



Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

CERTIFIED MAIL

March 8, 2017

Mr. John C. Person
Person & Craver, LLP
1776 K Street, N.W.
Suite 200
Washington, D.C. 20006

Dear Mr. Person:

FREEDOM OF INFORMATION ACT REQUEST (FOI 2016-00676)

This letter is our final response to the Freedom of Information Act (FOIA) request you submitted to this office for the following information:

1. "All documents that relate or pertain to the issuance of the DOE / BNI Consent Order dated June 1, 2015 (copy of Consent Order attached hereto)."
2. "All documents that relate or pertain to any meetings or negotiations between DOE and BNI leading up to the issuance of the June 1, 2015 Consent Order."
3. "All documents that relate or pertain to the implementation of Consent Order QA policy changes on the WTP vendor population."
4. "All documents that relate or pertain to any relationship between the issuance of the June 1, 2015 Consent Order and the computation of any BNI profit or fee."
5. "All Supplier Corrective Action Reports (SCARs) issued by BNI for the period January 1, 2014 through June 1, 2015."
6. "All SCARs issued by BNI for the period June 1, 2015 to present."
7. "All documents that pertain or relate to any increased supplier quality expectations from June 1, 2015 to present."
8. "All documents that pertain or relate to any increased or enhanced supplier quality assurance (QA) review standards from June 1, 2015 to present."
9. "All claims, REAs, or similar demands for additional money submitted by any vendor or subcontractor to BNI and all BNI responses thereto."
10. "All documents that relate or pertain to any communications between BNI and DOE concerning vendor or subcontractor claims on the Project."

11. "All documents that relate or pertain to any communications between BNI and any person other than DOE concerning vendor or subcontractor claims on the Project."
12. "All documents that relate or pertain to any directive or policy document from DOE regarding the allowance or disallowance of vendor or subcontractor claims on the Project."

In a series of multiple emails, voice mail messages and telephone conversations with me from April 22, 2016, through September 6, 2016, we discussed the scope of your request and provided multiple estimates of costs associated with those items of your request. In a telephone conversation on August 11, 2016, you requested this office provide you with an estimate of costs for Items 1, 5 and 6 of your request. This estimate was provided to you electronically on August 23, 2016. You responded on September 6, 2016, and agreed to pay estimated costs of 130 to 150 hours of search time at the average rate of \$45.00/hour plus 16%. This estimate did not include review or reproduction costs. This office has considered the remaining items of your request withdrawn.

Your request was assigned to the U.S. Department of Energy (DOE) Office of River Protection (ORP) and Bechtel National, Inc. (BNI) to conduct a search of records responsive to Items 1, 5 and 6. We provided you with a response to Item No. 1 on December 13, 2016. In response to Items 5 and 6, according to the U.S. Department of Energy's (DOE) contract with BNI, records relating to any procurement action by the Contractor are the property of the Contractor, with the exception of records that under 48 CFR 970.5232-3, Accounts, Records, and Inspections, are described as the property of the Government. The documents you have requested relate to procurement actions made by BNI, accordingly, the documents do not fall under 48 CFR 970.5232-3 and are not subject to the provisions of the FOIA. However, a search was conducted for any records in the possession of the Government and the enclosed documents were located. Certain deletions have been made in the documents pursuant to Exemptions 4 and 6 of the FOIA.

Exemption 4 protects "trade secrets and commercial or financial information obtained from a person and privileged or confidential." Information that is required to be submitted by a person is "confidential" for purposes of Exemption 4 if disclosure is likely to either (1) impair the Government's ability to obtain reliable and high quality necessary information in the future; or (2) cause substantial harm to the competitive position of the person from whom the information is obtained. Certain supplier names, purchase order numbers and/or related particular information has been redacted from the documents as this information could be used by a competitor to malign a competitor's product or otherwise could be used to damage a competitor or to gain a competitive advantage.

Exemption 6 provides that an agency may protect from disclosure all personal information if its disclosure would constitute a clearly unwarranted invasion of privacy by subjecting the individuals to unwanted communications, harassment, intimidation, retaliation, or other substantial privacy invasions by interested parties.

In invoking Exemption 6 we considered 1) whether a significant privacy interest would be invaded by disclosure of information, 2) whether release of the information would further the public interest by shedding light on the operations or activities of the government, and 3) whether in balancing the private interest against the public interest, disclosure would constitute a clearly unwarranted invasion of privacy.

We have determined that the public interest in the identity of the individuals whose names appear in the documents does not outweigh the individuals' privacy interests. Therefore, within the documents we have redacted the names of the employees belonging to BNI pursuant to Exemption 6 and its suppliers' pursuant to Exemptions 4 and 6.

This satisfies the standard set forth by the Attorney General by Memorandum on March 19, 2009, that the agency is justified in not releasing material if it reasonably foresees that disclosure would harm an interest protected by one of the statutory exemptions or disclosure is prohibited by law. This also satisfies DOE's regulation at Title 10, Code of Federal Regulations (CFR), Section 1004.1, to make records available which it is authorized to withhold under 5 U.S.C. 552 when it determines that such disclosure is in the public interest. Accordingly, we will not make discretionary disclosure of this information.

All releasable information in the documents has been segregated and is being provided to you. The undersigned individual is responsible for this determination. You have the right to appeal to the Office of Hearings and Appeals, as provided in 10 CFR 1004.8, for our determination. Your appeal shall be filed within 90 days after receipt of this letter. You may submit your appeal by e-mail to OHA.filings@hq.doe.gov, including the phrase "Freedom of Information Appeal" in the subject line. Alternatively, any such appeal may be made in writing to the following address: Director, Office of Hearings and Appeals (HG-1), U.S. Department of Energy, L'Enfant Plaza Building, 1000 Independence Avenue SW, Washington, D.C. 20585-1615. Should you choose to appeal, please provide this office with a copy of your e-mail or letter.

You may contact DOE RL's FOIA Public Liaison, Richard Buel, at (509) 376-3375, or by mail at P.O. Box 550, Richland, Washington, 99352 for any further assistance and to discuss any aspect of your request. Additionally, you may contact the Office of Government Information Services (OGIS) at the National Archives and Records Administration to inquire about the FOIA mediation services they offer. The contact information for OGIS is as follows: Office of Government Information Services, National Archives and Records Administration, 8601 Adelphi Road-OGIS, College Park, Maryland 20740-6001, e-mail at ogis@nara.gov; telephone at 202-741-5770; toll free at 1-877-684-6448; or facsimile at 202-741-5769.

This letter completes our response to your request. Costs associated with your request are as follows:

Reproduction – 103 pages @ \$.05/page (Items 5 and 6 only)	\$ 5.15
Search time – 10 hours @ \$41.04/hour	410.40
Search time – 12 hours @ \$110.74/hour	1,328.88
Search time - 25 hours @ \$88.72/hour	2,218.00
Review time – 20 hours @ \$54.70/hour	<u>\$ 1,094.00</u>

Total \$ 5,056.43

Your check should be made payable to the U.S. Department of Energy and forwarded to my attention at: DOE-RL, P.O. Box 550, Richland, Washington 99352.

If you have any questions regarding your request please contact me at (509) 376-6288.

Sincerely,

-Original Signed By-

Dorothy Riehle
Freedom of Information Act Officer
Office of Communications
and External Affairs

OCE:DCR

Enclosures

ISSUED BY
RPP-WTP POC

R11680557



Supplier Corrective Action Report

CPN-288865

Attachment 2

(b)(6)

7/29/15

Date: April 2, 2015

Document No.: 24590-WTP-SCAR-QA-15-021

Rev: 0

Title: (b)(4)

Description of Adverse Condition

(b)(4) Quality Assurance Manual, Bechtel Hanford Supplement, Section 2.5.2, requires the supplier to perform NDE in accordance with SNT-TC-1A, June 1980 Edition. This is contrary to WTP Specification 24590-WTP-3PS-MACS-T0004, Revision 6, Section 2.2, paragraph 2.2.1, which requires SNT-TC-1A 2001 Edition. Note: The specification is included in BNI PO (b)(4)

Identified by: (b)(6)

Title: NDE SME

Date: 4/2/2015

Validated by:

Title: Sr. QA Engineer

Date: 4/2/2015

Requirements/Referenced Documents

Requirement(s): WTP Specification 24590-WTP-3PS-MACS-T0004, Single Stage High Integrity Centrifugal Blowers (AG1), Revision 6, dated 6/2/2010, Section 2.2, paragraph 2.2.1

WTP Source Document Number: 24590-WTP-AR-QA-15-002

Adverse Condition Evaluation

Classification: Is the adverse condition determined to be significant?

☐ Yes ☒ No

Stop work: Is a stop work restriction required at this time to prevent the condition from recurring in the production line?

☐ Yes ☒ No

Stop shipment: Is a stop shipment restriction required to prevent the condition from affecting undelivered items or services?

☐ Yes ☒ No

Items/services received: Does the adverse condition impact items/services already received by the WTP Project?

☐ Yes - Addressed in PIER/NCR/CDR number:

☒ No - No impact (Justification required): No NDE has been performed and no fans have been shipped on the applicable PO (b)(4)

Supplier Response Guidance

The Supplier is requested to respond to WTP no later than May 13, 2015. The initial response must include a corrective action plan and the planned completion date of corrective actions or documentation to support completed corrective actions. The supplier corrective action must include the following:

- ☒ Supplier's corrective action document number
- ☐ Extent of condition (for significant conditions only)
- ☐ Cause Analysis (for significant conditions only)
- ☒ Corrective Actions



Supplier Corrective Action Report

CCN-280865

Attachment 2

(b)(6)

7/29/15

Date: April 2, 2015

Document No.: 24590-WTP-SCAR-QA-15-021

Rev: 0

Title: (b)(4)

Upon resolution of the adverse condition, the supplier is requested to provide a copy of their closed corrective action document and objective evidence to substantiate closure. Responses should be sent to wtpcdc@bechtel.com with wtpsq@bechtel.com on copy. Note: All attachments should be PDF files.

Corrective Action Verification (For WTP use)

The following documents were reviewed and found acceptable to close this SCAR:

CCN 279694, email, from (b)(4), (b)(6) to (b)(6) BNL, "PP253 Bechtel Audit CAR Response," dated July 14, 2015 which includes CAR No. 86, closed July 13, 2015 (b)(4) Quality Assurance Manual, Bechtel Hanford Supplement, revision 2, July 13, 2015, section 2.S.2 and Procedure #2.1.G, "QA/QC Personnel Qualification," revision 9, July 13, 2015.

Supplier Corrective Action Report Closure Approval

Concurrence by:	(b)(6)	NDE SME	7/23/15
		Title	Date
Verified by:		Sr. QA Engineer	7/23/2015
		Title	Date
Approved by:		SQA Manager	7/29/15
		Title	Date

Revision History:

Revision	Date	Reason for Revision
0	July 23, 2015	Initial issue.



Supplier Corrective Action Report

CCN: 266865

Attachment 7

(b)(6) 7/29/15

Date: April 2, 2015

Document No.: 24590-WTP-SCAR-QA-15-020

Rev: 0

Title: (b)(4)

Description of Adverse Condition

(b)(4), (b)(6)

Condition #1. The Record of Lead Auditor Qualification for (b)(4) was evaluated and certified by the (b)(4) President, rather than the QA Manager.

(b)(4)

Condition #2. Purchase orders to service suppliers do not flow down Suspect/Counterfeit Item (S/CI) requirements to sub-tier suppliers.

(b)(4)

Condition #3. The following POs required a Certificate of Conformance (C of C) from the supplier for services rendered; however, the services were accepted by (b)(4) without a C of C:

- PO (b)(4)
- PO (b)(4)
- PO (b)(4)

Identified by (b)(6)

Title: QA Engineer

Date: 4/2/2015

Validated by

Title: Sr. QA Engineer

Date: 4/2/2015

Requirements/Referenced Documents

Requirement(s):

Requirement #1. 18.2.G, Auditor Qualifications, Rev 0, dated 1/18/2013, Section C.2.g

Requirement #2. 4.2.G, Control of Suspect & Counterfeit Items, Rev 0, dated 12/5/2007, Section IV.A.2.c and IV.B.2

Requirement #3. 10.1.G, Receiving Inspection, Rev 9, dated 8/18/2014, Section C.4.a and b

WTP Source Document Number: 24590-WTP-AR-QA-15-002

Adverse Condition Evaluation

Classification: Is the adverse condition determined to be significant?

☐ Yes ☒ No

Stop work: Is a stop work restriction required at this time to prevent the condition from recurring in the production line?

☐ Yes ☒ No

Stop shipment: Is a stop shipment restriction required to prevent the condition from affecting undelivered items or services?

☐ Yes ☒ No

Items/services received: Does the adverse condition impact items/services already received by the WTP Project?

☐ Yes - Addressed in PIER/NCR/CDR number:

☒ No - No impact (Justification required): No fans have been shipped on the applicable PO (b)(4)

(b)(4)



Supplier Corrective Action Report

CCN-280865

Attachment

(b)(6) 7/29/15

Date: April 2, 2015

Document No.: 24590-WTP-SCAR-QA-15-020

Rev: 0

Title: (b)(4)

Supplier Response Guidance

The Supplier is requested to respond to WTP no later than May 13, 2015. The initial response must include a corrective action plan and the planned completion date of corrective actions or documentation to support completed corrective actions. The supplier corrective action must include the following:

- ☒ Supplier's corrective action document number
- ☐ Extent of condition (for significant conditions only)
- ☐ Cause Analysis (for significant conditions only)
- ☒ Corrective Actions

Upon resolution of the adverse condition, the supplier is requested to provide a copy of their closed corrective action document and objective evidence to substantiate closure. Responses should be sent to wtpcdc@bechtel.com with wtpsqu@bechtel.com on copy. Note: All attachments should be PDF files.

Corrective Action Verification (For WTP use)

The following documents were reviewed and found acceptable to close this SCAR:

CCN 279694, email, from (b)(4), (b)(6) to (b)(6) BNL, "PP253 Bechtel Audit CAR Response," dated July 14, 2015 which includes (b)(4) CAR No. 87, closed July 13, 2015; (b)(4) Procedure #18.2.G, "Auditor Qualifications," revision 1, July 13, 2015, sections 2.f(1) and 2.g; (b)(4) Procedure 4.1.G, "Procurement Document Generation, revision 15, July 13, 2015, Exhibit I; and corrected purchase orders (b)(4) dated July 22, 2015.

Supplier Corrective Action Report Closure Approval

Concurrence by:	(b)(6)	QA Engineer	7/22/2015
		Title	Date
Verified by:		Sr. QA Engineer	7/22/2015
		Title	Date
Approved by:		SQn Manager	7/29/15
		Title	Date

Revision History:

Revision	Date	Reason for Revision
0	July 23, 2015	Initial issue.



ISSUED BY
RPP-WTP PDC

R11740227

CCN-282832-

Attachment 1

(b)(6) 9/8/15

Supplier Corrective Action Report

Date: September 2, 2015

Document No.: 24590-WTP-SCAR-QA-14-033

Rev: 0

Title: (b)(4) SNT-TC-1A Edition, and NDE Certification Timeframes (Rev 7, 10/1/14)

Requirements/Referenced Documents

Requirement(s): Engineering Specification For Pressure Vessel Design and Fabrication

2.0 Codes and Industry Standards

2.1 The Seller shall apply the latest issue, including addenda, at the time of request for Quote for the following codes and industry standards. (

2.2.1.3 ASME Section V, Nondestructive Examination, American Society of Mechanical Engineer

2.2.2.3 SNT-TC-1A, Recommended Practice No. SNT-TC-1A, American Society for Nondestructive Testing, Inc.

Date of request for Quote: 2003

Corresponding NQA-1 Requirement: 2

WTP Source Document Number: 24590-WTP-3PS-MV00-T0001, Rev. 1

Description of Adverse Condition

(b)(4) Written Practice for Qualification and Certification of NDT Personnel, TP-2.7, Rev. 7, references ASNT Recommended Practice SNT-TC-1A, 2006 Edition. This is contrary to the requirements in the code year of record, ASME Boiler and Pressure Vessel Code, Section VIII, 2004 Edition. Because that is the code of record, ASME BPV Code Section V, Article 1, 2004 also applies. That code references SNT-TC-1A, 2001 Edition. SNT-TC-1A, 2001 Edition requires recertification of Level I and II personnel a maximum of every 3 years, while SNT-TC-1A, 2006 Edition changed this to a maximum of every 5 years.

In addition, the certification/recertification timeframes of several NDE personnel are or have been greater than the 5 years maximum required in TP-2.7, paragraph 13.1 "All certified Level I and II personnel shall be recertified at intervals not to exceed five (5) years..." Specifically, the (b)(4) Level II(L) certification for (b)(4) shows an initial certification date of (b)(4), (b)(6) 3/9/09, a recertification of 1/10/13, and a 'practical reexamination' (not a recertification) on 10/2/14 (which is beyond the maximum 5 years from the initial certification date of 3/9/09). The current recertification due date is 10/2/19, which is 5 years from the practical reexamination but is greater than 5 years from the 1/10/13 recertification. Another example is the certification for (b)(4), (b)(6) which shows an initial (b)(4) Level II(L) certification date of 3/9/2009, a 'recertification' of 10/1/2014, (which is beyond the maximum 5 years from the initial certification date of 3/9/2009), and a 'practical reexamination' on 1/16/13 (which is not listed as a 'recertification' as in (b)(4), (b)(6)).

For both of these people, the recertification on 1/10/13 was not with a flawed sample but the ones on 10/1 and 10/2/14 were. Flawed samples are required per TP-2.7, paragraphs 11.2 and 9.4.2.

This qualification discrepancy was also identified upon review of the records of (b)(4), (b)(6)

(b)(4), (b)(6)

Identified by:	(b)(6)	Title:	NDE Level III/Welding Technical Specialist	Date:	December 11, 2014
Validated by:	(b)(6)	Title:	Sr. QA Engineer/ATL	Date:	December 11, 2014

Adverse Condition Evaluation

Classification: ☒ Non-significant? ☐ Significant

Impact evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☐ Yes - Addressed in WTP-CR / NCR / CDR:



Supplier Corrective Action Report

CEN-282832

Attachment 1

(b)(6) 9/8/15

Date: September 2, 2015

Document No.: 24590-WTP-SCAR-QA-14-033

Rev: 0

Title: (b)(4) SNT-TC-1A Edition, and NDE Certification Timeframes (Rev 7, 10/1/14)

X No – No impact (Justification required): Does not directly affect hardware.

Is a stop work required prevent the condition from recurring in the supplier's production line? ☐ Yes X No

Is a stop shipment required to prevent the condition from affecting undelivered items / services? X Yes ☐ No

Restriction(s):

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsgu@bechtel.com by February 23, 2015. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:

☐ Cause analysis

X Extent of condition

☐ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsgu@bechtel.com.



Supplier Corrective Action Report

CCN: 282832

Attachment 1

(b)(6) 9/8/15

Date: September 2, 2015

Document No.: 24590-WTP-SCAR-QA-14-033

Rev: 0

Title: (b)(4) SNT-TC-1A Edition, and NDE Certification Timeframes (Rev 7, 10/1/14)

Corrective Action Verification

Supplier corrective action plan received (See CCN) N/A

Supplier corrective action plan verified acceptable (See CCN) N/A

Supplier corrective actions completed CCN 276491 - Email response received from (b)(4), (b)(6) dated February 18, 2015; CAR 14-42 was recreated to address the deficiencies. Supplier stated that Exhibit 2 in TP-2.7, Rev. 8 has been revised to change Performance Evaluation to Performance Evaluation/3 yr. Recertification, meeting the requirements of SNT-TC-1A, 2001.

The Certifications for all Level I and II NDE inspectors have been reviewed and revised if needed to correct the recertification due date to comply with the 5 year requirement of SNT-TC-1A, 2006. Additionally, the (b)(4) certifications for (b)(4), (b)(6) and (b)(4), (b)(6) have been performed again using flawed samples to comply with the requirements identified by the BNI Level III inspector present for the triennial audit.

CCN 277172 Supplier response (CCN 276491) rejected by BNI on March 4, 2015, because the Supplier did not provide the information and objective evidence required by the SCAR form, i.e., the extent of condition is not addressed or present in the Supplier's CAR 14-42. The CAR does not discuss actions taken regarding indeterminate nondestructive evaluation (NDE) results for items from NDE Examiners whose certification periods were exceeded and before recertification was accomplished.

CCN 276504 Email response received from (b)(4), (b)(6) dated March 12, 2015. Supplier stated that the extent of condition was performed and corrections were made to all certification identified in the evaluation. No action was taken related to the inspectors whose certification periods were exceeded.

CCN 277293 Email response received from (b)(4), (b)(6) dated April 2, 2015. Exhibit 2 in TP-2.7, Rev 8 has been revised to change Performance Evaluation to Performance Evaluation/3 yr. Recertification, meeting the requirements of SNT-TC-1A, 2001 as identified by the BNI level III.

An extent of condition evaluation was performed. This evaluation found that none of (b)(4) inspectors had exceeded the 3 year or 5 year re-certification requirements.

All of (b)(4) inspectors have been re-certified using a flawed sample, and the certifications have been recorded on the revised certification form, which meets the 3 year re-certification requirement of SNT-TC-1A, 2001 and the 5 year re-certification requirement of SNT-TC-1A, 2006. The (b)(4) certifications for (b)(4), (b)(6) and (b)(4), (b)(6) have been attached as a sample of the re-certifications performed.

CCN 277892 Supplier response (CCN 277293) rejected by BNI on April 14, 2015, because the supplier did not provide the information and objective evidence required by the SCAR form, i.e., evidence of the extent of condition is not present in the Supplier's CAR 14-42, Rev. 1. The CAR further states that "an extent of condition evaluation was performed. This evaluation found that none of (b)(4) inspectors had exceeded the 3 year or 5 year re-certification requirements." The extent of condition documentation was not supplied as evidence of this activity.

The Supplier further states in the CAR that "Exhibit 2 in TP-2.7, Rev 8 has been revised to change Performance Evaluation to Performance Evaluation/3 yr. Recertification, meeting the requirements of SNT-TC-1A, 2001 as identified by the BNI level III." No evidence was provided to substantiate this statement, i.e., a signed, approved copy of TP-2.7, Revision 8. The CAR does not discuss actions taken regarding indeterminate nondestructive evaluation (NDE) results for items from NDE Examiners whose certification periods were exceeded and before recertification was accomplished.



Supplier Corrective Action Report

CCN-202032

Attachment 1

(b)(6) 9/8/15

Date: September 2, 2015

Document No.: 24590-WTP-SCAR-QA-14-033

Rev: 0

Title: (b)(4) SNT-TC-1A Edition, and NDE Certification Timeframes (Rev 7, 10/1/14)

The CAR states that "all of (b)(4) inspectors have been re-certified using a flawed sample, and the certifications have been recorded on the revised certification form, which meets the 3 year re-certification requirement of SNT-TC-1A, 2001 and the 5 year recertification requirement of SNT-TC-1A, 2006. The (b)(4) certifications for (b)(4),(b)(6) and (b)(4),(b)(6) (b)(4) have been attached as a sample of the re-certifications performed." The requirement was that the Supplier provide the (b)(4) certifications for all of the inspectors who were re-certified using a flawed sample and recorded on the revised certification form.

CCN 277304 Email from (b)(4),(b)(6) dated April 30, 2015. Supplier stated: No change to (b)(4) initial response to 24590-WTP-SCAR-QA-14-033 will be made.

CCN 278533 The SCAR response (CCN 277304) rejected by BNI on May 14, 2015, because the Supplier did not provide all of the information and objective evidence required by the SCAR form. The SCAR response must include a copy of Supplier CAR# 14-42, Rev.2; the nondestruction examination certification records for the (b)(4) certifications for all of the inspectors (b)(4) who were re-certified using a flawed sample and recorded on the revised certification form; the extent of condition on the (b)(4) certification for all of the inspectors who were recertified; an approved and issued copy of TP-2.7, Revision 8; and an answer to the question related to the time from date of practical without flawed part to date of practical with flawed part. Were any checks of work done during these dates? Objective evidence that the Supplier did all this is required.

CCN 278815 Email from (b)(4),(b)(6) dated June 30, 2015, No change to (b)(4) response except certification records (b)(4) provided.

CCN 278733 The SCAR response (CCN 278815) rejected by BNI on July 7, 2015, because the Supplier did not provide all of the information and objective evidence required by the SCAR form, i.e., the extent of condition is not addressed or present in the Supplier's CAR 14-42. As an extent of condition assessment, the Supplier was required to verify that no Inspectors who were administered a second Practical Exam due to the first one not having a flawed specimen, did inspections during the time between the two Practical Exams. If any inspections were identified as having been performed by the subject Inspectors were the inspections re-performed and documented? Evidence of such must be provided in addition to the complete SCAR response documentation package.

CCN 280885 Email from (b)(4),(b)(6) dated August 21, 2015. (b)(4) provided complete corrective action documentation (b)(4) including review of the extent of condition. Objective evidence was provided.

Supplier corrective actions verified complete and SCAR closed (See CCN 280885)

Supplier Corrective Action Report Closure Approval

Concurrence by:

(b)(6)

NDE Level III

9/2/15
Date

Verified by:

Sr. QA Engineer/ATL

09022115
Date



Supplier Corrective Action Report

CEN-282832

Attachment 1

(b)(6) 9/8/15

Date: September 2, 2015

Document No.: 24590-WTP-SCAR-QA-14-033

Rev: 0

Title: (b)(4) SNT-TC-1A Edition, and NDE Certification Timeframes (Rev 7, 10/1/14)

Approved by:	(b)(6)	Quality Assessments Manager	9-3-15
		Title	Date

Revision History:

Revision	Reason for Revision
0	Initial issue.



R11711471

ECN: 276275

Attachment 1

(b)(6)

3/5/15

Supplier Corrective Action Report

Date: March 2, 2015

ISSUED BY
RPP-WTP PDG

Document No.: 24590-WTP-SCAR-QA-14-027

Rev: 0

Title: (b)(4) did not provide sub-contractor CGD procedure

Description of Adverse Condition

(b)(4) did not provide sub-contractor's (b)(4) CGD procedure on the Caustic Scrubber contract (b)(4) to WTP for review as required by Section 2 Technical Specification 2.5.26 "Commercial Grade Dedication Documentation".

Identified by: (b)(6)

Title: Senior Procurement Engineer

Date: Dec. 11, 2014

Validated by:

Title: Sr. QA Engineer - ATL

Date: March 2, 2015

Requirements/Referenced Documents

Requirement(s): (b)(4) Section 2 Technical Specification 2.5.26 "Commercial Grade Dedication Documentation".

WTP Source Document Number: 24590-WTP-AR-QA-14-034

Adverse Condition Evaluation

Classification: Is the adverse condition determined to be significant?

☐ Yes ☒ No

Stop work: Is a stop work restriction required at this time to prevent the condition from recurring in the production line?

☐ Yes ☒ No

Stop shipment: Is a stop shipment restriction required to prevent the condition from affecting undelivered items or services?

☐ Yes ☒ No

Items/services received: Does the adverse condition impact items/services already received by the WTP Project?

☐ Yes - Addressed in PIER/NCR/CDR number:☒ No - No impact (Justification required): Affected CGD plans are currently Code Status 3

Supplier Response Guidance

The Supplier is requested to respond to WTP no later than **February 23, 2015**. The initial response must include a corrective action plan and the planned completion date of corrective actions or documentation to support completed corrective actions. The supplier corrective action must include the following:

- ☒ Supplier's corrective action document number
- ☐ Extent of condition (for significant conditions only)
- ☐ Cause Analysis (for significant conditions only)
- ☒ Corrective Actions

Upon resolution of the adverse condition, the supplier is requested to provide a copy of their closed corrective action document and objective evidence to substantiate closure. Responses should be sent to wtpdc@bechtel.com with wtpsq@bechtel.com on copy. Note: All attachments should be PDF files.



Supplier Corrective Action Report

CCN: 276275

Attachment 1

(b)(6)

3/5/15

Date: March 2, 2015

Document No.: 24590-WTP-SCAR-QA-14-027

Rev: 0

Title: (b)(4)

did not provide sub-contractor CGD procedure

Corrective Action Verification (For WTP use)

Response received 02.18.2015, CCN: 276489 regarding CCN: 275267 Supplier Corrective Action Report # 24590-WTP-SCAR-QA-14-027. Supplier responded with a clear statement of the cause of the adverse condition, identification of actions taken to correct the cause of the adverse condition and the internal corrective action report number initiated for the SCAR. The Supplier revised the PO issued to the sub-tier supplier requesting submittal of the CGD procedure. This procedure was forwarded to BNI WTP for code status which was received as code status 1. The Supplier also placed a restriction on its ASL requiring any CGD plans/procedures to be submitted and approved prior to shipment of a material on future BNI projects. This restriction was entered to prevent recurrence of the adverse condition. The Supplier's related corrective action was CAR 14-40, Revision 0. The actions are complete as described and substantiated by the evidence provided.

Supplier Corrective Action Report Closure Approval

Concurrence by:	(b)(6)	Sr. QA Engineer Title	02.02.2015 Date
Verified by:	(b)(6)	Sr. QA Engineer Title	03.02.2015 Date
Approved by:	(b)(6)	SQn Manager Title	3/4/15 Date

Revision History:

Revision	Date	Reason for Revision
0	March 2, 2015	Initial issue.



Supplier Corrective Action Report

ISSUED BY
RPP-WTP PDC

CCN: 277885

Attachment 1

(b)(6)

4/13/2015



R11713350

Date: April 3, 2015

Document No.: 24590-WTP-SCAR-QA-14-026

Rev: 0

Title: (b)(4) Implementing procedures referenced incorrect document names or numbers

Description of Adverse Condition

(b)(4) QA implementing procedures and technical procedures referenced incorrect or obsolete titles for applicable procedures. For example: TP-1.11, "Temporary Weld Attachments," Revision 2, dated 7.10.2010, Section 2.0 references TP-1.9, "Weld Repair," the actual title is "Weld Defect Removal and Restoration Procedure."

TP-2.3, "Engineering Software Management," Revision 2, dated 1.25.2013 Section 2 references QA 17.1, "Quality Assurance Records," actual title is QA 17.1, "Records," and QA 6.0, "Document Control," - actual document number is QA-6.1, "Document Control." TP-8.0, "Validation and Verification of Engineering Design Software," Revision 3, dated 1.25.2013, Sections 2, 4.2, 8.2 reference QA 6.0, "Document Control," actual document number should be QA-6.1, section 9.0 references QA 17.1 "Quality Assurance Records," - title should be QA-17.1, "Records." QA-18.1, "Audits," Revision 2, dated July 29, 2014, Section 1.2 references TP-19.2, "Internal Audits," actual document number should be AP-3.1, "Internal Audit," Revision 3, July 14, 2014.

TP-2.2, "Engineering Design," Revision 8, dated July 10, 2014, Section 2 et seq references the procedure numbers as (b)(4) QA-X.X whereas QA-5.1 Section 3.2 states the company QA sections are numbered as QA-X.X. This is also true in Revision 9, dated 12.4.2014

Identified by: (b)(6)

Title: Sr. QA Engineer

Date: December 11, 2014

Validated by: Name of WTP Validator

Title:

Date:

Requirements/Referenced Documents

Requirement(s): QA-5.1, "Preparation, Review, and Approval of Instructions, Procedures, and Drawings," Revision 0, dated January 31, 2013, Section 3.2

WTP Source Document Number: 24590-WTP-AR-QA-14-034

Adverse Condition Evaluation

Classification: Is the adverse condition determined to be significant?

☐ Yes ☒ No

Stop work: Is a stop work restriction required at this time to prevent the condition from recurring in the production line?

☐ Yes ☒ No

Stop shipment: Is a stop shipment restriction required to prevent the condition from affecting undelivered items or services?

☐ Yes ☒ No

Items/services received: Does the adverse condition impact items/services already received by the WTP Project?

☐ Yes - Addressed in PIER/NCR/CDR number:

☒ No - No impact (Justification required): Internal procedural reference issues have no impact on deliverable to BNI WTP.

Supplier Response Guidance

The Supplier is requested to respond to WTP no later than February 23, 2015. The initial response must include a



Supplier Corrective Action Report

CCN: 277885

Attachment 1

4/13/2015

(b)(6)

Date: April 3, 2015

Document No.: 24590-WTP-SCAR-QA-14-026

Rev: 0

Title: (b)(4) Implementing procedures referenced incorrect document names or numbers

corrective action plan and the planned completion date of corrective actions or documentation to support completed corrective actions. The supplier corrective action must include the following:

- ☒ Supplier's corrective action document number
- ☐ Extent of condition (for significant conditions only)
- ☐ Cause Analysis (for significant conditions only)
- ☒ Corrective Actions

Upon resolution of the adverse condition, the supplier is requested to provide a copy of their closed corrective action document and objective evidence to substantiate closure. Responses should be sent to wtpdc@bechtel.com with wtpsgu@bechtel.com on copy. Note: All attachments should be PDF files.

Corrective Action Verification (For WTP use)

Initial corrective actions received from Supplier were deemed inadequate for SCAR closure (CCN 276499) Supplier was formally notified of the response rejection (CCN 277880). Subsequent response with additional objective evidence received from the Supplier (CCN 277294) was determined to be adequate to address the issues identified in the SCAR. Objective evidence included revisions: TP-1.11, "Temporary Weld Attachments," Revision 3, dated February 25, 2015; TP-2.2, "Engineering Design," Revision 11, dated March 31, 2015; TP-2.3, "Engineering Software Management," Revision 3, dated February 25, 2015; TP-8.0, "Validation and Verification of Engineering Design Software," Revision 5; and TP-18.2, "Internal Audit," Revision 0, dated July 28, 2014.

Supplier Corrective Action Report Closure Approval

Concurrence by:	(b)(6)	Sr. QA Engineer/ATL	04.03.2015
		Title	Date
Verified by:		Software Qualification Lead	4-3-15
		Title	Date
Approved by:		SQn Manager	4-3-15
		Title	Date

Revision History:

Revision	Date	Reason for Revision
0	April 3, 2015	Initial issue.



R11761691

CCN-285635

Attachment 1

(b)(6) 2/9/16

Supplier Corrective Action Report

Number: 24590-WTP-SCAR-QA-14-016

Rev: 0

Date: September 29, 2014

Title: (b)(4) CGD Verification Plan, VP (b)(4) 24014016-2, specific (b)(4)
destructive testing sample size vs. nondestructive testing sample size.

ISSUED BY

RPP-WTP PDC

Requirements/Referenced Documents

Requirement(s):

(b)(4) technical procedure (b)(4) TECH-03, *Commercial Grade Item Dedication Procedure*, Revision 16, dated April 5, 2013, Section 2.1.7, *Identification of the Sampling Plan*, states in part, "... The preparation and documentation of sampling plans will be in accordance with (b)(4) procedure SVP-46 (latest revision)." (b)(4)

And,

(b)(4) *Standard Verification Plan*, SVP-46, Revision 6, dated October 1, 2013, Section 2.1.3, *Destructive/Potentially Destructive Sample Size*, states in part, "Destructive/potentially destructive tests are those tests that damage the item or potential damage/significantly degrade the item..."

And,

Sub-section 2.1.3.1, *Destructive Sample Size = 1*, states in part, "A sample size of 1 for destructive/potentially destructive tests is used..."

And,

(b)(4) The *Verification Plan*, VP (b)(4) 24014016-2, Revision 1, for the Commercial Dedication of 1" check valves, requires a Cracking Pressure Test be performed as Critical Characteristic #4 (CC#4) of the dedication plan.

In addition, section 2.5 of the sample plan, Item 5, *Lot Traceability*, requires the sample size for verifying CC#4 to be 1 of 138 items (valves.) Furthermore, Item 5, *Verification*, justifies the sample size, as being in compliance with the sampling guidance provided in EPRI TR-017218-R1 for destructive testing.

WTP Source Document Number: ORP Supplier Audit (b)(4)

Description of Adverse Condition

This condition was identified during ORP Supplier Audit (b)(4) by the Department of Energy Auditors.

The Cracking Pressure Test (CC#4) was performed on one (1) of 138 check valves for dedicating the check valves.

The application of the destructive sampling plan was not accompanied by a basis for selection that adequately justified the use of the destructive sampling plan.

The sample size should have been 24 items.

Identified by (b)(6)

Title: SQAE - ATL

Date: 9/11/14

Validated by

Title: SQAE -

Date: 9/29/14



Supplier Corrective Action Report

CCN-285635

Attachment 1

(b)(6) 2/9/16

Number: 24590-WTP-SCAR-QA-14-016

Rev: 0

Date: September 29, 2014

Title: (b)(4) CGD Verification Plan, VP (b)(4) 21014016-2, specific (b)(4)
destructive testing sample size vs. nondestructive testing sample size.

Adverse Condition Evaluation

Classification: Is the adverse condition determined to be significant? ☒ Yes ☐ No

Stop work: Is a stop work restriction required at this time to prevent the condition from reoccurring in the production line?
☐ Yes ☒ No

Stop shipment: Is a stop shipment restriction required to prevent the condition from affecting undelivered items or services? ☐ Yes ☒ No

Items/services already shipped/provided: Does the adverse conditions have a potential impact on items or services previously shipped or provided to the WTP Project?

☐ Yes - Addressed in PIER/NCR/CDR number.

☒ No - No impact (Justification required): Supplier's corrective action response and proposed corrective action plan will determine if items previously shipped will be impacted.

Supplier Response Guidance

The Supplier is requested to respond to WTP no later than **October 29, 2014**. The initial response must include a corrective action plan and the planned completion date of corrective actions or documentation to support completed corrective actions. The supplier corrective action must include the following:

- ☒ Supplier's corrective action document number
- ☐ Extent of condition (for significant conditions only)
- ☐ Cause Analysis (for significant conditions only)
- ☒ Corrective Actions

Upon resolution of the adverse condition, the supplier is requested to provide a copy of their closed corrective action document and objective evidence to substantiate closure. Responses should be sent to wipddc@bechtel.com and cc: wtpsq@bechtel.com. Note: All attachments should be PDF files.

Corrective Action Verification (For WTP use)

(b)(4) NOTE: this SCAR was issued to (b)(4) with the "significant" blocks inadvertently checked "yes." The SCAR was issued as a result of a "Priority Level 3 finding related to weaknesses in BNI's oversight of the supplier," #OFI U-14-QAD-RPPWTP-002-F01 in the Source Document. The finding is not "significant" per BNI WTP procedure and the response provided by (b)(4) addresses the cause and Corrective Actions necessary to explain and correct the identified issue as well as determine if items previously shipped were impacted. There was no impact on previously shipped items.

The following documents were reviewed to verify the corrective action response and close this SCAR:

(b)(4) CCN 284906 (b)(4) Response to SCAR-QA-14-016

(b)(4) CCN 284915 - SME Acceptance of (b)(4) Response to SCAR-QA-14-016 - PROCESS AS EMAIL

(b)(4) (b)(4) Corrective Action Report (b)(4) CAR-23, revised December 3, 2015, closed December 15, 2015



Supplier Corrective Action Report

CCN-285635-

Attachment 1

(b)(6)

2/9/16

Number: 24590-WTP-SCAR-QA-14-016

Rev: 0

Date: September 29, 2014

Title: (b)(4) CGD Verification Plan, VP. (b)(6) 21014016-2, specifies (b)(4) destructive testing sample size vs. nondestructive testing sample size.

Corrective Action Verification (For WTP use)	
Technical Evaluation, TE-M-29, Revision 1, December 9, 2015	
(b)(4)	Verification Plan, VP. (b)(6) 21014016-1, Revision 2, December 11, 2015
(b)(4)	Verification Plan, VP. (b)(6) 21014016-2, Revision 2, December 11, 2015
Supplier Submittal 24590-QL-BPO-PV21-00006-02-00002, Revision 00D, December 16, 2015 (Code 1)	
The documents are acceptable to close the SCAR.	
Follow-up required: No	

Supplier Corrective Action Report Closure Approval						
Concurrence by:	(b)(6)	<table border="0"><tr><td>Sr. QA Engineer</td><td>1/28/2016</td></tr><tr><td>Title</td><td>Date</td></tr></table>	Sr. QA Engineer	1/28/2016	Title	Date
Sr. QA Engineer	1/28/2016					
Title	Date					
Verified by:	(b)(6)	<table border="0"><tr><td>Sr. QA Engineer</td><td>1/28/2016</td></tr><tr><td>Title</td><td>Date</td></tr></table>	Sr. QA Engineer	1/28/2016	Title	Date
Sr. QA Engineer	1/28/2016					
Title	Date					
Approved by:	(b)(6)	<table border="0"><tr><td>Quality Assessment</td><td>2/8/16</td></tr><tr><td>Title Mgr</td><td>Date</td></tr></table>	Quality Assessment	2/8/16	Title Mgr	Date
Quality Assessment	2/8/16					
Title Mgr	Date					

Revision History:

Revision	Date	Reason for Revision
0		Initial issue.



R11760849

(b)(6)

CCN 279717
Attachment 1

Supplier Corrective Action Report

Number: 24590-WTP-SCAR-QA-14-015

Rev: 0

Date: June 4, 2015

Title: (b)(4) QAM's organization chart (Fig. 1) did not accurately depict Supplier's Organizational Structure

ISSUED BY
RPP-WTP-PDC

Requirements/Referenced Documents

Requirement(s):

NQA-1-2000, Requirement 1, *Organization*, Paragraph 100, Basic: The organizational structure, functional responsibilities, levels of authority, and lines of communications for activities affecting quality shall be documented;

and,

The (b)(4) Quality Assurance Manual (QAM), Revision 15, dated March, 3, 2014, paragraph 1.0, states in part, "The organizational structure of (b)(4) is shown in Figure 1. (QAM, Section 1.0 - Organization)"

WTP Source Document Number: ORP Supplier Audit U-14-QAD-RPPWTP-002

Description of Adverse Condition

This condition was identified during ORP Supplier Audit U-14-QAD-RPPWTP-002, by the Department of Energy Auditors.

Contrary to the above, the organization chart (Figure 1), in the (b)(4) QAM, Section 1.0, *Organization*, did not accurately reflect the lines for reporting and authority of (b)(4) organizational structure.

Identified by (b)(6)	Title: SQAE - ATL	Date: 9/11/14
Validated by (b)(6)	Title: SQAE	Date: 9/29/14

Adverse Condition Evaluation

Classification: Is the adverse condition determined to be significant? ☐ Yes ☒ No

Stop work: Is a stop work restriction required at this time to prevent the condition from reoccurring in the production line?
☐ Yes ☒ No

Stop shipment: Is a stop shipment restriction required to prevent the condition from affecting undelivered items or services? ☐ Yes ☒ No

Items/services already shipped/provided: Does the adverse condition have a potential impact on items or services previously shipped or provided to the WTP Project?

☐ Yes - Addressed in PIER/NCR/CDR number:

☒ No - No impact (Justification required): (b)(4) organizational structure has no impact on items previously shipped to the WTP Project.



Supplier Corrective Action Report

CCN 279717
Attachment-1
(b)(6)
1/21/16

Number: 24590-WTP-SCAR-QA-14-015

Rev: 0

Date: June 4, 2015

Title: (b)(4) QAM's organization chart (Fig. 1) did not accurately depict Supplier's Organizational Structure

The Supplier is requested to respond to WTP no later than October 29, 2014. The initial response must include a corrective action plan and the planned completion date of corrective actions or documentation to support completed corrective actions. The supplier corrective action must include the following:

- ☒ Supplier's corrective action document number
- ☐ Extent of condition (for significant conditions only)
- ☐ Cause Analysis (for significant conditions only)
- ☒ Corrective Actions

Upon resolution of the adverse condition, the supplier is requested to provide a copy of their closed corrective action document and objective evidence to substantiate closure. Responses should be sent to wtpdc@bechtel.com and cc: wtpsqu@bechtel.com. Note: All attachments should be PDF files.

Corrective Action Verification (For WTP use)

(b)(4) NOTE: this SCAR was issued to (b)(4) with the "significant" blocks inadvertently checked "yes." The SCAR was issued as a result of an "opportunity for improvement" #OFI U-14-QAD-RPPWTP-002-001 in the Source Document. The finding is not "significant" per BNI WTP procedure and the response provided by (b)(4) addresses the cause and Corrective Actions necessary to explain and correct the identified issue. (b)(4)

The following documents were reviewed to verify the corrective action response and close this SCAR:

(b)(4) CCN 284897, (b)(4) Response to SCAR-QA-14-015

(b)(4) (b)(4) Corrective Action Report, (b)(4) CAR-22, revised December 3, 2015, closed December 4, 2015

(b)(4) (b)(4) Quality Program Organization Chart, revision 0, December 4, 2015

The documents are acceptable to close the SCAR.

Follow-up required: N/A

Supplier Corrective Action Report Closure Approval

Concurrence by:	(b)(6)	Sr. QA Engineer	12-22-2015
		Title	Date
Verified by:	(b)(6)	Sr. QA Engineer	12-22-2015
		Title	Date
Approved by:	(b)(6)	Quality Assessment	1/20/16
		Title	Date



Supplier Corrective Action Report

~~CEN 279717~~ (b)(6)
~~Attachment 1~~ 1/21/16

Number: 24590-WTP-SCAR-QA-14-015

Rev: 0

Date: June 4, 2015

Title: (b)(4) QAM's organization chart (Fig. 1) did not accurately depict Supplier's Organizational Structure

Revision History:

Revision	Date	Reason for Revision
0		Initial issue.



ISSUED BY
RPP-WTP PDC



CCN-290944

Attachment 1

(b)(6)

9/6/16

Supplier Corrective Action Report

Number: 24590-WTP-SCAR-QA-14-010

Rev: 0

Date: August 29, 2016

Title: (b)(4)

Inaccurate Calculations for Caustic Scrubbers

To:

(b)(4), (b)(6)

(b)(4)

From:

Supplier Qualification Manager

Bechtel National, Inc.

2435 Stevens Center Place

Richland, WA 99354

REQUIREMENTS/ REFERENCED DOCUMENTS

QA Program/Procedure Requirement: QA-3.1, 6.1 : The design analysis shall be sufficiently detailed and organized to allow a person technically qualified in the subject to review and understand the analyses to the extent of verifying the adequacy of the results meeting the design requirements without recourse to the originator.

NQA-1 Requirement: Criterion 3, Design Control

Supplier CAR Number: CAR-14-26

WTP Source Document Number: S-12-WCD-RPPWTP-031 (CCN 258298)

DESCRIPTION OF DEFICIENCY

Contrary to the requirement above, the inlet process boundary conditions for the caustic scrubbers are not stated so that a person technically qualified in the subject can review and understand the analyses and verify the adequacy of the results without recourse to the originator.

The inlet process conditions, (normal and maximum) in the calculation were consistent with the referenced data sheet, 24590-LAW-MKD-LVP-00011, Rev. 2. However, the inlet process conditions in Revision 3 of this data sheet, dated September 26, 2012, were changed to be more challenging than in the basis for the calculation.

Rev. 3 of the data sheet referred to vendor calculation (b)(4) as an input, but the vendor calculation did not use the updated inlet concentrations from the data sheet. Instead, this calculation referred to an older process mass balance, 24590-LAW-M4C-LOP-00001, Rev. 2A. Revision 3 of the data sheet refers to Rev. 3 of 24590-LAW-M4C-LOP-00001.

Also, contrary to the requirements, the vendor spreadsheets were not documented in a manner that an individual who is technically competent in the subject can review and understand the analysis and verify the adequacy of the results without recourse to the originator. No text or method was provided with the spreadsheet. In addition, this spreadsheet did not take into account the effect of caustic concentration. The minimum required PH for the scrubber fluid was 9, yet no CO₂ was removed, according to the spreadsheet. The email attachment to the calculation provided removal efficiencies that were based on PH ranges that did not accommodate the entire range of application of the Scrubber.



Supplier Corrective Action Report

CCN 290944
Attachment 1
(b)(6) 9/6/16

Number: 24590-WTP-SCAR-QA-14-010

Rev: 0

Date: August 29, 2016

Title: (b)(4) Inaccurate Calculations for Caustic Scrubbers

Does this discrepancy have a potential impact on material previously shipped to the WTP Project?

Yes ☒ - Addressed in PIER and/or NCR Number: PIER-MGT-13-0587-B

No ☐ - No Impact (Justification required):

RESTRICTIONS

Work Restriction: Is a stop work restriction required to prevent the condition from reoccurring in the production line? Yes ☐ No ☒

Stop Shipment Restriction: Is a stop shipment restriction required to prevent the condition from affecting undelivered items or services? Yes ☐ No ☒

New Restriction(s) to be added to the BNI WTP Evaluated Suppliers List (ESL):

Not applicable

Reported by: (b)(6)

Title: Senior QA Engineer

Date: May 1, 2014

SUPPLIER RESPONSE (Guidance for Supplier)

In order to resolve the identified deficiency, please respond to BNI WTP with your proposed corrective actions and the planned completion date of your corrective actions by **September 4, 2014**. Your response must address the following:

Required Actions
1. Cause Analysis
2. Corrective Actions (Preventive)
3. Submittal of Internal Corrective Action Report to BNI WTP

Responses should be sent to one of the following addresses:

wtpsqu@bechtel.com

or

Attn: Supplier Qualification Admin.
MS13-A
2435 Stevens Center Place
Richland, WA 99354



Supplier Corrective Action Report

CCN 290944
Attachment 1
(b)(6) 9/6/16

Number: 24590-WTP-SCAR-QA-14-010

Rev: 0

Date: August 29, 2016

Title: (b)(4)

Inaccurate Calculations for Caustic Scrubbers

CORRECTIVE ACTION VERIFICATION (For BNI WTP use only)

Supplier's corrective action plan received. (CCN 269206)

Supplier corrective action plan is incomplete. The plan does not address how the supplier will document the analysis so a technically competent individual in the subject can review and understand the analysis and verify the adequacy of the results without recourse to the originator. Supplier is directed to respond by September 4, 2014.

Supplier's corrective action plan is acceptable. (CCN)

CCN 269200, Email from (b)(4),(b)(6) to (b)(6) BNI, "Extension for SCAR 14-010," dated July 8, 2014. Requested extension to September 1, 2014. Accepted.

CCN 269206, Email from (b)(4),(b)(6) to WTP Supplier Qualification, BNI, "24590-WTP-SCAR-QA-14-010 Response," dated August 4, 2014.

CCN 270021, Memo from (b)(6) BNI, to (b)(6) BNI Procurement, "Evaluation of (b)(4) (b)(4) Response to Supplier Corrective Action Report - #24590-WTP-SCAR-QA-14-010," dated August 4, 2014. Proposed corrective actions are inadequate to close this SCAR, thus the SCAR will remain open pending additional information to be provided by (b)(4) by September 4, 2014.

CCN 268311, Letter from (b)(6) BNI, to (b)(4),(b)(6) Bechtel National, Inc., Hanford Tank Waste Treatment and Immobilization Plant - Revision to Supplier Corrective Action Report - #24590-WTP-SCAR-QA-14-010 to (b)(4) for Purchase Order No. (b)(4) (b)(4) dated October 21, 2014. SCAR revised to better define the deficiencies in response to the return of calculation (b)(4) (b)(4) to supplier by WTP Engineering as a Code Status 2 submittal.

CCN 273157, Email from (b)(4),(b)(6) to WTP Supplier Qualification, BNI, "FW: Scanned image from MX-M850," dated November 19, 2014. (Supplier Corrective Action Report #24590-WTP-SCAR-QA-14-010.)

CCN 290918, Email from (b)(4),(b)(6) to WTP Supplier Qualification, BNI, (b)(4) Response to SCAR 14-010," dated August 25, 2016. Response accepted by (b)(6)

Supplier's corrective actions completed. (CCN 290918)

Response accepted by (b)(6)

Supplier's completed corrective actions verified complete and closed. (CCN 290944)

(b)(6) on August 29, 2016

Facility follow-up? Required: ☐ Not Required: ☒

Follow-up Date: not applicable.



Supplier Corrective Action Report

CCN 296977
Attachment
(b)(6) 9/6/16

Number: 24590-WTP-SCAR-QA-14-010

Rev: 0

Date: August 29, 2016

Title: (b)(4) Inaccurate Calculations for Caustic Scrubbers

CORRECTIVE ACTION VERIFICATION (For BNI WTP use only)

Attachment(s): not applicable

Verified by	(b)(6)	SQn Supervisor	9/1/16
		Title	Date
Closed by:	(b)(6)	Quality Assessment Manager	9/2/16
		Title	Date



111 9 10000 111 10 000 11 000 11 000
R11729398

CCN-281924

Attachment 1

(b)(6)

8/19/15

Supplier Corrective Action Report

Number: 24590-WTP-SCAR-QA-14-008

Rev: 0

Date: August 12, 2015

Title: (b)(4) CGD Sample Size

ISSUED BY
RPP-WTP POC

To:

(b)(4), (b)(6)

(b)(4)

From:

Supplier Qualification Manager

Bechtel National, Inc.

2435 Stevens Center Place

Richland, WA 99354

REQUIREMENTS/ REFERENCED DOCUMENTS

QA Program/Procedure Requirement: (b)(4) *Stainless Steel Piping Bulks Miscellaneous*, Revision 12, dated August 26, 2013, Section 2, *Technical Specifications*, Subsection 2.4.13.4 "Sample Size for a Lot with Components from Multiple Manufacturers." "When testing product chemical composition, dimensions or seam quality from a single manufacturer with single heat numbers in the lot, a 'Reduced' sampling plan approach following EPRI TR-017218-R1 Table 2-1 shall be used to determine sample quantities. Lot acceptance shall be based on zero defective items with respect to the defined acceptance criteria. Samples shall be randomly selected."

NQA-1 Requirement: Requirement 8, *Identification and Control of Items*

Supplier CAR Number: 11-14

WTP Source Document Number: 24590-WTP-SUV-QA-14-004

DESCRIPTION OF DEFICIENCY

Implementation of this section was required when verifying critical characteristics during inspection and testing. The process was assessed during the surveillance and found deficient in the case of a lot of 10 stainless steel flanges. The supplier tested material chemistry with only one (1) specimen (i.e., coupon of the same material) per single heat lot which was not in compliance with the sampling criteria requirement which states "When testing product chemical composition, dimensions or seam quality from a single manufacturer with single heat numbers in the lot, a 'Reduced' sampling plan approach following EPRI TR-017218-R1 Table 2-1 shall be used to determine sample quantities. Lot acceptance shall be based on zero defective items with respect to the defined acceptance criteria. Samples shall be randomly selected." There should have been two (2) random samples.

Does this discrepancy have a potential impact on material previously shipped to the WTP Project?

Yes ☐ - Addressed in PIER and/or NCR Number:

No ☒ - No Impact (Justification required): Did not affect hardware received by WTP.

RESTRICTIONS



Supplier Corrective Action Report

CCN 281924

Attachment 1

(b)(6) 8/19/15

Number: 24590-WTP-SCAR-QA-14-008

Rev: 0

Date: August 12, 2015

Title: (b)(4) CGD Sample Size

Work Restriction: Is a stop work restriction required to prevent the condition from reoccurring in the production line? Yes ☐ No ☒

Stop Shipment Restriction: Is a stop shipment restriction required to prevent the condition from affecting undelivered items or services? Yes ☐ No ☒

New Restriction(s) to be added to the BNI WTP Evaluated Suppliers List (ESL):

Reported by: (b)(6)

Title: Sr. Quality Engineer

Date: April 3, 2014

SUPPLIER RESPONSE (Guidance for Supplier)

In order to resolve the identified deficiency, please respond to BNI WTP with your proposed corrective actions and the planned completion date of your corrective actions by **May 15, 2014**. Your response must address the following:

Required Actions
1. Cause Analysis
2. Corrective Actions (Preventive)
3. Submittal of Internal Corrective Action Report to BNI WTP

Responses should be sent to one of the following addresses:

wtpsqu@bechtel.com

OR

Attn: Supplier Qualification Admin.
MS13-A
2435 Stevens Center Place
Richland, WA 99354

CORRECTIVE ACTION VERIFICATION (For BNI WTP use only)

Supplier's corrective action plan received.

- 1) CCN 271151, Email from WTP Supplier Qualification, BNI, to (b)(6) and others, BNI, (b)(4) Response to SCAR-QA-14-008," dated September 9, 2014.



Supplier Corrective Action Report

CCN 281924

Attachment 1

(b)(6)

8/19/15

Number: 24590-WTP-SCAR-QA-14-008

Rev: 0

Date: August 12, 2015

Title: (b)(4)

CGD Sample Size

CORRECTIVE ACTION VERIFICATION (For BNI WTP use only)

- 2) CCN 273195, Memo from (b)(6) BNI to (b)(6) BNI, "Evaluation of the (b)(4) (b)(4) Response to Supplier Corrective Action Reports - #24590-WTP-SCAR-QA-14-008 and 24590-WTP-SCAR-QA-14-009," dated November 18, 2014. Response was insufficient to close the SCARs.
- 3) CCN 273166, Email from WTP Supplier Qualification, BNI, to (b)(6) and others, BNI, (b)(4) - Response to 24590-WTP-SUV-QA-14-004", dated December 23, 2014.
- 4) CCN 275248, Memo from (b)(6) BNI to (b)(6) BNI, "Evaluation of the (b)(4) (b)(4) Follow-Up Response to Supplier Corrective Action Reports - #24590-WTP-SCAR-QA-14-008 and 24590-WTP-SCAR-QA-14-009," dated December 23, 2014. Response was insufficient to close the SCARs.

Supplier's corrective action plan is acceptable. (CCN 277174)

Status of the SCAR corrective actions verified during the (b)(6) Triennial Audit (24590-WTP-AR-QA-15-010) (b)(4) by (b)(6) (ATL) and (b)(6) (PE SME). During this Audit the Audit Team (PE) SME reviewed the documented sampling approach and testing process used by the Supplier based on their procedure QCP-20 Receiving Inspection, Revision 3 and QCP-6 Material Cutting, Revision 4. The review was a comparative analysis with EPRI TR-017218-R1. The Audit Team SME determined the Supplier's sampling process was more restrictive than the EPRI process. The EPRI process suggests a 1 per 5 sample (20%) and the Supplier's process requires a 2 per 8 sample (25%). The Audit Team PE SME determined the Supplier's process was more restrictive than the EPRI process thus achieving the criteria suggested in EPRI TR-017218-R1 Table 2-1, Reduced Plan.

Supplier's corrective actions completed. (CCN 279698)

Email from (b)(4),(b)(6) to WTP Supplier Qualification, SCAR #2450-WTP-SCAR-QA-14-008 Response, dated July 24, 2015.

Supplier's completed corrective actions verified complete and closed. (CCN 280880)

Email from (b)(6) BNI WTP PE to (b)(6) BNI-WTP SQn, dated August 11, 2015, as follows:

Per (b)(4) response to the SCAR (b)(4) utilized lot sampling plan per their procedure QCP #20 Rev 3, the lot/sample size are, e.g.:

LOT SIZE	SAMPLE SIZE
2 - 8	2
9 - 15	3
16 - 25	5



Supplier Corrective Action Report

CCN 281924

Attachment 1

(b)(6)

8/19/15

Number: 24590-WTP-SCAR-QA-14-008

Rev: 0

Date: August 12, 2015

Title: (b)(4) CGD Sample Size

CORRECTIVE ACTION VERIFICATION (For BNI WTP use only)

Per BNI-WTP requirement, sampling of product shall follow EPRI TR-017218 Table 2-1 "Reduced plan". In which, the sample size corresponding to the lot size are, e.g.:

LOT SIZE	SAMPLE SIZE
1 - 5	1
6 - 13	2
14 - 24	3

(b)(4) Apparently, the sample size that (b)(4) tested exceeded the BNI-WTP requirement. And, in addition to testing the finished items, (b)(4) also perform test on a test bar from the same heat of raw material as the same lot of finished items. As such, (b)(4) is verifying at both the raw material and finished item level, and is complying with the BNI-WTP requirement.

(b)(4) has provided the following as objective evidence of implementation of the procedure:

- (b)(4) Certificate of Conformance/Compliance dated 12/22/2014, for 10 EA 1/2" S/40s 150# RF SW Flange A-182-09a F304/304L Heat: H-607. Mfg: (b)(4)
- (b)(4) Test Report (chemicals and physicals) dated 6/5/2012, for 10 PCS 1/2" 150# RF SW STD B16.5, Heat No.: H-607, Material: A182-09a/SA182 F304/304L.
- (b)(4) Q.C. Inspection Plan/Report dated 7/10/2012, for 1 PC A182 F304/304L Test Bar from Heat No.: H-607, Mfg: (b)(4)
- (b)(4) Material Cutting Ticket dated 11/12/2014, for chemistry testing of 4 samples out of 10 EA 1/2" S/40s 150# RF SW Flange A/SA182-09a F304/304L, Heat No.: H-607. Mfg: (b)(4)
- (b)(4) Certified Material Test Report test date 11/12/2014, for chemistry testing of 4 PCS of 1/2" 150# RF SW Flange S/40s, (b)(4) No.: H-607, for compliance of A/SA182 Grade F304/304L

"Based on the above, (b)(4) response was deemed satisfactory for closure of the SCAR."

Facility follow-up? Required: ☐ Not Required: ☒

Follow-up Date: Date of recommended follow-up

Attachment(s):

Verified by: (b)(6)

Sr. QA Engineer/ATL
Title

08/22/15
Date



Supplier Corrective Action Report

~~CON-281924~~

Attachment 1

(b)(6)

8/19/15

Number: 24590-WTP-SCAR-QA-14-008

Rev: 0

Date: August 12, 2015

Title: (b)(4) CGD Sample Size

Closed by:

(b)(6)

Supplier Qualification Manager

Title

8/19/15

Date



ISSUED BY
RPP-WTP PDC

ISSUED BY
R11727840

Supplier Corrective Action Report

CCN-280857

Attachment 1

(b)(6)

7/16/15

Number: 24590-WTP-SCAR-QA-14-009

Rev: 0

Date: July 15, 2015

Title: (b)(4)

Material Identification Procedural Nonconformance

To:

(b)(4), (b)(6)

(b)(4)

From:

Supplier Qualification Manager

Bechtel National, Inc.

2435 Stevens Center Place

Richland, WA 99354

REQUIREMENTS/ REFERENCED DOCUMENTS

QA Program/Procedure Requirement: (b)(4) Quality System Manual, Revision 8, dated December 15, 201, Section V, "Material Receiving/Inspection/Shipping," Section 5.1. Non-Inventory Code and Safety Related Material

Non-inventory Code and safety related material shall be received per QCP #20. Warehouse personnel shall fill out a receiving report listing material received and shall affix an "Inbound Hold" tag (exhibit g), listing the vendor and the (b)(4) P.O. number. All documentation received from the vendor with shipment is forwarded to the QA department.

NQA-1 Requirement: Requirement 8, *Identification and Control of Items*

Supplier CAR Number: CAR 12-14

WTP Source Document Number: 24590-WTP-SUV-QA-14-004

DESCRIPTION OF DEFICIENCY

A group of BNI WTP stainless steel flanges was observed in the material receipt area with the receipt tags lying on top or under the flanges. The flanges were from two (2) heats; four (4) from one heat and six (6) from the other. The material was comingled with other projects' materials relying on the tag and heat numbers to maintain traceability. Because the tag was not affixed to the material and parts were comingled there was a potential of mixing material with other projects. The tags were not physically attached to the pieces, nor were the pieces in one or more containers to prevent inadvertent dispersal or mixing of the items. Because the QSM, Section V, paragraph 5.0 and subparagraphs stated that the tag would be affixed to the item a deficiency was identified as a nonconformance to procedural control of items.

Does this discrepancy have a potential impact on material previously shipped to the WTP Project?

Yes ☐ - Addressed in PIER and/or NCR Number:

No ☒ - No Impact (Justification required): Did not affect hardware received by WTP.



Supplier Corrective Action Report

CCN 264009

Attachment 3

(b)(6)

7/16/15

Number: 2459Q-WTP-SCAR-QA-14-009

Rev: 0

Date: July 15, 2015

Title: (b)(4)

Material Identification Procedural Nonconformance

RESTRICTIONS

Work Restriction: Is a stop work restriction required to prevent the condition from reoccurring in the production line? Yes ☐ No ☒

Stop Shipment Restriction: Is a stop shipment restriction required to prevent the condition from affecting undelivered items or services? Yes ☐ No ☒

New Restriction(s) to be added to the BNI WTP Evaluated Suppliers List (ESL):

Reported by:

(b)(6)

Title: Sr. Quality Engineer

Date: April 3, 2014

SUPPLIER RESPONSE (Guidance for Supplier)

In order to resolve the identified deficiency, please respond to BNI WTP with your proposed corrective actions and the planned completion date of your corrective actions by **May 15, 2014**. Your response must address the following:

Required Actions

1. Cause Analysis
2. Corrective Actions (Preventive)
3. Submittal of Internal Corrective Action Report to BNI WTP

Responses should be sent to one of the following addresses:

wtpsqu@bechtel.com

or

Attn: Supplier Qualification Admin.
MS13-A
2435 Stevens Center Place
Richland, WA 99354

CORRECTIVE ACTION VERIFICATION (For BNI WTP use only)

Supplier's corrective action plan received. (CCN 271152)

Comments (Note Verifier name and date)



Supplier Corrective Action Report

CCN 264009

Attachment 7

(b)(6)

7/16/15

Number: 24590-WTP-SCAR-QA-14-009

Rev: 0

ISSUED BY
RPP-WTP PDC
4/28/12

Date: July 15, 2015 (b)(6)

Title: (b)(4) Material Identification Procedural Nonconformance

CORRECTIVE ACTION VERIFICATION (For BNI WTP use only)

CCN 273195, Memo from (b)(6) BNI to (b)(6) BNI, Subject: "Memo to Procurement - Evaluation of the (b)(4) Response to Supplier Corrective Action Reports - #24590-WTP-SCAR-QA-14-008 and 24590-WTP-SCAR-QA-14-009," dated November 18, 2014. Response was insufficient to close the SCARs.

CCN 273166, Email from (b)(4).(b)(6) (b)(4) WTP Supplier Qualification, BNI WTP, Subject: "FW: Surveillance 24590-WTP-SUV-QA-14-004 Follow Up," dated December 18, 2014.

CCN 275248 Memo from (b)(6) BNI to (b)(6) BNI, Subject: "Memo to Procurement - Evaluation of the (b)(4) Follow-Up Response to Supplier Corrective Action Reports - #24590-WTP-SCAR-QA-14-008 and 24590-WTP-SCAR-QA-14-009," dated December 23, 2014. Response was insufficient to close the SCARs.

CCN 279474 Email from (b)(4).(b)(6) (b)(4) to WTP Supplier Qualification, BNI WTP, Subject: (b)(4) - Response to SCAR-QA-14-009 - Process as Email," dated July 14, 2015. Response evaluated by (b)(6) Sr. QA Engineer, ATL. Supplier provided cause analysis, corrective/preventive action, copy of Supplier CAR 14-12, and objective evidence of the written instructions to QC and warehouse personnel to ensure that the items received by (b)(4) were adequately tagged upon receipt.

CCN 280857, Memo from (b)(6) BNI, to (b)(6) BNI, Subject: Response Acceptance and Closure of Supplier Corrective Action Report - #24590-WTP-SCAR-QA-14-009, Revision 0, for (b)(4) (b)(4) dated July 15, 2015. Response was evaluated by (b)(6) Sr. QA Engineer/ATL. Response was sufficient to close the SCAR.

Supplier's corrective action plan is acceptable. (CCN 279474)

Email from (b)(4).(b)(6) (b)(4) to WTP Supplier Qualification, BNI WTP, Subject: (b)(4) Response to SCAR-QA-14-009 - Process as Email," dated July 14, 2015. Response evaluated by (b)(6) Sr. QA Engineer, ATL. Supplier provided cause analysis, corrective/preventive action, copy of Supplier CAR 14-12, and objective evidence of the written instructions to QC and warehouse personnel to ensure that the items received by (b)(4) were adequately tagged upon receipt.

Supplier's corrective actions completed. (CCN 279474)

Email from (b)(4).(b)(6) (b)(4) to WTP Supplier Qualification, BNI WTP, Subject: (b)(4) Response to SCAR-QA-14-009 - Process as Email," dated July 14, 2015. Response evaluated by (b)(6) Sr. QA Engineer, ATL. Supplier provided cause analysis, corrective/preventive action, copy of Supplier CAR 14-12, and objective evidence of the written instructions to QC and warehouse personnel to ensure that the items received by (b)(4) were adequately tagged upon receipt.

Supplier's completed corrective actions verified complete and closed. (CCN 277174)



Supplier Corrective Action Report

~~CCN 24590~~
Attachment 3
(b)(6) 7/16/15

Number: 24590-WTP-SCAR-QA-14-009

Rev: 0

Date: July 15, 2015

Title: (b)(4) Material Identification Procedural Nonconformance

CORRECTIVE ACTION VERIFICATION (For BNI WTP use only)

Status of the SCAR corrective actions verified during the (b)(6) Triennial Audit (24590-WTP-AR-QA-15-010) (b)(4) by (b)(6) (ATL). During this Audit the Audit Team observed that the material inbound hold tags were physically attached (affixed) using red duct tape to inbound items to prevent inadvertent dispersal or mixing of the items. The QA Manager indicated this was a process enhancement and corrective action in response to BNI corrective action request 24590-WTP-SCAR-QA-14-009.

CCN 280857, Memo from (b)(6) BNI, to (b)(6) BNI, Subject: Response Acceptance and Closure of Supplier Corrective Action Report - #24590-WTP-SCAR-QA-14-009, Revision 0, for (b)(4) (b)(4) dated July 15, 2015. Response was evaluated by (b)(6) Sr. QA Engineer/ATL. Response was sufficient to close the SCAR.

Facility follow-up? Required: ☐ Not Required: ☒

Follow-up Date: N/A

Attachment(s): N/A

Verified by:

(b)(6)

Sr. QA Engineer/ATL

Title

07/15/2015
Date

Closed by:

(b)(6)

Supplier Qualification Manager

Title

7/15/15
Date



Supplier Corrective Action Report

Document's responsible to Item 6

R11787339

GCN: 290237

Attachment 10

(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-055

Rev: 0

(b)(4) Title: (b)(4) PO number [redacted] is missing.

Requirements/Referenced Documents

ISSUED BY

Requirement(s):

RPP-WTP PDC

1. Quality Procedure 08 Identification and Control of Items sections 4.1 and 4.1.1 states "Materials purchased for use in NDE or inspection services shall be controlled from receipt inspection through final use, and Material specified by the Client/Buyer shall have a posted storage area or be identified by signage or tagging identifying the contract or purchase order number."
2. (b)(4) RPP/WTP Quality Program Manual Section 17 Quality Assurance Records states "The records will be legible, identified/retrievable by use of the Records Index and maintained in secure, controlled locked storage in accordance with the time period specified on the Index."

Trend Code: 8, 17

WTP Source Document Number: 24590-WTP-AR-QA-15-018

Description of Adverse Condition

Contrary to requirement 1: The auditor was determining traceability of material stored at (b)(4) by obtaining the Purchase Order (PO) Number marked on the material and then reviewing the PO to ensure traceability was maintained. PO [redacted] was used for traceability for several items. PO [redacted] was unable to be located. Traceability of the material purchased under this PO is not able to be determined.

Contrary to the requirement 2: On 9/14/15 the auditor asked the Business Manager for PO [redacted] and she was unable to locate it. On 9/17/15 PO [redacted] was still missing and this SCAR was initiated to document the missing PO.

Identified by: (b)(6)

Title: Sr. QA Specialist

Date: 9/17/15

Validated by:

Title: Sr. QA Specialist/ATL

Date: 9/17/15

Adverse Condition Evaluation

Classification: ☒ Non-significant? ☐ Significant

Impact Evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☐ Yes - Addressed in WTP-CR / NCR / CDR:

☒ No - No impact (Justification required): Material was purchased Transcanada.

Is a stop work required prevent the condition from recurring in the supplier's production line?

☐ Yes ☒ No

Is a stop shipment required to prevent the condition from affecting undelivered items / services?

☐ Yes ☒ No

Restriction(s):

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsq@bechtel.com by November 30, 2015. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:



Supplier Corrective Action Report

CCN: 290257

Attachment 10-

(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-055

Rev: 0

(b)(4)

Title: (b)(4) PO number [redacted] is missing.

- ☒ Cause analysis
- ☒ Extent of condition
- ☒ Action to correct the cause and preclude recurrence

ISSUED BY
RPP-WTP PDC

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsgu@bechtel.com.

Corrective Action Verification

(b)(4)

Supplier corrective action plan received Response received via email from (b)(4), (b)(6) [redacted] to WTP Supplier Qualification, [redacted] Audit Response," dated January 14, 2016 (See CCN 284910)

(b)(4)

Response was determined to be inadequate to close the SCAR. The response [redacted] CAR-15-011) did not address the deficiencies identified in the SCAR. (See CCN [redacted])

(b)(4)

Supplier corrective action plan verified acceptable (See CCN [redacted])

Supplier corrective actions completed (See CCN [redacted])

Supplier corrective actions verified complete and SCAR closed (See CCN 279724)

Reviewed completed CAR 15-011, closure approval dated 5/30/16, including cause, extent of condition, remedial action, actions to prevent recurrence. Reviewed objective evidence for closure including: Root cause analysis checklist, dated 5/26/16; Training record verifying training of requirements associated with the application of quality clause use when issuing POs and Maintenance in receipt inspection files, dated 1/20/16; classroom training related to procedures QP 04, Procurement Document Control, Revision 0, QP 08, Identification & Traceability, Revision 0, and QP 17.0, Quality Assurance Records. Training for the procedure documented dated 5/26/16.

The above actions address the adverse conditions identified in this SCAR and were verified to be corrected and documented in surveillance 24590-WTP-SUV-QA-16-019.

Supplier Corrective Action Report Closure

(b)(6)

Concurrence by:

(b)(6)

SQn Supervisor

Title

Verified by:

SQn Supervisor

Title

Approved by:

Quality Assessment
Manager

Title

8-4-16

Date

8-4-16

Date

8/4/16

Date

Revision History:

Revision	Reason for Revision
0	Initial issue.



R11787327

Supplier Corrective Action Report

CCN-290932

Attachment 1

(b)(6) 8/4/16

Date: December 10, 2015

Document No.: 24590-WTP-SCAR-QA-15-059

Rev: 0

Title: (b)(4) Material Test Standards (Chemistry) Issues

Requirements/Referenced Documents

ISSUED BY
RPP-WTP PDC

Requirement(s):

(b)(4) Quality Assurance Manual, revision 5, dated 10/10/2013, Section 12.1 states in part, "It shall be the responsibility of QA Management to have all measuring and test equipment that is used for the purpose of QA/QC final product acceptance is calibrated...." Section 12.2 states in part, "M&TE shall be checked and calibrated against standards traceable to National Institute of Standards and Technology (NIST)..."

(b)(4) Quality Control Procedure QCP 4-2, Audit Procedure, revision 15, dated 11/21/2014 requires in general that suppliers be qualified through audit, survey, review of accreditation, etc.

Trend Codes: 12

WTP Source Document Number: 24590-WTP-AR-QA-15-028

Description of Adverse Condition

The Optical Emission Spectroscopy machine used to perform material analysis for final acceptance of material chemistry specifications is "checked" (standardized) using material standards (e.g. Brammer Standard #BS3951 for 304L, #BS84J for 316L stainless steel), purchased from commercial suppliers such as Brammer Standards and Analytical Reference Materials International (ARMI) without verification of the chemistry (i.e. documented traceability to NIST) of the standard through a qualified testing lab or documented qualification of the standards supplier.

Identified by: (b)(6) Title: Sr. QA Engineer Date: 12/10/2015

Validated by: (b)(6) Title: Sr. QA Engineer Date: 12/10/2015

Adverse Condition Evaluation

Classification: ☒ Non-significant? ☐ Significant

Impact Evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☐ Yes - Addressed in WTP-CR / NCR / CDR:

☒ No - No impact (Justification required): This will have to be evaluated upon receipt of the response and documentation confirming the standards used for chemistry testing of BNI materials meet the specification for the standard.

**The response to this SCAR shall include: identification of each chemistry standard used for BNI work and certification from a qualified material testing lab of the chemistry for each standard used.

Is a stop work required prevent the condition from recurring in the supplier's production line? ☐ Yes ☒ No

Is a stop shipment required to prevent the condition from affecting undelivered items / services? ☐ Yes ☒ No

Restriction(s):

N/A



Supplier Corrective Action Report

CCN: 200932

Attachment 1

(b)(6) 8/4/16

Date: December 10, 2015

Document No.: 24590-WTP-SCAR-QA-15-059

Rev: 0

Title: (b)(4)

Material Test Standards (Chemistry) Issues

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsqu@bechtel.com by July 14, 2016. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:

- ☒ Cause analysis
- ☒ Extent of condition
- ☒ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsqu@bechtel.com.

Corrective Action Verification

This SCAR is being administratively closed per 24590-WTP-GPP-RAQA-QA-2005, *Supplier Corrective Action*, Paragraph 6.10.

To the Audit Team it appeared that the Optical Emission Spectroscopy machine used to perform material analysis for final acceptance of material chemistry specifications was calibrated using standards (e.g. Brammer Standard #BS3951 for 304L, #BS84J for 316L stainless steel), purchased from commercial suppliers without confirming the chemistry.

Brammer Standards #BS3951 for 304L and #BS84J for 316L stainless steel were not used for calibration. They are used for Standardization—Following the manufacturer's recommendations and ASTM E415 Standard Test Method for Analysis of Carbon and Low-Alloy Steel by Spark Atomic Emission Spectrometry. Standardization is done on a daily basis to correct for instrument drift which meets ASTM E415, Part 12 Calibration, Standardization, and Verification criteria.

There is no discrepancy in the procurement and use Brammer Standards #BS3951 for 304L, #BS84J for 316L stainless steel as long as they are being used as Optical Emission Spectroscopy verification materials.

See CCN 289195

Supplier Corrective Action Report Closure

Concurrence by:	(b)(6)	Senior Quality Engineer	(b)(6)	7/25/2016
		Title		Date
Verified by:		Senior Quality Engineer		7/25/2016
		Title		Date
Approved by:		Quality Assessment Manager		8/4/16
		Title	Signature	Date

Revision History:

Revision	Reason for Revision
0	Initial issue.



Supplier Corrective Action Report

ECN: 298953-
Attachment 1
(b)(6) 9/2/16


Date: May 9, 2016

Document No.: 24590-WTP-SCAR-QA-15-061

Rev: 0

Title: (b)(4) Quality Assurance & Control Manual Fails to Meet Full Requirements of NQA-1-2000


Requirements/Referenced Documents

(b)(4) Requirement(s): 1.  Thermocouple/RTD/Thermowell (ITS)(JT1), Revision 7, dated September 12, 2013, Section 2. (Incorporates Q Datasheet of ANSI/ASME NQA-1 (2000) Quality Assurance Program Requirements, Revision 14, dated January 31, 2013 - full requirements, no Basic only.). Q datasheet category - Manufacturing (Design/Build), Including Manufacture or Design by Sub-tier Suppliers.

Trend Code: 2

WTP Source Document Number:

Description of Adverse Condition

Contrary to requirement 1 above, the (b)(4)  Quality Assurance & Control Manual, Revision 12, dated October 1, 2014, was found to be deficient in establishing the requirements contained in the NQA-1 2000 subsections as required by the Q datasheet category - Manufacturing (Design/Build), Including Manufacture or Design by Sub-tier Suppliers.

Requirements from the following subsections of NQA-1 2000 either have not been established or have not been sufficiently addressed in the QA manual or implementing procedures:

- Requirement 1, Sections 202 and 203. The Supplier's *Quality Assurance & Control Manual* (QACM 100-1), Revision 12, did not establish the requirements for delegation of any or all of the work the individual(s) or organization(s) responsible for establishing and executing a QA program and that they shall retain responsibility therefore. The program also did not address interface control where more than one organization is involved in the execution of activities. The responsibilities, interfaces, and authority of each organization were clearly not defined and documented. The external interfaces between organizations and the internal interfaces between organizational units, and changes thereto, were not documented.
- Requirement 3, Section 401. Neither the QACM nor the implementing procedures addressed use of computer programs to the extent required in paras. 401 a) and b) of this requirement, computer program acceptability shall be preverified or the results verified with the design analysis for each application. Preverified computer programs shall be controlled in accordance with the requirements of this standard:
 - a) The computer program shall be verified to show that it produces correct solutions for the encoded mathematical model within defined limits for each parameter employed.
 - b) The encoded mathematical model shall be shown to produce a valid solution to the physical problem associated with the particular application.
- Requirement 3, Section 402. Neither the QACM nor implementing procedures addressed d) Assumptions and indication of those assumptions that must be verified as the design proceeds; e) Identification of any computer calculation, including identification of the computer type, computer program name, and revision, inputs, outputs, evidence of or reference to computer program verification, and the bases (or reference thereto) supporting application of the computer program to the specific physical problem; or f) Review and approval.
- Requirement 3, Section 501.1 Neither the QACM nor implementing procedures addressed final design reviews as follows:
 - d) Were the design inputs correctly incorporated into the design?
 - e) Is the design output reasonable compared to design inputs?



Supplier Corrective Action Report

CCN-298953-
Attachment 1
(b)(6) 9/2/16

Date: May 9, 2016

Document No.: 24590-WTP-SCAR-QA-15-061

Rev: 0

Title: (b)(4) Quality Assurance & Control Manual Fails to Meet Full Requirements of NQA-1-2000

- f) Are the necessary design inputs for interfacing organizations specified in the design documents or in supporting procedures or instructions?
- g) Have suitable materials, parts, processes, and inspection and testing criteria been specified?
- Requirement 3, Section 800. Software design control was not defined in the QACM or implementing procedures.
 - Requirement 3, Section 801. The requirements for software design process were not established or implemented in the QACM or implementing procedures.
 - Requirement 3, Section 801.1. The process for the identification and documentation of the software design requirements and their selection and approval were not established or implemented in the QACM or implementing procedures. This included the identification of the operating system, function, interfaces, performance requirements, installation considerations, design inputs, and any design constraints of the computer program.
 - Requirement 3, Section 801.2. The requirements for software design were not established in the QACM or implementing procedures. This includes the requirements that the software design be documented and define the computational sequence necessary to meet the software requirements. The QACM and implementing procedures did not require that the documentation include, as applicable, numerical methods, mathematical models, physical models, control flow, control logic, data flow, process flow, data structures, process structures, and the applicable relationships between data structures and process structures. The option to combine this documentation with the documentation of the software design requirements, or the computer program listings resulting from implementation of the software design was not addressed.
 - Requirement 3, Section 801.3. The requirements that the implementation of the software design translated into computer program(s) using the programming organization's or design organization's programming standards and conventions were not established in the QACM or implementing procedures.
 - Requirement 3, Section 801.4. The requirements that software design verification be performed by competent individual(s) or group(s) other than those who developed and documented the original design, but who may be from the same organization were not established in the QACM or implementing procedures. The requirements for the results of verification to be documented with the identification of the verifier indicated were not established. The software verification methods did not include any one or a combination of design reviews, alternate calculations, and tests performed during computer program development. The extent of verification and the methods chosen are a function of:
 - a) The complexity of the software;
 - b) The degree of standardization;
 - c) The similarity with previously proved software; and
 - d) The importance to safety;were not addressed in the QACM or implementing procedures.
 - Requirement 3, Section 801.5. Neither the QACM nor implementing procedures established the requirements or implementation steps to ensure that computer program testing be performed in accordance with NQA-1, Requirement 11.
 - Requirement 3, Section 802.2. The QACM and implementing procedures did not establish the requirements for configuration change control. That is the QACM and procedures did not require that changes to software be formally documented and that the documentation include:
 - a) A description of the change;
 - b) The rationale for the change; and
 - c) The identification of affected software baselines.



Supplier Corrective Action Report

CCN: 290953-
Attachment 1
(b)(6) 7/2/16

Date: May 9, 2016

Document No.: 24590-WTP-SCAR-QA-15-061

Rev: 0

Title: (b)(4) Quality Assurance & Control Manual Falls to Meet Full Requirements of NQA-1-2000

- Requirement 3, Section 802.2. The QACM and implementing procedures did not require that the change be formally evaluated and approved by the organization responsible for the original design, unless an alternate organization has been given the authority to approve the changes. The QACM and implementing procedures did not restrict changes to authorized changes made to software baselines. The QACM and procedures did not describe appropriate verification activities to be performed for the change. The QACM and procedures did not require the changes be appropriately reflected in documentation and traceability of the change to the software design requirement be maintained, or appropriate acceptance testing be performed for the change.
- Requirement 4, Section 200. The QACM, Revision 12, Section 6.5 does not establish the requirements of the content of the procurement documents. It lists only the section title. There are no procedural implementation steps in QSDR 100-4.1, Revision 10, Section 5.2.1 which references the QACM, Section 6.5, which lists only the section title as a bullet in a list.
- Requirement 4, Section 201. The QACM, Revision 12, Section 6.5 does not establish the requirements of the content of the scope of work. It lists only the section title. There are no procedural implementation steps in QSDR 100-4.1, Revision 10, Section 5.2.1 which only references the QACM, Section 6.5, which lists only the section title as a bullet in a list.
- Requirement 4, Section 202. The QACM, Revision 12, Section 6.5 does not establish the requirements of the content of the technical requirements. It lists only the section title. There are no procedural implementation steps in QSDR 100-4.1, Revision 10, Section 5.2.1 which only references the QACM, Section 6.5, which lists only the section title as a bullet in a list.
- Requirement 4, Section 203. The QACM, Revision 12, Section 6.5 does not establish the requirements of the content of the quality assurance program requirements. It lists only the section title. There are no procedural implementation steps in QSDR 100-4.1, Revision 10, Section 5.2.1 which only references the QACM, Section 6.5, which lists only the section title as a bullet in a list.
- Requirement 4, Section 204. The QACM, Revision 12, Section 6.5 does not establish the requirements of the content of the right of access. It lists only the section title. There are no procedural implementation steps in QSDR 100-4.1, Revision 10, Section 5.2.1 which only references the QACM, Section 6.5, which lists only the section title as a bullet in a list.
- Requirement 4, Section 205. The QACM, Revision 12, Section 6.5 does not establish the requirements of the content of the documentation requirements. It lists only the section title. There are no procedural implementation steps in QSDR 100-4.1, Revision 10, Section 5.2.1 which only references the QACM, Section 6.5, which lists only the section title as a bullet in a list.
- Requirement 4, Section 207. The QACM, Revision 12, Section 6.5 does not establish the requirements the content of the spare and replacement parts. It lists only the section title. There are no procedural implementation steps in QSDR 100-4.1, Revision 10, Section 5.2.1 which only references the QACM, Section 6.5, which lists only the section title as a bullet in a list.
- Requirement 7, Section 503. Neither the QACM nor the implementing procedures established the requirements contain implementing steps for when a certificate of conformance is used to ensure the following minimum criteria met:
 - a) The certificate shall identify the purchased material or equipment, such as by the purchase order number.
 - b) The certificate shall identify the specific procurement requirements met by the purchased material or equipment, such as codes, standards, and other specification. This may be accomplished by including a list of the specific requirements or by providing, on-site, a copy of the purchase order and the procurement specifications or drawings, together with a suitable certificate. The procurement requirements identified shall include any approved changes, waivers, or deviations applicable to the subject material or equipment.



Supplier Corrective Action Report

CCN: 296953
Attachment 1
(b)(6) 9/2/16

Date: May 9, 2016

Document No.: 24590-WTP-SCAR-QA-15-061

Rev: 0

Title: (b)(4) Quality Assurance & Control Manual Fails to Meet Full Requirements of NQA-1-2000

- c) The certificate shall identify any procurement requirements that have not been met, together with an explanation and the means for resolving the nonconformances.
- d) The certificate shall be signed or otherwise authenticated by a person who is responsible for this quality assurance function and whose function and position are described in the purchaser's or supplier's quality assurance program.
- e) The certification system, including the procedures to be followed in filling out a certificate and the administrative procedures for review and approval of the certificates, shall be described in the purchaser's or supplier's quality assurance program.
- f) Means shall be provided to verify the validity of supplier certificates and the effectiveness of the certification system, such as during the performance of audits of the supplier or independent inspection or test of the items. Such verification shall be conducted by the purchaser at intervals commensurate with the supplier's past quality performance.
- Requirement 7, Section 506. Neither the QACM nor the implementing procedures establish the requirements for when post-installation testing is used, post-installation test requirements and acceptance documentation are mutually established by the purchaser and supplier.
- Requirement 7, Section 600. Neither the QACM nor the implementing procedures establish the requirements within the control of supplier nonconformances for submittal of nonconformance notice to purchaser by supplier as directed by the purchaser. This includes supplier-recommended disposition (e.g., use-as-is or repair) and technical justification. Nonconformances to the procurement requirements or purchaser-approved documents, which consist of one or more of the following, were also not addressed as submittals to the purchaser for approval of the recommended disposition:
 - 1. Technical or material requirement is violated;
 - 2. Requirement in supplier documents, which has been approved by the purchaser, is violated;
 - 3. Nonconformance cannot be corrected by continuation of the original manufacturing process or be rework; and
 - 4. The item does not conform to the original requirement even though the item can be restored to a condition such that the capability of the item to function is unimpaired.
- Requirement 7, Section 704 b). Neither the QACM nor implementing procedures did establish the requirements or implementing procedures to ensure that prior to acceptance of the commercial grade item or service, the dedicating entity determines the following, as applicable:
 - 1. Damage was not sustained during shipment;
 - 2. The item or service has satisfied the specified acceptance criteria for the identified critical characteristics; and
 - 3. Specified documentation was received and is acceptable.
- Requirement 7, Section 704.3 a). Neither the QACM nor implementing procedures established the requirements or implementing procedures to ensure an acceptable supplier/item/service performance record includes the following:
 - 1. Identification of the supplier/item/service being evaluated;
 - 2. Identification of previously established critical characteristics specific to the supplier/item/service;
 - 3. Identification of industry data examined to evaluate the supplier/item/service;
 - 4. Identification of basis for determining that industry data substantiates acceptability of the supplier/item/service; and
 - 5. Documentation of the adequacy and acceptance of the supplier/item/service performance record.
- Requirement 7, Section 704.3 b). Neither the QACM nor implementing procedures establish the requirements or implementing procedures to ensure an acceptable supplier/item/service performance record shall not be employed unless:
 - 1. The established historical record is based on industry-wide performance data that is directly applicable to the critical characteristics and the intended facility application (i.e., a single source of information is adequate to demonstrate satisfactory performance).



Supplier Corrective Action Report

CCN: 290955
(b)(6) 9/2/16

Date: May 9, 2016

Document No.: 24590-WTP-SCAR-QA-15-061

Rev: 0

Title: (b)(4) Quality Assurance & Control Manual Fails to Meet Full Requirements of NQA-1-2000

2. The manufacturer/supplier's measures for the control of applicable design, process, and material change have been accepted by the dedicating entity.
- Requirement 7, Section 704.3 c). Neither the QACM nor implementing procedures established the requirements or implementing procedures to ensure continued application of an acceptable supplier/item/service performance record including a documented periodic update and review to assure the supplier/item/service maintains an acceptable performance record.
 - Requirement 7, Section 705. Neither the QACM nor implementing procedures establish the requirements or implementing procedures to ensure deficiencies identified in the supplier's processes and controls identified in the dedication process will be corrected by the supplier and verified by the dedicating entity, if the specified dedication process is to be used to verify an identified critical characteristic.
 - Requirement 7, Section 800. Neither the QACM nor implementing procedures establish the requirements for implementing steps for records associated with the performance of the following functions:
 - a) supplier evaluation and selection;
 - b) acceptance of items or services; and
 - c) supplier nonconformances to procurement document requirements, including their evaluation and disposition utilization and acceptance of commercial grade items.
 - Requirement 8, Section 303. Neither the QACM nor implementing procedures establish the requirements for implementing steps for ensuring that provisions are made for the control of item identification consistent with the planned duration and conditions of storage, such as:
 - a) Provisions for maintenance or replacement of markings and identification records due to damage during handling or aging; and
 - b) Protection of identifications on items subject to excessive deterioration due to environmental exposure.
 - Requirement 9, Section 100. Neither the QACM nor implementing procedures define special processes as defined by the standard. (b)(4) does not address welding or NDE as special processes.
 - Requirement 9, Section 202. Neither the QACM nor implementing procedures address the acceptance criteria for the special processes.
 - Requirement 10, Section 300. Neither the QACM nor implementing procedures address recording consent to waive specified hold points prior to continuation of work beyond the designated hold point.
 - Requirement 10, Section 602. Neither the QACM nor implementing procedures establish the requirements or establish the inspection requirements for completed items, that is inspection for completeness, markings, calibration, adjustments, protection from damage, or other characteristics as required to verify the quality and conformance of the item to specified requirements.
 - Requirement 10, Section 603. Neither the QACM nor implementing procedures establish the requirements or procedural steps for any modifications, repairs, or replacements of items performed subsequent to final inspection that will require reinspection or retest, as appropriate, to verify acceptability.
 - Requirement 10, Section 700. Neither the QACM nor the procedures establish the record requirements for inspection, which as a minimum must identify the following:
 - a) Item inspected;
 - b) Date of inspection;
 - c) Inspector;
 - d) Type of observation;
 - e) Results or acceptability; and



Supplier Corrective Action Report

CCN-200953
Attachment 1
(b)(6) 9/2/16

Date: May 9, 2016

Document No.: 24590-WTP-SCAR-QA-15-061

Rev: 0

(b)(4)

Title: (b)(6) Quality Assurance & Control Manual Fails to Meet Full Requirements of NQA-1-2000

f) Reference to information on action taken in connection with nonconformances.

- Requirement 11, Section 200 c). Neither the QACM nor implementing procedures establish the requirements to be imposed if temporary changes to the approved configuration of a facility are required for testing purposes, approval by the design authority is required prior to performing the test.
- Requirement 11, Section 300 b). Neither the QACM nor implementing procedures establish the requirements for alternate test procedures to include appropriate sections of related documents, such as ASTM methods, supplier manuals, equipment maintenance instructions, or approved drawings or travelers with acceptance criteria, can be used.
- Requirement 12, Section 303. Neither the QACM nor the implementing procedures address the requirement stating that calibration and control measures are not required for commercial equipment such as rulers, tape measures, levels, etc., if such equipment provides the required accuracy.
- Requirement 13, Section 400. Neither the QACM nor the implementing procedures address special handling tools and equipment that will be utilized and controlled where necessary to ensure safe and adequate handling. Nor are the requirements for inspection and period testing for special handling tools and equipment, or prior to use as necessary to ensure performance as required.
- Requirement 13, Section 500. Neither the QACM nor the procedures address the requirements for operators of special handling and lifting equipment to be experienced or trained in use of the equipment.
- Requirement 17, Section 800 d). Neither the QACM nor the implementing procedures address provisions for specially processed records (such as radiographs, photographs, negatives, microform, and magnetic and optical media) to prevent damage from excessive light, stacking, electromagnetic fields, temperature, and humidity.
- Requirement 18, Section 800. The QACM/QSDR does not include written replies and record of completion of corrective actions as records.
- NQA-1 2000, Subpart 2.7, Section 202. Neither the QACM nor implementing procedures addressed the requirement that identify the participants and their specific review responsibilities. The QACM and implementing procedures did not establish the requirements that documentation of review comments and their disposition be retained until they are incorporated into the updated software. Comments not incorporated and their disposition were not addressed as being required to be retained until the software is approved for use. The QACM and procedures did not address when review alone is not adequate to determine if requirements are met, that alternate calculations shall be used, or tests shall be developed and integrated into the appropriate activities of the software development cycle.
- NQA-1 2000, Subpart 2.7, Section 400. The requirements for software engineering method(s) were not established in the QACM or implementing procedures. That is, the requirement that the selected software engineering method ensure that software life cycle activities are planned and performed in a traceable and orderly manner were not established, nor were the requirements that the appropriate requirements of Part I, Requirement 3 be met.
- NQA-1 2000, Subpart 2.7, Section 401. Neither the QACM nor the implementing procedures addressed the software design requirements to address technical and software engineering (i.e., para. 101 of this Subpart) requirements. The QACM and implementing procedures did not establish that software design requirements be traceable throughout the software life cycle.
- NQA-1 2000, Subpart 2.7, Section 402. The QACM and implementing procedures did not establish the requirements or implementing steps to ensure that an integral part of software design is the design of a computer program that is part of an overall system. The QACM and implementing procedures did not address that software design consider the computer program's operating environment. The QACM and implementing procedures did not address measures to mitigate the consequences of problems as an integral part of the design, and potential problems including external and internal abnormal conditions and events that can affect the computer program.



Supplier Corrective Action Report

CCN: 290953
Attachment 1
(b)(6) 9/2/16

Date: May 9, 2016

Document No.: 24590-WTP-SCAR-QA-15-061

Rev: 0

Title: (b)(6) Quality Assurance & Control Manual Fails to Meet Full Requirements of NQA-1-2000

- NQA-1 2000, Subpart 2.7, Section 404, para 2. The QACM and implementing procedures did not address the requirement that acceptance testing be performed prior to approval of the computer program for use. Configuration items shall be under configuration change control prior to starting acceptance testing was not addressed nor were the requirements that acceptance testing be planned and performed for all software design requirements. Acceptance testing ranges from a single test of all software design requirements to a series of tests performed during computer program development was not addressed. Performance of a series of tests provides assurance of correct translation between activities and proper function of individual modules was not addressed, nor was the requirement that testing include a comprehensive acceptance test performed in the operating environment prior to use.
- NQA-1 2000, Subpart 2.7, Section 404 para 3. The QACM and implementing procedures did not establish the requirements for the test plans, test cases, and test results be documented, reviewed, and approved prior to use of the computer program in accordance with Part I, Requirement 11. The requirements that observations of unexpected or unintended results be documented and dispositioned prior to test result approval were not addressed or implemented.
- NQA-1 2000, Subpart 2.7, Section 406. The requirements that the appropriate software engineering elements, as described in para. 101 of this Subpart, identify how changes to the software are controlled were not addressed in the QACM or implementing procedures including changes in response to:
 - a) Enhancement requests from the user community;
 - b) Revisions to software based on software design requirements;
 - c) Changes to the operating environment; or reported software problems that must be corrected.
- NQA-1 2000, Subpart 2.7, Section 600. The requirements for support software including software tools and system software were not addressed in the QACM or implementing procedures including, as appropriate, the software engineering method, software acquisition method, or both to establish the need for software tools.
- NQA-1 2000, Subpart 2.7, Section 601. The requirements that software tools be evaluated, reviewed, tested, and accepted for use, and placed under configuration control as part of the software development cycle of a new or revised software product were not established in the QACM or described in the implementing procedures. The requirement that software tools that do not affect the performance of the software need not be placed under configuration control was also not established or addressed.
- NQA-1 2000, Subpart 2.7, Section 601, para 2. The requirement that in cases involving modifications of software products using the software tools, the configuration of the support software associated with that modification be managed was not addressed in the QACM or implementing procedures. The requirement that changes to the software tool be evaluated for impact on the software product to determine the level of reviews and retesting that will be required was also not established.
- NQA-1 2000, Subpart 2.7, Section 602. The requirements that system software which consists of the on-line computer programs used to provide basic or general functionality and facilitate the operation and maintenance of the application computer program were not established in the QACM or implementing procedures including: lower level software layers, assemblers, interpreters, diagnostics, and utilities. The requirement that system software be evaluated, reviewed, tested, and accepted for use as part of the software development cycle of a new or revised software product was not established, nor was the requirement that system software be placed under configuration change control. The requirements that changes to the system software be evaluated for impact on the software product to determine the level of reviews and retesting that will be required were not established in the QACM or implementation steps in the procedures.

Identified by:	(b)(6)	Title: Sr. QA Specialist	Date: May 5, 2016
Validated by:	(b)(6)	Title: Sr. QA Specialist	Date: May 5, 2016



Supplier Corrective Action Report

ECN-290953
Attachment 1
(b)(6) 9/2/16

Date: May 9, 2016

Document No.: 24590-WTP-SCAR-QA-15-061

Rev: 0

Title: (b)(4) Quality Assurance & Control Manual Fails to Meet Full Requirements of NQA-1-2000

Adverse Condition Evaluation

Classification: ☐ Non-significant? ☒ Significant

Impact Evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☐ Yes – Addressed in WTP-CR / NCR / CDR:

☒ No – No impact (Justification required): Supplier has not shipped materials or products to the WTP.

Is a stop work required prevent the condition from recurring in the supplier's production line?

☒ Yes ☐ No

Is a stop shipment required to prevent the condition from affecting undelivered items / services?

☒ Yes ☐ No

Restriction(s): The Supplier is restricted from shipping materials and products to BNI WTP until the QA Manual satisfactorily establishes the NQA-1 2000 requirements.

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsqu@bechtel.com by June 9, 2016. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:

☒ Cause analysis

☐ Extent of condition

☒ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsqu@bechtel.com.



Supplier Corrective Action Report

CCN: 290953-
Attachment 1
(b)(6) 9/2/16

Date: May 9, 2016

Document No.: 24590-WTP-SCAR-QA-15-061

Rev: 0

(b)(4) Title: (b)(6) Quality Assurance & Control Manual Fails to Meet Full Requirements of NQA-1-2000

Corrective Action Verification

Supplier corrective action plan received (See CCN 289187)

Supplier has provided the response to this subject SCAR, including Supplier CAR #1384 and associated documentation package as their proposed corrective action plan. The documentation package was determined to be incomplete or inadequate in the response involving software requirements that were identified in the initial Supplier QA Program review as documented in CCN 288676. Subsequent review of the issued purchase order, (b)(4) and associated instrument datasheets for Thermowells, RTDs, and Thermocouples, and discussion with BNI Engineering, determined that the instruments of the purchase order do not require embedded firmware nor software used for design verification activities. Based upon this information, SQn performed a second Supplier QA Program review, as documented in CCN 290953. This review identifies that requirements for NQA-1 2000 Sub-Part 2.7 is not applicable to this scope of work. Additionally, other areas that were determined to be unsatisfactory during the initial QA Program review were either determined to be satisfactory or satisfactory, on an overall basis, and should be evaluated during the audit process.

(b)(6) 8/23/16

Supplier corrective action plan verified acceptable (See CCN)

N/A

Supplier corrective actions completed (See CCN)

N/A

Supplier corrective actions verified complete and SCAR closed (See CCN 290953)

Based upon the above entry by (b)(6) dated 8/23/16, this SCAR is being closed. The basis for the closure is that, the Supplier QA program review performed as part of CCN 290953, indicates that NQA-1 2000 Sub-Part 2.7 is not applicable to the scope of work of the subject purchase order (b)(4). Therefore, two restrictions have been placed upon the BNI Evaluated Suppliers List (ESL) restricting the supplier as follows:

1. The Supplier is restricted from use of software for design analysis without alternate method of design verification, per 24590-WTP-3PS-G000-T0014, *Engineering Specification for Supplier Design Analysis*, on BNI purchase orders.
2. The Supplier is restricted from utilizing Non-Modifiable Configurable firmware, Programmable Logic Controllers, or software in BNI instruments.

Other areas that were determined to be unsatisfactory during the initial QA Program review (CCN 288676) were either determined to be satisfactory or satisfactory, on an overall basis, as documented in the subsequent QA Program review (CCN 290953). The satisfactory with exceptions will be evaluated during the audit process confirmed for 9/27/16.

In addition, the current stop work/stop shipment restrictions are removed with this closure.



Supplier Corrective Action Report

CCN: 298953
Attachment 1
(b)(6) 9/2/16

Date: May 9, 2016 Document No.: 24590-WTP-SCAR-QA-15-061 Rev: 0

Title: (b)(4) Quality Assurance & Control Manual Fails to Meet Full Requirements of NQA-1-2000

Supplier Corrective Action Report Closure

Concurrence by:	(b)(6)	SQn Supervisor	(b)(6)	8/29/16
		Title		Date
Verified by:		SQn Supervisor		8/29/16
		Title		Date
Approved by:		Quality Assessment Manager		8/29/16
		Title		Date

(b)(6)

Revision History:

Revision	Reason for Revision
0	Initial issue.



R11787338

Supplier Corrective Action Report

CCN: 290257

Attachment 9

(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-054

Rev: 0

Title: (b)(4) inadequate qualification of calibration service suppliers

Requirements/Referenced Documents

ISSUED BY

Requirement(s):

RPP-WTP PDC

- (b)(4)
1. (b)(4) QA Manual, RPP/WTP Quality Program Manual, Revision 5, dated 8/11/15, Section 7, Calibration Services, states in part, "The QA Manager is responsible to document a review of the laboratory's accreditation and quality manual and maintain these documents in the quality files."
 2. Subcontract, Exhibit J, Q Datasheet of ANSI/ASME NQA-1 (2000) Quality Assurance Program Requirements, Section A.2.e), states "The supplier must evaluate the validity of the certificate/accreditation. This evaluation must be documented and retained for review by purchaser"
 3. Subcontract, Exhibit J, Q Datasheet of ANSI/ASME NQA-1 (2000) Quality Assurance Program Requirements, Section A.2, states in part, "certification to ISO 9001 for calibration service providers when the company is the original equipment manufacturer (OEM) and a justification for using ISO 9001 is documented. Use of these certifications/accreditations requires that: a) The supplier's QA Program permits this method of qualification"

Trend Code: 7

WTP Source Document Number: 24590-WTP-AR-15-018

Description of Adverse Condition

- Contrary to Requirement 1 and 2 above, there is no objective evidence that the (b)(4) has performed and documented a review of the QA Manual and laboratory accreditations for (b)(4) prior to the addition of the supplier to the Approved Vendor List. (b)(4)
- Contrary to Requirement 3 above, the (b)(4) QA Manual does not address using ISO 9001 as a qualification method for OEM supplier Olympus. (b)(4)

Identified by:

(b)(6)

Title: Sr. QA Specialist/SQn Supervisor

Date: 9/17/15

Validated by:

Title: Sr. QA Specialist/SQn Supervisor

Date: 9/17/15

Adverse Condition Evaluation

Classification: ☒ Non-significant? ☐ Significant

Impact Evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☐ Yes - Addressed in WTP-CR / NCR / CDR:☒ No - No impact (Justification required): No impact to WTP work

Is a stop work required prevent the condition from recurring in the supplier's production line?

☐ Yes ☒ No



Supplier Corrective Action Report

CCN: 290257

Attachment 9

(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-054

Rev: 0

Title: (b)(4) Inadequate qualification of calibration service suppliers

Adverse Condition Evaluation

Is a stop shipment required to prevent the condition from affecting undelivered items / services?

☐ Yes☒ No

Restriction(s):

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsq@bechtel.com by November 30, 2015. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:

☒ Cause analysis☒ Extent of condition☒ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsq@bechtel.com.

Corrective Action Verification

Supplier corrective action plan received Response received via email from (b)(4), (b)(6) to WTP Supplier Qualification, (b)(4) Audit Response, dated January 14, 2016 (See CCN 284910)

Response was determined to be inadequate to close the SCAR. The response (b)(4) CAR 15-010 did not address the deficiencies identified in the SCAR. (See CCN)

Supplier corrective action plan verified acceptable (See CCN)

Supplier corrective actions completed (See CCN)

Supplier corrective actions verified complete and SCAR closed (See CCN 279724)

Reviewed completed CAR 15-010, closure approval dated 5/30/16, including cause, extent of condition, remedial action, actions to prevent recurrence. Reviewed objective evidence for closure including: Approved Vendors List (AVL), Revision 8, dated 2016; Memorandum to File for AVL placement for (b)(4)

(b)(4) of OEM Equipment, dated 2/1/16; Memorandum to File for AVL placement for (b)(4)

(b)(4) of OEM Equipment, dated 5/7/12; A2LA Certificate (b)(4) issued to (b)(4)

(b)(4) expiration date 1/31/2017; Memorandum to File for (b)(4) on AVL, dated 3/1/13 and Certificate of Registration to ISO 9001:2008, expiration date of 7/14/16. Supplier in the process of evaluating updated Certificate of Registration of (b)(4) to ISO 9001-2008 as original equipment manufacturer.

The above actions address the adverse conditions identified in this SCAR and were verified to be corrected and documented in surveillance 24590-WTP-SUV-QA-16-019.



Supplier Corrective Action Report

~~CCN-200252~~
~~Attachment 9~~
(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-054

Rev: 0

Title: (b)(4) Inadequate qualification of calibration service suppliers

Supplier Corrective Action Report Closure

Concurrence by:	(b)(6)	SQn Supervisor	(b)(6)	7/20/16
		Title		Date
Verified by:		SQn Supervisor		7/22/16
		Title		Date
Approved by:		Quality Assessments Manager		8/4/16
		Title		Date

Revision History:

Revision	Reason for Revision
0	Initial issue.



R11787337

Supplier Corrective Action Report

CCN: 290257

Attachment 8

(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-053

Rev: 0

Title: (b)(4) Document Control Requirements Inconsistent and Conflicting

Requirements/Referenced Documents

Requirement(s): QPM-001, R. 5, Section 6 states Website Distribution: (b)(4) Business Manager is responsible to ensure that the most current revision of a document is posted for use by (b)(4) employees and (b)(4) customers. Documents downloaded or printed from the website are "Information Only." Information only copies of NDE procedures downloaded from the secure web site may be used for inspections provided the copy is verified as the current revision. The following disclaimer shall be included on the cover page of the controlled document for electronic distribution:

"Date of Posting: xx/xx/xxxx The only official (controlled) copy of this document is the online version. Before using a printed copy, verify that it is the most current version by checking the document effective date on this website or share area."

Trend Code: 6

WTP Source Document Number: 24590-WTP-AR-QA-15-018

ISSUED BY
RPP-WTP PDC

Description of Adverse Condition

Contrary to requirement 1 above, the disclaimer does not state "Date of Posting: xx/xx/xxxx"

In addition, the QA Program Manual and NDE procedures provided by (b)(4) during the audit were not stamped "controlled" or "Information Only." Only the QPM was stamped in red "Controlled Issue Number: 01, To BNI for Review/Approval." The QPM and QA implementing procedures submitted to BNI during the audit planning were not stamped controlled or for information only. This is a repeat of an inconsistency identified in 24590-WTP-AR-QA-12-029, which further stated that "On further investigation into document control, it was noted that these documents had not been entered in the Supplier's Controlled Document Log."

Identified by: (b)(6) Title: Sr. QA Specialist/ATL Date: September 17, 2015

Validated by: (b)(6) Title: Sr. QA Specialist/ATL Date: September 17, 2015

Adverse Condition Evaluation

Classification: ☐ Non-significant? ☐ Significant

Impact Evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☐ Yes - Addressed in WTP-CR / NCR / CDR:

☒ No - No impact (Justification required): (b)(4) NDE personnel who perform NDE activities at the WTP have orientation of the WTP QA Program and perform NDE activities at the WTP to WTP NDE procedures.

Is a stop work required prevent the condition from recurring in the supplier's production line?

☐ Yes ☐ No

Is a stop shipment required to prevent the condition from affecting undelivered items / services?

☐ Yes ☐ No

Restriction(s):

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsqu@bechtel.com by November 30, 2015. In addition to immediate, compensatory, and remedial



Supplier Corrective Action Report

CCN: 290257
Attachment 8
(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-053

Rev: 0

Title: (b)(4) Document Control Requirements Inconsistent and Conflicting

actions to resolve the adverse condition, the corrective action document must address the following selected items:

- ☐ Cause analysis
- ☐ Extent of condition
- ☐ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsgu@bechtel.com.

Corrective Action Verification

Supplier corrective action plan received Response received via email from (b)(4), (b)(6) to WTP Supplier Qualification, (b)(4) Audit Response, dated January 14, 2016 (See CCN 284910)

Response was determined to be inadequate to close the SCAR. The response (b)(4) CAR 15-008) did not address the deficiencies identified in the SCAR. (See CCN) (b)(4)

Supplier corrective action plan verified acceptable (See CCN)

Supplier corrective actions completed (See CCN)

Supplier corrective actions verified complete and SCAR closed (See CCN 279724)

Audit 24590-WTP-AR-QA-15-018 performed September 14 - 17, 2015 identified a deficiency as documented in SCAR-QA-15-053 which states the Supplier provided procedures to the audit team for review in preparation of the audit that were not stamped "controlled" or "information only" and this was contrary to the requirement as stated in the Supplier's QA Manual, Revision 5, Section 6.

The requirement states Website Distribution: (b)(4) Business Manager is responsible to ensure that the most current revision of a document is posted for use by (b)(4) employees and (b)(4) customers. Documents downloaded or printed from the website are "Information Only." Information only copies of NDE procedures downloaded from the secure website may be used for inspection provided the copy is verified as the current revision. (b)(4)

The deficiency as identified in the SCAR-QA-15-053 has been determined not to be a deficiency since the requirement did not require procedures downloaded to be stamped as "information only" only verified by the user that the printed copy is the current version from the secure website. Therefore, this SCAR will be closed administratively in accordance with WTP procedure 24590-WTP-GPP-RAQA-QA-2005, Supplier Corrective Action, Section 6.10.1.

Supplier Corrective Action Report Closure

Concurrence by:	(b)(6)	SQn Supervisor	(b)(6)	7/22/16
		Title		Date
Verified by:		SQn Supervisor		7/22/16
		Title		Date
Approved by:		Quality Assessments Manager		8/4/16
		Title		Date



Supplier Corrective Action Report

~~CCN: 290257~~

~~Attachment 2~~

(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-053

Rev: 0

Title: (b)(4) Document Control Requirements Inconsistent and Conflicting

Revision History:

Revision	Reason for Revision
0	Initial issue.



R11787336

Supplier Corrective Action Report

CCN: 200257

Attachment 7

(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-052

Rev: 0

Title: (b)(4) Procurement Document Control

Requirements/Referenced Documents

Requirement(s):

1. (b)(4) Quality Procedure QP-04, *Procurement Document Control*, Revision 4, dated 9/20/13, Section 4.2, states in part "When required by (b)(4) Customer or deemed necessary by (b)(4) the appropriate quality clause(s) in addition to 4.1.A-D will be identified and included with the purchase order" (b)(4)

Trend Code: 4

WTP Source Document Number: 24590-WTP-AR-QA-15-018

ISSUED BY
RPP-WTP PDC

Description of Adverse Condition

Contrary to requirement 1 above, several of the 2015 purchase orders reviewed did not have quality clauses included with the purchase order. These missing quality clauses were discussed with the (b)(4) Business Manager. The (b)(4) Business Manager corrected these 2015 purchase orders during the audit, however, this deficiency has been identified in previous audits, and was subject of (b)(4) Corrective Action Report #CAR 13-001, dated 9/13/13. The subject CAR was closed 10/13/13 and thus far has not prevented recurrence. (b)(4)

Identified by:

(b)(6)

Title: Sr. QA Specialist/SQn Supervisor

Date: 9/17/15

Validated by:

Title: Sr. QA Specialist/SQn Supervisor

Date: 9/17/15

Adverse Condition Evaluation

Classification: ☒ Non-significant? ☐ Significant

Impact Evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☐ Yes - Addressed in WTP-CR / NCR / CDR:

☒ No - No impact (Justification required): None of the purchase orders issued in 2015 that were missing quality clauses have impact to WTP work activities performed by (b)(4)

Is a stop work required prevent the condition from recurring in the supplier's production line?

☐ Yes ☒ No

Is a stop shipment required to prevent the condition from affecting undelivered items / services?

☐ Yes ☒ No

Restriction(s):

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsq@bechtel.com by November 30, 2015. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:

☒ Cause analysis

☒ Extent of condition



Supplier Corrective Action Report



CCN: 290257

Attachment 4

(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-048

Rev: 0

Title: (b)(4) Ineffective Corrective Actions

ISSUED BY

RPP-WTP PDC

Requirements/Referenced Documents

Requirement(s):

1. Quality Procedure 16 section 1 states, "Acceptance of successful completion of all actions will be documented when the CAR is closed." Section 3.1 states "The CAR will document the following at a minimum: E. Actions to resolve/minimize recurrence, F. Follow-up actions to allow closure (e.g. Surveillance) and G. QAM Signature/Date for Closure.
2. QPM-01 section 16 states, "Follow-up to assure the actions were taken and the results were satisfactory allowing closure of CAR".
3. QPM-01 section 16 states, (b)(4) employees are required to report a possible violation or deficiency in or to (b)(4) quality."
4. Quality Procedure 16 section 4 which states, "The root cause of all significant adverse conditions will be determined".
5. Quality Procedure -16 section 5.2 states, "When Deficiencies in Implementing, Documenting or Maintaining the Quality Program is reported or identified the president, Level III and/or QTSM will determine whether to process as an NCR or as a Corrective Action Report in accordance with QWP-16, Corrective Action.
6. QPM-01 section 16 states "If the CAR has impact to work in progress for a Customer, BNI shall be notified." And "Additional requirements may be added if deemed necessary."

Trend Code: 16

WTP Source Document Number: 24590-WTP-AR-QA-15-18

Description of Adverse Condition

Contrary to the above the following discrepancies were found:

1. Contrary to requirement 1, (b)(4) 2-11 was closed out without objective evidence that the corrective actions listed in the CAR were completed. (b)(4) 15-001 the 2015 CAR index indicated the CAR was closed in March of 2015 the CAR closure was not signed.
2. Contrary to requirement 2 the following are examples where the Corrective Action Program was not effective in correcting identified issues:
24590-WTP-SCAR-QA-15-052 – Not all Quality Clauses were included in purchase orders. This issue was also addressed by CARs (b)(4) 12-003, (b)(4) 12-013 and (b)(4) 13-001.
24590-WTP-SCAR-QA-09-028 identified that sections 10 (inspection) and 11 (test control) were not evaluated during the 2008 (b)(4) internal audit and that there was no audit schedule. This SCAR was closed out administratively as the (b)(4) contract expired. This issued was not corrected and the same type of issue was identified during Supplier Audit - February 2012 – (b)(4) has not performed and internal audit since April 2008, and (b)(4) Audit – 2011 – (b)(4) Internal Audit Plan
24590-WTP-SCAR-QA-09-028 identified that there was no objective evidence that the responsible management reviewed of the results of audits. This SCAR was closed out administratively as the (b)(4) contract expired. This issue was not corrected. Various other management signatures missing on documentation have been found; Supplier Audit 2012 – A few POs that required QTSM signature did not have it. Internal Audit 2014 – The POs had not been reviewed and approved by (b)(4) president or QTSM as required. (b)(4) Audit 6/14 – (b)(4) president signature missing on 2 CARs and (b)(4) Audit 2012 – POs had not been reviewed and approved by the (b)(4) President or QTSM as required by QP-04 sect 4.3.
24590-WTP-SCAR-QA-09-036 identified that Lead Auditor training does not completely address NQA-1 2000 requirements. This SCAR was closed out administratively as the (b)(4) contract expired. This issue was not corrected and similar issues were identified; (b)(4) Audit 2011 Car 11-04 issued for Lead Auditor Certification



Supplier Corrective Action Report

CCN: 290257

Attachment 4

(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-048

Rev: 0

Title: (b)(4) Ineffective Corrective Actions

and Internal Audit November 2014 – Lead Auditor Qualification form does not meet the requirements of NQA-1 24590-WTP-SCAR-QA-15-051 – identifies missing documentation for indoctrination and training for the (b)(4) president and QTSM. (b)(4) audit September 2013 – Training had not been accomplished/documentated for (b)(4)

President, Business Manager and Administrative Assistant. (The QTSM signed the training on the 1st day of the (b)(4) audit), Internal Audit November 2014 – Documented Evidence for training to NDE procedures and/or revisions could not be found for all qualified NDE personnel. (b)(4) Audit 2012 Documented evidence for training to all QA procedures has not been accomplished and (b)(4) Audit August 2013 – Documented Evidence for training to R3 of QPM had not been accomplished.

3. Contrary to requirement 3 QP-16 states "All employees are responsible and encouraged to report deficiencies or potential deficiencies."
4. Contrary to requirement 4 QP-16 Supplement General Section states "that a Root Cause Analysis may be initiated by (b)(4) president, QA Manager or Administrative Manager".
5. Contrary to requirement 5 NCR 13-001 was initiated to document that a piece of M&TE was found out of calibration. The NCR was initiated to address the equipment problem. There was no CAR initiated to address the failure of the QA program to ensure that the M&TE was calibrated prior to the calibration due date.
6. There are no procedures that implement QPM requirements listed in requirement 6.

Identified by: (b)(6)

Title: Sr. QA Specialist

Date: 9/17/15

Validated by:

Title: Sr. QA Specialist/ATL

Date: 9/17/15

Adverse Condition Evaluation

Classification: ☐ Non-significant? ☒ Significant

Impact Evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☐ Yes – Addressed in WTP-CR / NCR / CDR:

☒ No – No impact (Justification required): this is a programmatic breakdown issue. However this is a significant condition adverse to quality.

Is a stop work required prevent the condition from recurring in the supplier's production line?

☐ Yes ☒ No

Is a stop shipment required to prevent the condition from affecting undelivered items / services?

☐ Yes ☒ No

Restriction(s):

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsqn@bechtel.com by November 30, 2015. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:

☒ Cause analysis

☒ Extent of condition

☒ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all



Supplier Corrective Action Report

CCN: 290257-

Attachment 4

(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-048

Rev: 0

Title: (b)(4) Ineffective Corrective Actions

applicable objective evidence to substantiate resolution of the adverse condition to wtpsqu@bechtel.com.

Corrective Action Verification

(b)(4) Supplier corrective action plan received Response received via email from (b)(4), (b)(6) to WTP Supplier Qualification, (b)(4) Audit Response," dated January 14, 2016 (See CCN 284910)

Response was determined to be inadequate to close the SCAR. The response (b)(4) CAR 15-005) did not address the deficiencies identified in the SCAR.

Supplier corrective action plan verified acceptable (See CCN)

Supplier corrective actions completed (See CCN)

Supplier corrective actions verified complete and SCAR closed (See CCN 279724)

Reviewed completed CAR 15-005, closure approval dated 5/30/16, including cause, extent of condition, remedial action, actions to prevent recurrence. Reviewed objective evidence for closure including: Classroom training record indicating training of QAM-001, Revision 0, Section 16, Corrective Action, and procedure QP 16, Corrective Action, Revision 2, with the emphasis that the deficiencies identified in the audit were related to CRs 12-011, 12-013, 13-001, because the contracts were closed, the corrective actions were also closed. The training provided that when this condition exists of contracts closed, the corrective actions to the quality program need to be completed.

The above actions address the adverse conditions identified in this SCAR and were verified to be corrected and documented in surveillance 24590-WTP-SUV-QA-16-019.

Supplier Corrective Action Report Closure

Concurrence by:	(b)(6)	SQn Supervisor	(b)(6)	7/22/14
		Title		Date
Verified by:		SQn Supervisor		7/22/14
		Title		Date
Approved by:		Quality Assessments Manager		8/4/16
		Title	Signature	Date

Revision History:

Revision	Reason for Revision
0	Initial issue.



Supplier Corrective Action Report



CCN: 290237

Attachment 4

(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-048

Rev: 0

Title: (b)(4) Ineffective Corrective Actions

ISSUED BY

RPP-WTP PDC

Requirements/Referenced Documents

Requirement(s):

1. Quality Procedure 16 section 1 states, "Acceptance of successful completion of all actions will be documented when the CAR is closed." Section 3.1 states "The CAR will document the following at a minimum: E. Actions to resolve/minimize recurrence, F. Follow-up actions to allow closure (e.g. Surveillance) and G. QAM Signature/Date for Closure."
2. QPM-01 section 16 states, "Follow-up to assure the actions were taken and the results were satisfactory allowing closure of CAR".
3. QPM-01 section 16 states, (b)(4) employees are required to report a possible violation or deficiency in or to (b)(4) quality."
4. Quality Procedure 16 section 4 which states, "The root cause of all significant adverse conditions will be determined".
5. Quality Procedure -16 section 5.2 states, "When Deficiencies in Implementing, Documenting or Maintaining the Quality Program is reported or identified the president, Level III and/or QTSM will determine whether to process as an NCR or as a Corrective Action Report in accordance with QWP-16, Corrective Action."
6. QPM-01 section 16 states "If the CAR has impact to work in progress for a Customer, BNI shall be notified." And "Additional requirements may be added if deemed necessary."

Trend Code: 16

WTP Source Document Number: 24590-WTP-AR-QA-15-18

Description of Adverse Condition

Contrary to the above the following discrepancies were found:

1. Contrary to requirement 1 (b)(4) 12-11 was closed out without objective evidence that the corrective actions listed in the CAR were completed. (b)(4) 15-001 the 2015 CAR index indicated the CAR was closed in March of 2015 the CAR closure was not signed.

2. Contrary to requirement 2 the following are examples where the Corrective Action Program was not effective in correcting identified issues:

24590-WTP-SCAR-QA-15-052 - Not all Quality Clauses were included in purchase orders. This issue was also addressed by CARs (b)(4) 12-003, (b)(4) 12-013 and (b)(4) 3-001.

24590-WTP-SCAR-QA-09-028 identified that sections 10 (inspection) and 11(test control) were not evaluated during the 2008 (b)(4) internal audit and that there was no audit schedule. This SCAR was closed out

administratively as the (b)(4) contract expired. This issued was not corrected and the same type of issue was identified during Supplier Audit - February 2012 - (b)(4) has not performed and internal audit since April 2008,

and (b)(4) Audit - 2011 - (b)(4) Internal Audit Plan

24590-WTP-SCAR-QA-09-028 identified that there was no objective evidence that the responsible management reviewed of the results of audits. This SCAR was closed out administratively as the (b)(4) contract expired. This issue was not corrected. Various other management signatures missing on documentation have been found;

Supplier Audit 2012 - A few POs that required QTSM signature did not have it, Internal Audit 2014 - The POs had not been reviewed and approved by (b)(4) president or QTSM as required, (b)(4) Audit 6/14 - (b)(4) president

signature missing on 2 CARs and (b)(4) Audit 2012 - POs had not been reviewed and approved by the (b)(4) President or QTSM as required by QP-04 sect 4.3.

24590-WTP-SCAR-QA-09-036 identified that Lead Auditor training does not completely address NQA-1 2000 requirements. This SCAR was closed out administratively as the (b)(4) contract expired. This issue was not corrected and similar issues were identified; (b)(4) Audit 2011 Car 11-04 issued for Lead Auditor Certification



Supplier Corrective Action Report

CCN: 290257

Attachment 4

(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-048

Rev: 0

Title: (b)(4) Ineffective Corrective Actions

and Internal Audit November 2014 – Lead Auditor Qualification form does not meet the requirements of NQA-1 24590-WTP-SCAR-QA-15-051 – identifies missing documentation for indoctrination and training for the (b)(4) president and QTSM. (b)(4) audit September 2013 – Training had not been accomplished/documented for (b)(4) President, Business Manager and Administrative Assistant. (The QTSM signed the training on the 1st day of the (b)(4) audit), Internal Audit November 2014 – Documented Evidence for training to NDE procedures and/or revisions could not be found for all qualified NDE personnel. (b)(4) Audit 2012 Documented evidence for training to all QA procedures has not been accomplished and (b)(4) Audit August 2013 – Documented Evidence for training to R3 of QPM had not been accomplished.

3. Contrary to requirement 3 QP-16 states "All employees are responsible and encouraged to report deficiencies or potential deficiencies."
4. Contrary to requirement 4 QP-16 Supplement General Section states "that a Root Cause Analysis may be initiated by (b)(4) president, QA Manager or Administrative Manager".
5. Contrary to requirement 5 NCR 13-001 was initiated to document that a piece of M&TE was found out of calibration. The NCR was initiated to address the equipment problem. There was no CAR initiated to address the failure of the QA program to ensure that the M&TE was calibrated prior to the calibration due date.
6. There are no procedures that implement QPM requirements listed in requirement 6.

Identified by: (b)(6)

Title: Sr. QA Specialist

Date: 9/17/15

Validated by:

Title: Sr. QA Specialist/ATL

Date: 9/17/15

Adverse Condition Evaluation

Classification: ☐ Non-significant? ☒ Significant

Impact Evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☐ Yes – Addressed in WTP-CR / NCR / CDR:☒ No – No impact (Justification required): this is a programmatic breakdown issue. However this is a significant condition adverse to quality.

Is a stop work required prevent the condition from recurring in the supplier's production line?

☐ Yes ☒ No

Is a stop shipment required to prevent the condition from affecting undelivered items / services?

☐ Yes ☒ No

Restriction(s):

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsqu@bechtel.com by November 30, 2015. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:

- ☒ Cause analysis
- ☒ Extent of condition
- ☒ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all



Supplier Corrective Action Report

CCN: 290257-

Attachment 4

(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-048

Rev: 0

Title: (b)(4) Ineffective Corrective Actions

applicable objective evidence to substantiate resolution of the adverse condition to wtpsqu@bechtel.com.

Corrective Action Verification

(b)(4) Supplier corrective action plan received Response received via email from (b)(4) to WTP Supplier Qualification, (b)(4) Audit Response," dated January 14, 2016 (See CCN 284910)

Response was determined to be inadequate to close the SCAR. The response (b)(4) CAR 15-005) did not address the deficiencies identified in the SCAR. (b)(4)

Supplier corrective action plan verified acceptable (See CCN)

Supplier corrective actions completed (See CCN)

Supplier corrective actions verified complete and SCAR closed (See CCN 279724)

Reviewed completed CAR 15-005, closure approval dated 5/30/16, including cause, extent of condition, remedial action, actions to prevent recurrence. Reviewed objective evidence for closure including: Classroom training record indicating training of QAM-001, Revision 0, Section 16, Corrective Action, and procedure QP 16, Corrective Action, Revision 2, with the emphasis that the deficiencies identified in the audit were related to CRs 12-011, 12-013, 13-001, because the contracts were closed, the corrective actions were also closed. The training provided that when this condition exists of contracts closed, the corrective actions to the quality program need to be completed.

The above actions address the adverse conditions identified in this SCAR and were verified to be corrected and documented in surveillance 24590-WTP-SUV-QA-16-019.

Supplier Corrective Action Report Closure

Concurrence by:	(b)(6)	SQn Supervisor	(b)(6)	7/23/14
		Title		Date
Verified by:		SQn Supervisor		7/23/14
		Title		Date
Approved by:		Quality Assessments Manager		8/4/16
		Title	Signature	Date

Revision History:

Revision	Reason for Revision
0	Initial issue.



R11787332

Supplier Corrective Action Report

CCN: 290257

Attachment 3

(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-047

Rev: 0

Title: (b)(4) Quality Records Missing from Records Files

Requirements/Referenced Documents

Requirement(s): 1. (b)(4) Quality Procedure QP 17.0, Revision 0 dated August 5, 2015, Section 2.1 which states: Documents classified as quality assurance records include, but are not limited to, the following:

- a. NDE inspection and test records;
- b. Surveillance reports;
- c. Receiving inspections/Purchase Orders
- d. Audits, assessments;
- e. Nonconformance reports;
- f. Corrective Action Reports;
- h. Personnel qualifications/certifications; and
- i. Records required by this Program or specified by (b)(4) customer.

ISSUED BY
RPP-WTP PDC

Trend Code: 17

WTP Source Document Number: 24590-WTP-AR-QA-15-018

Description of Adverse Condition

Contrary to requirement 1 above it was discovered that the control over records had not been formalized. It was discovered during reviews of both electronic and hardcopy records were not signed with "wet" signatures or signed at all, some were the forms or form letters without signatures, some signatures were typed with no reference to an actual legal signature on file, the locations of some of the records were questionable. The records were neither in the hard copy files nor the electronic files. Complete record files, such as internal audit files did not contain the audit plan, auditor quals, audit checklist, audit report, any CARs generated, corrective action closures, etc. A PO (b)(4) and receipt inspection record was lost before it could be entered into the records system. CAR records had not been scanned to the records file. Records from the following Records Index categories had not been scanned into the electronic records as required: QA.2 Internal QA Program Audits Reports; Q.4 Internal NCR; Q.5 Lead auditor Certification; Q.8 CARs; Q.11 (b)(4) QA program; Q.12 QA Customer QA Program Audit Reports - nothing entered after 2007; and QA.13 AVL not entered since 2012. There was no procedure to ensure that the records generated are scanned to the record files. The QAM had records stored on her computer that were not also present in the electronic records. The QAM's computer was not linked to the RMS's secured computer, therefore, the records were not consistently transferred to the (b)(4) records. (b)(4) self-identified the gap in the scan and file process for these record indices as an internal CAR for action.

Identified by: (b)(6)	Title: Sr. QA Specialist/ATL	Date: September 17, 2015
Validated by: (b)(6)	Title: Sr. QA Specialist/ATL	Date: September 17, 2015

Adverse Condition Evaluation

Classification: ☒ Non-significant? ☐ Significant

Impact Evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☐ Yes - Addressed in WTP-CR / NCR / CDR:☒ No - No impact (Justification required): Does not affect BNI hardware or support.

Is a stop work required prevent the condition from recurring in the supplier's production line?

☐ Yes ☐ No



Supplier Corrective Action Report

CCN: 290257

Attachment 3

(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-047

Rev: 0

Title: (b)(4) Quality Records Missing from Records Files

Adverse Condition Evaluation

Is a stop shipment required to prevent the condition from affecting undelivered items / services? ☐ Yes ☐ No

Restriction(s):

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsqu@bechtel.com by November 30, 2015. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:

- ☒ Cause analysis
- ☒ Extent of condition
- ☒ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsqu@bechtel.com.

Corrective Action Verification

Supplier corrective action plan received: Response received via email from (b)(4) to WTP Supplier Qualification, (b)(4) Audit Response, dated January 14, 2016 (See CCN 284910)

(b)(4), (b)(6)

Response was determined to be inadequate to close the SCAR. The response (b)(4) CAR 15-003) did not address the deficiencies identified in the SCAR.

(b)(4)

Response was determined to be inadequate to close the SCAR. (See CCN)

Supplier corrective action plan verified acceptable (See CCN)

Supplier corrective actions completed (See CCN)

Supplier corrective actions verified complete and SCAR closed (See CCN 290257)

Reviewed completed CAR 15-003, closure approval dated 5/30/16, including cause, extent of condition, remedial action, actions to prevent recurrence. Reviewed objective evidence for closure including: Root cause analysis checklist dated 5/4/16; Surveillance Report of electronic files and QA Records dated 11/11/15; QA Records Index, Revision 1; Classroom training to QAM-001, Revision 0, Section 17, *Quality Assurance Records*, dated 5/4/16; Class Attendance sheet (required reading) dated 4/28/16 and 5/4/16; Procedure QP 17.0, *Quality Assurance Records*, Revision 0, dated 4/28/16. Verified that PO (b)(4) issued to (b)(4) 9/17/15 was in the record files.

The above actions address the adverse conditions identified in this SCAR and were verified to be corrected and documented in surveillance 24590-WTP-SUV-QA-16-019.



Supplier Corrective Action Report

CCN: 290257

Attachment 3

(b)(6) 8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-047

Rev: 0

(b)(4)

Title: [Redacted] Quality Records Missing from Records Files

Supplier Corrective Action Report Closure

Concurrence by:	(b)(6)	SQn Supervisor	(b)(6)	7-22-16
		Title		Date
Verified by:		SQn Supervisor		7-22-16
		Title		Date
Approved by:		Quality Assessments Manager		8/4/16
		Title	Signature	Date

Revision History:

Revision	Reason for Revision
0	Initial issue.



R11787331

Supplier Corrective Action Report

ECN: 290257-

Attachment 2

(b)(6)

8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-046

Rev: 0

Title: (b)(4) Lack of documentation to Support Compliance with QP 18, Internal Audits.

Requirements/Referenced Documents

- (b)(4) Requirement(s): 1. (b)(6) Quality Program Manual, QPM-100, Revision 5, dated August 8, 2015, Section 18 Audits. Internal and independent audits will be performed on a regular basis for implementation verification. The QAM will advise the president of planned audits based on the status and importance of the activity. Audits may be scheduled for specific areas when deemed necessary by the QAM or president.
- (b)(4) 2. (b)(6) Quality Program Manual, QPM-100, Revision 5, dated August 8, 2015, Section 18, Audits, states Audit reports will be reviewed by (b)(4) president. Actions required to correct any findings will be agreed on with the QAM and the appropriate actions initiated. Follow-up by the president or QAM will be documented to verify the action was taken and is effective. Quality Procedure QP 18, Internal Audits, Revision 4, dated August 17, 2015, Section 4.4 which states Corrective actions will be implemented. The anticipated date for follow-up action verification will be determined to assure actions are taken in a timely manner. Final documentation of closure of the required actions may be by surveillance or other means deemed appropriate

Trend Code: 18

WTP Source Document Number: 24590-WTP-AR-QA-15-018

**ISSUED BY
RPP-WTP PDC**

Description of Adverse Condition

Contrary requirement 1 above, no formal schedule was identified. No documentation of QAM advising the president of planned audit based on the status and importance of the activity. No specific audits were identified or planned. No documentation available. Since 2012 internal independent audits have been performed every 2 years. No formal schedule was identified. No documentation of QAM advising the president of planned audit based on the status and importance of the activity.

- (b)(4) Contrary to requirement 2 above, no objective evidence documented to verify that the audit reports are reviewed by the (b)(6) president. No objective evidence was identified to support that follow-up by the president or QAM was documented to verify the action was taken and is effective. Nor was any final documentation of closure of the required actions by surveillance or other means deemed appropriate identified.

Identified by: (b)(6)	Title: Sr. QA Specialist/ATL	Date: September 17, 2015
Validated by:	Title: Sr. QA Specialist/ATL	Date: September 17, 2015

Adverse Condition Evaluation

Classification: ☒ Non-significant? ☐ Significant

Impact Evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☐ Yes - Addressed in WTP-CR / NCR / CDR:☒ No - No impact (Justification required): No impact on WTP hardware

Is a stop work required prevent the condition from recurring in the supplier's production line?

☐ Yes ☐ No

Is a stop shipment required to prevent the condition from affecting undelivered items / services?

☐ Yes ☐ No

Restriction(s):



Supplier Corrective Action Report

CCN: 290257

Attachment 2

(b)(6)

8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-046

Rev: 0

(b)(4)

Title: [REDACTED] Lack of documentation to Support Compliance with QP 18, Internal Audits.

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsgu@bechtel.com by November 30, 2015. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:

- ☐ Cause analysis
- ☐ Extent of condition
- ☐ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsgu@bechtel.com.

Corrective Action Verification

(b)(4)

Supplier corrective action plan received: Response received via email from (b)(4) to WTP Supplier Qualification, (b)(4) Audit Response," dated January 14, 2016 (See CCN 284910)

Response was determined to be inadequate to close the SCAR. The response (b)(4) CAR 15-004) did not address the deficiencies identified in the SCAR.

(b)(4)

Supplier corrective action plan determined unacceptable (see CCN)

Supplier corrective action plan verified acceptable (See CCN)

Supplier corrective actions completed (See CCN)

Supplier corrective actions verified complete and SCAR closed (See CCN 290257)

Reviewed completed CAR 15-004, closure approval dated 5/30/16, including cause, extent of condition, remedial action, actions to prevent recurrence. Reviewed objective evidence for closure including: 2016 Client, Internal & External Supplier Audit Schedule, with approval signatures for the QA Manager and the (b)(4) President; Classroom training given on the QAM-001, Revision 0, Section 18, Audits and procedure QP 18-01, Internal Audits, dated 5/5/16. The training was to ensure that with the revision of an audit schedule, that includes the requirement for the President to review the schedule and to document his review on the schedule. Subsequently, the audit procedure, QP 18 was revised to include the requirement and a title change to the procedure to "Audits". This procedure was issued 5/30/16.

(b)(4)

The above actions address the adverse conditions identified in this SCAR and were verified to be corrected and documented in surveillance 24590-WTP-SUV-QA-16-019.



Supplier Corrective Action Report

GCN: 290257

Attachment 2

(b)(6)

8/4/16

Date: September 17, 2015

Document No.: 24590-WTP-SCAR-QA-15-046

Rev: 0

(b)(4)

Title: (b)(6) Lack of documentation to Support Compliance with QP 18, Internal Audits.

Supplier Corrective Action Report Closure

Concurrence by:	(b)(6)	SQn Supervisor	(b)(6)	7/22/16
		Title		Date
Verified by:		SQn Supervisor		7/22/16
		Title		Date
Approved by:		Quality Assessments Manager		8/4/16
		Title		Date

Revision History:

Revision	Reason for Revision
0	Initial issue.



Supplier Corrective Action Report



CCN: 281930

Attachment 5

(b)(6) 6/23/16

Date: June 22, 2016

Document No.: 24590-WTP-SCAR-QA-15-044

Rev: 0

(b)(4) Title: (b)(4) Quality Assurance Program Does Not Meet NQA-1-1989 Basic Plus Supplements 1S-1, 9S-1, 11S-1, and 11S-2

Requirements/Referenced Documents

ISSUED BY

RPP-WTP PDC

Requirement(s):

- 24590-WTP-3PD-MJW0-00002, Supplier Quality Assurance Program Requirements Data Sheet ANSI/ASME NQA-1/2 (1989) and DOE/RW-0333P (QARD), Revision 1, dated February 5, 2004. Basic plus Supplements 1S-1, 9S-1, 11S-1, and 11S-2
- (b)(4) Quality Policy Manual, Version 6 (QPM), Revision 1, dated August 17, 2011

Trend Code: 2

WTP Source Document Number: (b)(4) Power Manipulators L/S (MH029)(VHK5)(ECI), Revision 19, dated May 1, 2014

Description of Adverse Condition

The NQA-1-based (b)(4) Quality Policy Manual, Version 6 (QPM), Revision 1, dated August 17, 2011, was based on NQA-1 2008/2009a. The Q datasheet contained within the BNI WTP PO (b)(4) awarded to (b)(4) required that (b)(4) maintain a Quality Assurance Manual in accordance with NQA-1 1989 plus NQA-1 1989 Supplements 1S-1, 9S-1, 11S-1, and 11S-2. The QPM was reviewed against the NQA-1989 requirements and found to contain deficiencies in the NQA-1 Requirements. The QPM does not establish NQA-1 1989 requirements in total based on the Q datasheet. The procedures are not documents that specify or describe how an activity or activities is(are) to be performed as defined by the NQA-1 standard.

Identified by: (b)(6)	Title: Sr. Quality Assurance Engineer/ATL	Date: August 25, 2015
Validated by: (b)(6)	Title: Sr. Quality Assurance Engineer/ATL	Date: August 25, 2015

Adverse Condition Evaluation

Classification: ☒ Non-significant? ☐ Significant

Impact Evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☐ Yes - Addressed in WTP-CR / NCR / CDR:

☒ No - No impact (Justification required): The power manipulators have not been delivered to WTP.

Is a stop work required prevent the condition from recurring in the supplier's production line? ☒ Yes ☐ No

Is a stop shipment required to prevent the condition from affecting undelivered items / services? ☒ Yes ☐ No

Restriction(s): (b)(4) cannot work on or deliver WTP products until deficiencies are corrected, verified, and an audit is performed of the implementation.

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective



Supplier Corrective Action Report

CCN: 284936

Attachment 3

(b)(6)

6/23/16

Date: June 22, 2016

Document No.: 24590-WTP-SCAR-QA-15-044

Rev: 0

Title: (b)(4) Quality Assurance Program Does Not Meet NQA-1-1989 Basic Plus Supplements 1S-1, 9S-1, 11S-1, and 11S-2

Supplier Response Direction (continued)

action document to wtpsgu@bechtel.com by October 29, 2015. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:

- ☒ Cause analysis
- ☒ Extent of condition
- ☒ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsgu@bechtel.com.

Corrective Action Verification

The Supplier responded to the SCAR on 9/28/2016 as documented in CCN 284901. In the response, the Supplier disagreed with the adverse condition documented in the SCAR. WTP Supplier Qualification rejected the response via CCN 285620.

During WTP Audit #24590-WTP-AR-QA-16-010, the Supplier's QPM and procedures, instructions, drawings, forms, and the Project Quality Plan (PQP) for the WTP contract were reviewed against the requirements of 24590-WTP-3PD-MJW0-00002, *Supplier Quality Assurance Program Requirements Data Sheet ANSI/ASME NQA-1/2 (1989) and DOE/RW-0333P (QARD)*, Rev 1, dated 2/5/2004. Based on the review, the QPM has been determined to be Satisfactory because it addresses the applicable NQA-1 1989 requirements at an appropriate level. The audit team also determined that there are adequate controls for the performance of quality-affecting activities taking into account the direction in the QPM, supplemented by procedures, instructions, drawings, forms, and the PQP for the WTP contract. As a result, it is acceptable to close SCAR #24590-WTP-SCAR-QA-15-044 and remove the associated stop work/ship restriction. (AKW, 6/15/2016)

Supplier Corrective Action Report Closure

Concurrence by:	NA	NA	NA	NA
	Print/Type Name	Title	Signature	Date
Verified by:	(b)(6)	Sr. QA Specialist	(b)(6)	6/22/2016
Approved by:		Quality Assessment Manager		6/23/16

Revision History:

Revision	Reason for Revision
0	Initial issue.



R11785510

Supplier Corrective Action Report

CON-287735

(b)(6)

Attachment 1
7/19/16

ISSUED BY

Date: July 6, 2015 RPP-WTP PDC Document No.: 24590-WTP-SCAR-QA-15-043 Rev: 0

Title: (b)(4) Quality Assurance Program Does Not Meet NQA-1-1989 Basic Plus Supplements

Requirements/Referenced Documents

Requirement(s):

- 24590-WTP-3PD-MPE0-00002, Supplier Quality Assurance Program Requirements Data Sheet ANSI/ASME NQA-1/2 (1989) and DOE/RW-0333P (QARD), Rev 2, dated November 26, 2002. Basic plus all Supplements.
- (b)(4) Quality Policy Manual, Version 6 (QPM), Revision 1, dated August 17, 2011

Trend Code: 2

WTP Source Document Number: (b)(4) Fluidic Devices - JPP's (VWLR), Revision 15, dated October 14, 2011

Description of Adverse Condition

The NQA-1-based (b)(4) Quality Policy Manual, Version 6 (QPM), Revision 1, dated August 17, 2011, was based on NQA-1 2008/2009a. The Q datasheet contained within the BNI WTP PO (b)(4) awarded to (b)(4) required that (b)(4) maintain a Quality Assurance Manual in accordance with NQA-1 1989 plus all the NQA-1 1989 Supplements and NQA-2a 1990 for software. The QPM was reviewed against the NQA-1989 requirements and found to contain deficiencies in the NQA-1 Requirements. The QPM does not establish NQA-1 1989 requirements in total based on the Q datasheet. The procedures are not documents that specify or describe how an activity or activities is(are) to be performed as defined by the NQA-1 standard. (b)(4)

Identified by: (b)(6)	Title: Sr. Quality Assurance Engineer/ATL	Date: August 25, 2015
Validated by: (b)(6)	Title: Sr. Quality Assurance Engineer/ATL	Date: August 25, 2015

Adverse Condition Evaluation

Classification: ☐ Non-significant? ☒ Significant

Impact Evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☒ Yes - Addressed in WTP-CR / NCR / CDR: 24590-WTP-GCA-MGT-15-01392

☐ No - No impact (Justification required):

Is a stop work required prevent the condition from recurring in the supplier's production line? ☐ Yes ☒ No

Is a stop shipment required to prevent the condition from affecting undelivered items / services? ☐ Yes ☒ No

Restriction(s): No future award of purchase orders or subcontracts will be made until the deficiencies have been corrected, verified, and completion of an implementation audit.

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsqu@bechtel.com by October 29, 2015. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:



Supplier Corrective Action Report

CCN: 287733

Attachment 1

(b)(6) 7/18/16

Date: July 6, 2015

Document No.: 24590-WTP-SCAR-QA-15-043

Rev: 0

Title: (b)(4) Quality Assurance Program Does Not Meet NQA-1-1989 Basic Plus Supplements

Supplier Response Direction (continued)

- ☒ Cause analysis
- ☒ Extent of condition
- ☒ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsq@bechtel.com.

Corrective Action Verification

The Supplier responded to the SCAR on 9/28/2015 as documented in CCN 282866. In the response, the Supplier disagreed with the adverse condition documented in the SCAR. BNI WTP Supplier Qualification rejected the response on 1/7/2016 via CCN 285613. However, it was subsequently learned that all work under the Supplier's only PO, (b)(4) Fluidic Devices - JPP'S (N091) (VWLR), had been completed, shipped, and accepted prior to issuance of the SCAR. As a result, concurrence was obtained from the Manager of Procurement & Subcontracts and Supplier Qualification Supervisor with the removal of (b)(4) from the WTP ESL (See CCN 286965). Due to the fact that the Supplier has no open POs and is being removed from the BNI WTP ESL, SCAR #245900-WTP-SCAR-QA-15-043 is being administratively closed. NOTE: Should the WTP Project decide to utilize the Supplier in the future, a new QA manual review and facility audit (with Satisfactory results) will be required for the Supplier to be placed on the BNI WTP ESL prior to award of a new contract. (AKW, 7/5/2016)

Supplier Corrective Action Report Closure

Concurrence by:	NA	NA	NA
	Print/Type Name	Title	Signature
Verified by:	(b)(6)	Sr. Quality Specialist	(b)(6)
		Title	Date
Approved by:		Quality Assessment Manager	6/17/2016
	Print/Type Name	Title	Signature
			Date

Revision History:

Revision	Reason for Revision
0	Initial issue.



R11795188

GEN-287747

Attachment 3

(b)(6) 6/13/16

Supplier Corrective Action Report

Date: January 19, 2016

Document No.: 24590-WTP-SCAR-QA-15-041

Rev: 0

Title: (b)(4) Equipment Calibration Certifications Not In Tolerance

Requirements/Referenced Documents		ISSUED BY RPP-WTP PDC	
<p>(b)(4) Procedure, QPM 11.0, <i>Control of Inspection, Measuring, and Test Equipment</i>, Revision 005, dated October 30, 2014, Section 4.2.1.</p> <p>...The calibration certificates shall be reviewed and accepted. Evidence of who reviewed each certificate shall be maintained.</p> <p>Corresponding NQA-1 Requirement: Requirement 12, Control of Measuring and Test Equipment</p> <p>WTP Source Document Number: 24590-WTP-AR-QA-15-020</p>			
Description of Adverse Condition			
<p>Review of three (b)(4) certifications for equipment found to be out-of-tolerance.</p> <ol style="list-style-type: none">1. (b)(4) TCNX1059P, Data Points were found to be out-of-tolerance2. (b)(4) TCNX1602, Data Points were found to be out-of-tolerance3. (b)(4) TCNX1309, Data Points were found to be out-of-tolerance			
Identified by:	(b)(6)	Title: Senior Quality Assurance Engineer/ATL	Date: 8/30/2015
Validated by:	(b)(6)	Title: Senior Quality Assurance Engineer/ATL	Date: 8/30/2015
Adverse Condition Evaluation			
<p>Classification: <input checked="" type="checkbox"/> Non-significant? <input type="checkbox"/> Significant</p> <p>Impact evaluation:</p> <p>Does the adverse condition impact items / services already received by the WTP Project?</p> <p><input type="checkbox"/> Yes – Addressed in WTP-CR / NCR / CDR:</p> <p><input checked="" type="checkbox"/> No – No impact (Justification required): The deficiency did not affect BNI WTP hardware.</p> <p>Is a stop work required prevent the condition from recurring in the supplier's production line? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Is a stop shipment required to prevent the condition from affecting undelivered items / services? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Restriction(s): None</p>			
Supplier Response Direction			
<p>Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsq@bechtel.com by November 24, 2015. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:</p>			



Supplier Corrective Action Report

GCN: 287747

(b)(6)

Attachment 3
6/13/16

Date: January 19, 2016

Document No.: 24590-WTP-SCAR-QA-15-041

Rev: 0

Title: (b)(4) Equipment Calibration Certifications Not In Tolerance

- ☐ Cause analysis
- ☒ Extent of condition
- ☒ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsqu@bechtel.com.



Supplier Corrective Action Report

CCN-287747

Attachment 3

(b)(6)

6/13/16

Date: January 18, 2016

Document No.: 24590-WTP-SCAR-QA-16-041

Rev: 0

Title: (b)(4) Equipment Calibration Certifications Not in Tolerance

Corrective Action Verification

Supplier corrective action plan received: (See CCN 284909)

The Supplier's response was received via email.

Supplier corrective action plan verified acceptable: (See CCN 287747)

The Supplier corrective action plan was documented in internal corrective action document CAR 3598 and associated CAR 3599 which was documented and sent to (b)(4) sub-tier supplier (b)(4) for corrective action. A cause evaluation was not required. The extent of condition was limited to the three pieces of M&TE identified in this SCAR and stated in the CAR document. Action to prevent recurrence was taken by the sub-tier supplier as required. The actions taken by the sub-tier supplier were documented in (b)(4) CAR QA-01, closed August 27, 2015.

Supplier corrective actions completed: (See CCN 287747 and 286959)

The Supplier corrective action plan was documented in internal corrective action documents CAR 3598, closed October 28, 2015 and associated CAR 3599, closed January 11, 2016. The calibration certificates were updated as necessary and one piece of M&TE was re-calibrated to ensure it was in tolerance. There were no impacts to any measurements made with the M&TE.

Supplier corrective actions verified complete and SCAR closed (See 287747)

Based on the documents listed for verification of this SCAR, the corrective actions are adequate to close the SCAR.

Supplier Corrective Action Report Closure Approval

Concurrence by:	(b)(6)	Sr. QA Engineer	5/3/2016
		Title	Date
Verified by:		Sr. QA Engineer	5/3/2016
		Title	Date
Approved by:		Quality Assessment Manager	6/13/16
		Title	Date

Revision History:

Revision	Reason for Revision
0	Initial Issue.



R11795187

ECN: 287747

Attachment 2

(b)(6) 6/13/16

Supplier Corrective Action Report

Date: June 25, 2015

Document No.: 24590-WTP-SCAR-QA-15-032

Rev: 0

Title: (b)(4) CGD Survey Issues

ISSUED BY
RPP-WTP PDC

Requirements/Referenced Documents

Requirement(s):

(b)(4) Procedure QPM 6.1, Section 4.14. Commercial Grade Nuclear Suppliers (Category D) states that "A Commercial Grade Survey will address the supplier's ability to control critical characteristics of the associated Dedicated Parts Evaluation (DPE)..."

Corresponding NQA-1 Requirement: Commercial Grade Dedication, Element 7, Control of Purchased Items and Services

WTP Source Document Number: Supplier Audit #24590-WTP-AR-QA-15-003

Description of Adverse Condition

Contrary to the requirement: (b)(4) Surveillance Report 12-52, dated 10/30/2012 and Commercial Grade Items/Service Checklist (b)(4) 14-009 for Commercial Grade Survey performed May 20-22, 2014 identify some areas that could potentially affect the critical characteristics of the items being manufactured at the (b)(4) Plant located in (b)(4). The following areas were not clear:

- Surveillance Report 12-52, Section: Areas for Improvement. The following issue was discussed: "At the Final Assembly work station it was identified that numerous, different Version/Build labels are commingling. This provides the real possibility of incorrect labels being affixed to boards. When mentioned, Quality Engineering acknowledged that boards had indeed already been improperly labeled and that process improvement efforts are under way."

The commingling of boards was written up as an "Area for Improvement". The explanation in the report was unclear. Interview with the surveillance team member indicated that this was not a final inspection area and had been documented in a CAR by the (b)(4) plant personnel.

- Survey Report (b)(4) 14-009: Finding 2 (CAR#2590) (b)(4) received a notification dated 4/25/14 from (b)(4) involving an out of tolerance condition for (b)(4) DC Voltage and Current Calibrator 04-ICC-0074. No evidence was provided that a nonconformance was issued, an evaluation was conducted or that corrective actions were later taken. The Corrective Action corrects the lack of notification when M&TE is about to go out of calibration, but did not address the fact that personnel did not issue a non-conformance when a piece of out-of-calibration test equipment was identified. The resolution in the reports was not clear.

- Survey Report (b)(4) 14-009: Finding 3(CAR#2591): "Swapped Oven Controller. Swapped out oven controller calibration stickers remained and didn't get attached to the new oven. Bar codes mismatched on another controller. Corrective Actions: Developed a procedure for equipment tracking in (b)(4) and consider the activities to perform when a device is swapped, or replaced. Trained affected personnel. Although the corrective actions were appropriate, this demonstrated manufacturing with equipment out of calibration that could affect functionality and accuracy of PC Boards." The resolution in the reports was not clear.

Identified by: (b)(6) Title: Procurement Engineer Date: June 25, 2015

Validated by: (b)(6) Title: Sr. QA Engineer Date: June 25, 2015

Adverse Condition Evaluation



Supplier Corrective Action Report

ECN: 287747

Attachment 2

(b)(6)

6/13/16

Date: June 25, 2015

Document No.: 24590-WTP-SCAR-QA-15-032

Rev: 0

Title: (b)(4) CGD Survey Issues

Classification: ☒ Non-significant? ☐ Significant

Impact evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☐ Yes – Addressed in WTP-CR / NCR / CDR:

☒ No – No impact (Justification required): No items shipped to the WTP.

Is a stop work required prevent the condition from recurring in the supplier's production line? ☐ Yes ☒ No

Is a stop shipment required to prevent the condition from affecting undelivered items / services? ☐ Yes ☒ No

Restriction(s):

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsqu@bechtel.com by August 31, 2015. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:

☒ Cause analysis

☒ Extent of condition

☒ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsqu@bechtel.com.



Supplier Corrective Action Report

GCN: 287747

Attachment 2

(b)(6) 6/13/16

Date: June 25, 2015

Document No.: 24590-WTP-SCAR-QA-15-032

Rev: 0

Title: (b)(4)

CGD Survey Issues

Corrective Action Verification

Supplier corrective action plan received: (See CCN 282861)

The Supplier's response was received via email.

Supplier corrective action plan verified acceptable: (See CCN 282842)

The Supplier corrective action plan was documented in internal corrective action document CAR 3604. The cause was lack of clarity in how the 2012 Surveillance report area for improvements were described and no tracking of the corrective actions. The extent of condition was limited to the (b)(4) CG Survey Report and one follow-up surveillance. Action to prevent recurrence included major Supplier corrective action program changes as documented in procedure GNP-CA-16-00, *Corrective Action Program (CAP) Procedure*, revision 00, March 1, 2015 which is after the subject CG Survey and surveillance was performed.

Supplier corrective actions completed: (See CCN 286949)

The Supplier corrective action plan was documented in internal corrective action documents CAR 3604, closed October 15, 2015. The surveillance report, CG Survey and associated were clarified in CAR 3604 and the (b)(4) corrective action documents. There were no impacts to any BNI WTP work.

Supplier corrective actions verified complete and SCAR closed (See 287747 & 286960)

Based on the documents listed for verification of this SCAR, the corrective actions are adequate to close the SCAR. CCN 286960 provides the SME acceptance of the actions completed to close the SCAR.

Supplier Corrective Action Report Closure Approval

Concurrence by:	(b)(6)	Procurement Engineer	05/03/2016
Verified by:		Sr. QA Engineer	5/3/2016
Approved by:		Quality Assessment Manager	6/13/16
		Title	Date

Revision History:

Revision	Reason for Revision
0	Initial issue.



R11795186

GCN: 287747-

Attachment 1

(b)(6)

6/13/16

Supplier Corrective Action Report

Date: June 25, 2015

Document No.: 24590-WTP-SCAR-QA-15-031

Rev: 0

Title: (b)(4) Training and Remote Staff Issues

Requirements/Referenced Documents

ISSUED BY
RPP-WTP-PDC

Requirement(s):

QPM 18.0, section 4.2.2, require in part that "Each responsible Department Supervisor shall ensure that their employees are appropriately trained and competent to perform functions as described in their specific job description. A Job Qualification Record (form 0025), referencing the job description shall be signed by the responsible department Supervisor to certify that the employee is competent to perform their specific job duties"

Corresponding NQA-1 Requirement: Element 2, QA Program

WTP Source Document Number: Supplier Audit #24590-WTP-AR-QA-15-003

Description of Adverse Condition

Four Engineering staff training records did not have Job Qualification Record signed by their supervisor. The following individual files were missing the Job Qualification Record Form (b)(4), (b)(6)

(b)(4), (b)(6)

(b)(4), (b)(6)

One individual located in used the SAPHIRE software for a WTP Calculation (SIL). He did not have training on use of SAPHIRE software documented per procedures.

(b)(4)

Identified by: (b)(6)

Title: Sr. QA Engineer

Date: June 25, 2015

Validated by:

Title: Sr. QA Engineer

Date: June 25, 2015

Adverse Condition Evaluation

Classification: ☒ Non-significant? ☐ Significant

Impact evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☐ Yes - Addressed in WTP-CR / NCR / CDR:

☒ No - No impact (Justification required): No items shipped to the WTP.

Is a stop work required prevent the condition from recurring in the supplier's production line? ☐ Yes ☒ No

Is a stop shipment required to prevent the condition from affecting undelivered items / services? ☐ Yes ☒ No

Restriction(s):

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsqu@bechtel.com by August 31, 2015. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:



Supplier Corrective Action Report

CCN: 287747

Attachment 1

(b)(6) 6/13/16

Date: June 25, 2015

Document No.: 24590-WTP-SCAR-QA-15-031

Rev: 0

Title: (b)(4) Training and Remote Staff Issues

- ☒ Cause analysis
- ☒ Extent of condition
- ☒ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsq@bechtel.com.



Supplier Corrective Action Report

CCN: 287747

Attachment 1

(b)(6) 6/13/16

Date: June 25, 2015

Document No.: 24590-WTP-SCAR-QA-15-031

Rev: 0

(b)(4)

Title: [Redacted] Training and Remote Staff Issues

Corrective Action Verification

Supplier corrective action plan received: (See CCN 282861)

The Supplier's response was received via email.

Supplier corrective action plan verified acceptable: (See CCN 282842)

The Supplier corrective action plan was documented in internal corrective action document CAR 3603. The cause was due to multiple project managers and inattention to detail. The extent of condition was limited to four Job Qualification Records not being filed in the individual training files. The remote person had been assigned a task specific activity that did not require the full scope of training as would a regular full-time employee. He no longer works for the Supplier. Action to prevent recurrence included refresher training for project managers and staff.

Supplier corrective actions completed: (See CCN 286949)

The Supplier corrective action plan was documented in internal corrective action documents CAR 3603, closed October 13, 2015. The Job Qualification Records were approved and refresher training documented on "Training Attendance" records dated August 19, 2015 and September 9, 2015. There were no impacts to any BNI WTP work.

Supplier corrective actions verified complete and SCAR closed (See 287747)

Based on the documents listed for verification of this SCAR, the corrective actions are adequate to close the SCAR.

Supplier Corrective Action Report Closure Approval

Concurrence by:	(b)(6)	Sr. QA Engineer	5/3/2016
		Title	Date
Verified by:		Sr. QA Engineer	5/3/2016
		Title	Date
Approved by:		Quality Assessment Manager	6/13/16
		Title	Date

Revision History:

Revision	Reason for Revision
0	Initial issue.



Supplier Corrective Action Report

CCN: 288674

Attachment 2

(b)(6) 6/13/16

Date: June 25, 2015 Document No.: 24590-WTP-SCAR-QA-15-030 Rev: 0
 Title: (b)(4) Software Procedures PPM 2.02 & PPM 7.04 Issues Regarding Controls for Design Analysis Software

Requirements/Referenced Documents	ISSUED BY
Requirement(s): (b)(4) procedure QPM 2.2, Section 4.3.2 requires in part that "...procedure detail to be commensurate with the level of control necessary to ensure compliance with the requirements of the Triconex Quality System." Corresponding NQA-1 Requirement: Subpart 2.7 and Element 5, Instructions, Procedures and Drawings WTP Source Document Number: Supplier Audit #24590-WTP-AR-QA-15-003	RPP-WTP PDC
Description of Adverse Condition This following sentence contained in PPM 2.02 is not NQA-1 compliant if this sentence is implying that computer programs approved by Industry or the U.S. Nuclear Regulatory Commission (NRC) can be used at (b)(4) without any Verification/Validation or Configuration/Change Management. PPM 2.02, revision 003, section 4.4.2.1 states "Pre-Verified programs may be industry/NRC approved programs or software tools developed or verified by (b)(4) in accordance with PPM 7.04." The following sentence states "Verification of computer programs shall be documented per the guidance in PPM 7.04." However, the scope of PPM 7.04 is Software Tool Development. There are no directions regarding which sections of PPM 7.04 shall be followed for software such as SAPHIRE which is acquired or (b)(4) which is developed by the R&D group and used by the Supplier for a SIL calculation. PPM 2.02 or PPM 7.04 needs to clearly state the required sections to be followed. The purpose of the statements in Section 4.4.2.2 of PPM 2.02: statement (1) and (2) are confusing as stated because these are the requirements for Pre-verified software.	
Identified by: (b)(6)	Title: Software QA Engineer Date: June 25, 2015
Validated by: (b)(6)	Title: Sr. QA Engineer Date: June 25, 2015
Adverse Condition Evaluation Classification: <input checked="" type="checkbox"/> Non-significant? <input type="checkbox"/> Significant Impact evaluation: Does the adverse condition impact items / services already received by the WTP Project? <input type="checkbox"/> Yes - Addressed in WTP-CR / NCR / CDR: <input checked="" type="checkbox"/> No - No impact (Justification required): No items have been shipped to the WTP. Is a stop work required prevent the condition from recurring in the supplier's production line? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is a stop shipment required to prevent the condition from affecting undelivered items / services? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Restriction(s):	



Supplier Corrective Action Report

CGN-288694

Attachment 2

(b)(6) 6/13/16

Date: June 25, 2015

Document No.: 24590-WTP-SCAR-QA-15-030

Rev: 0

Title: (b)(4) Software Procedures PPM 2.02 & PPM 7.04 Issues Regarding Controls for Design Analysis Software

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsgu@bechtel.com by August 31, 2015. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:

- ☒ Cause analysis
- ☒ Extent of condition
- ☒ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsgu@bechtel.com.



Supplier Corrective Action Report

CCN: 288674

Attachment 2

(b)(6) 6/13/16

Date: June 25, 2015

Document No.: 24590-WTP-SCAR-QA-15-030

Rev: 0

Title: (b)(4) Software Procedures PPM 2.02 & PPM 7.04 Issues Regarding Controls for Design Analysis Software

Corrective Action Verification			
Supplier corrective action plan received (See CCN)			
The Supplier's response was received letter.			
Supplier corrective action plan verified acceptable (See CCN 282842)			
The Supplier corrective action plan was documented in internal corrective action document CAR 3602. The corrective actions included revising the affected procedures, replacement of a procedure and updates to the project management plan.			
Supplier corrective actions completed (See CCN 286949)			
The Supplier corrective action plan was documented in internal corrective action documents CAR 3602, closed November 12, 2015. The Supplier revised procedure PPM 2.02 and the project planning procedure PPM 1.0 to address the planning issues such as use of design analysis software. Procedure PPM 7.04 was replaced by GNP-EN-03-01. Surveillance #24590-WTP-SUV-QA-16-011 (CCN 287746) added a new restriction regarding performance of acceptance testing per NQA-1 2000, Subpart 2.7, Paragraph 404.			
Supplier corrective actions verified complete and SCAR closed (See CCN 288674 and 287746)			
Surveillance #24590-WTP-SUV-QA-16-011 (CCN 287746) was performed, in part, to verify actions to close this SCAR were adequate and complete. Based on the documents listed for verification of this SCAR, the corrective actions are adequate to close the SCAR. The Software QA Engineer was a team member on the surveillance.			
Supplier Corrective Action Report Closure Approval			
Concurrence by:	(b)(6)	Software QA Engineer Title	5-17-2016 Date
Verified by:		Sr. QA Engineer Title	5/17/2016 Date
Approved by:		Quality Assessment Manager Title	6/13/16 Date

Revision History:

Revision	Reason for Revision
0	Initial issue.



Supplier Corrective Action Report

R11795268

CEN-288674

Attachment 1

(b)(6) 6/13/16

Date: June 25, 2015

Document No.: 24590-WTP-SCAR-QA-15-029

Rev: 0

Title: (b)(4)

Engineering Reviews and Personnel

ISSUED BY

RFP-WTP-PDC

Requirements/Referenced Documents

Requirement(s):

- 1) PPM 2.0, section 4.4.9, requires for nuclear projects, all hardware design documents will be reviewed by a Project Independent Reviewer (IRE) to verify the technical adequacy and accuracy of the design (design verification) and the design documents requiring Design Review Checklist (DRC) are listed on DRC Requirement Guideline, Appendix 2"

PPM 3.0, section 4.4, requires "If a customer review is required, their review shall also be documented on the DRR."
- 2) BNI document 24590-WTP-3PS-JD03-T0002, *Engineering Specification for Programmable Protection System*, revision 4, Section 17.2.1 requires "Qualifications of technical personnel and project management assigned to this project are required to be reviewed by WTP prior to being assigned to the project."

Corresponding NQA-1 Requirement: Element 3, Design Control

WTP Source Document Number: Supplier Audit #24590-WTP-AR-QA-15-003

Description of Adverse Condition

- 1) The Document Review Comment Sheet (DRCS) for 1052163-AMR-1-907, Enclosure Electrical Power Consumption (EEPC), was not performed for revision C.

The Document Review Record (DRR) for 1052162-AMR-1-050, 100,101,102,105,201,301, and 355, Design Drawings, did not include Revision A thru D DRCS documents. The DRR begins at Rev. E and ends at Rev. F.

Prior DRCS comments are being excluded from the DRR package. Example: From excluded DRCS for AMR drawings Rev. C item 2. BNI Comment regarding the requirement for "switched ungrounded voltage <50 V is violet not light blue." The DRCS response from the supplier is "Agreed, Changed: All switched ungrounded voltage <50 V to Violet not Light Blue." However, latest revision of AMR documents shows this problem has re-occurred.

The following is a partial list of documents returned by BNI Status Code 3.

(b)(4) 1052163-LAW-1-833, Rev. 00B, Evidence of SIL Capability for Low Activity Waste (LAW) Safety System Logic Solver.

(b)(4) 1052163-AMR-1-050, Rev. 00E, Bill of Material Cabinet AMR-ENCL-00003.

(b)(4) 1052163-AMR-1-201, Rev. 00D, Power Wiring 120 VAC Distribution Cabinet AMR-ENCL-00003.

(b)(4) 1052163-AMR-1-355, Rev. 00D, Elementary Drawing AC Power Wiring Cabinet AMR-ENCL-00003.

(b)(4) 1052163-AMR-1-908 Revision D, December 2014, Enclosure Heat Load Analysis (EHLA) for Anhydrous Ammonia Reagent (AMR) Safety System Logic Solver.

(b)(4) 1052163-AMR-804-1, Project Traceability Matrix (PTM) for Programmable Protection System 24590-WTP-3PS-JD03-T0002, Rev. 3.

(b)(4) (b)(4) document number 1276572-012T, (b)(4) Document (b)(4) TECH-03, revision 16, Commercial Grade Dedication Procedure



Supplier Corrective Action Report

GCN-288674

Attachment 1

(b)(6) 6/13/16

Date: June 25, 2015

Document No.: 24590-WTP-SCAR-QA-15-029

Rev: 0

Title: (b)(4)

Engineering Reviews and Personnel

(b)(4),(b)(6)

- 2) The reviewer (b)(4) for 1052163-AMR-1-833, *Evidence of SIL Capability*, revision A, was not evaluated by BNI WTP. The supplier did not provide personnel qualification documents to WTP for review prior to the reviewer being assigned.

Identified by: (b)(6) Title: Engineer Date: June 25, 2015

Validated by: (b)(6) Title: Sr. QA Engineer Date: June 25, 2015

Adverse Condition Evaluation

Classification: ☐ Non-significant? ☒ Significant

Impact evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☐ Yes – Addressed in WTP-CR / NCR / CDR:

☒ No – No impact (Justification required): No items shipped to WTP and the Supplier has also identified this issue as significant in their corrective action program, CAR #2298 was in the screening process at the time of the audit.

Is a stop work required prevent the condition from recurring in the supplier's production line? ☐ Yes ☒ No

Is a stop shipment required to prevent the condition from affecting undelivered items / services? ☐ Yes ☒ No

Restriction(s):

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsgu@bechtel.com by August 31, 2015. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:

- ☒ Cause analysis
- ☒ Extent of condition
- ☒ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsgu@bechtel.com.



Supplier Corrective Action Report

CCN-288674
Attachment 1
(b)(6) 6/13/16

Date: June 25, 2015

Document No.: 24590-WTP-SCAR-QA-15-029

Rev: 0

Title: (b)(4)

Engineering Reviews and Personnel

Corrective Action Verification

Supplier corrective action plan received (See CCN 282861)

The Supplier's response was received letter.

Supplier corrective action plan verified acceptable (See CCN 282842)

The Supplier corrective action plan was documented in internal corrective action document CAR 3601. The cause was generally global in nature and attributed to personnel performance and lack of attention to detail. The extent of condition as noted in CAR 3601, Apparent Cause Evaluation, Section 3.0, indicates the extent applies to the entire BNI PPJ order. Action to prevent recurrence included communication of BNI requirements to staff; meetings to discuss attention to detail; use of the document review forms and process; and a "Lessons Learned" meeting.

Supplier corrective actions completed (See CCN 286949)

The Supplier corrective action plan was documented in internal corrective action documents CAR 3601, closed October 28, 2015. The Supplier held and documented various meetings, including a lessons learned meeting.

The closure of this SCAR was initially rejected by the Responsible Engineer (See CCN 286951 and 287264) due to direction, which did not meet the human factors requirements of BNI Specification #24590-WTP-3PS-JD03-T0002, *Engineering Specification for Programmable Protection System* and IEEE #1023-1988, *IEEE Guide for Applications of Human Factors Engineering to Systems, Equipment, and Facilities of Nuclear Power Generating Stations*, to ensure engineering drawings reflect the needs of all users. Information which contradicted these requirements was given by the Supplier to engineering staff in a "Lessons Learned" meeting. The Supplier clarified and corrected the information presented to staff during Surveillance #24590-WTP-SUV-QA-16-011 and the surveillance team obtained documentation of engineering staff meeting attendance dated May 11, 2106. (See CCN 289174).

There were no impacts to any BNI WTP work.

Supplier corrective actions verified complete and SCAR closed (See CCN 288674 and 289175)

Surveillance #24590-WTP-SUV-QA-16-011 was performed, in part, to verify actions to close this SCAR were adequate and complete. Based on the documents listed for verification of this SCAR, the corrective actions are adequate to close the SCAR. CCN 289175 provides the SME acceptance of the actions completed to close the SCAR.

Supplier Corrective Action Report Closure Approval

Concurrence by:	(b)(6)	Responsible Engineer	5/12/16
		Title	Date
Verified by:		Sr. QA Engineer	5/13/2016
		Title	Date
Approved by:		Quality Assessment Manager	6/13/16
		Title	Date



Supplier Corrective Action Report

~~CCN: 288074~~

~~Attachment 1~~

(b)(6) 6/13/16

Date: June 25, 2015 Document No.: 24590-WTP-SCAR-QA-15-029 Rev: 0

Title: (b)(4) Engineering Reviews and Personnel

Revision History:

Revision	Reason for Revision
0	Initial issue.



R11795009

CCN-289849

Attachment 1

(b)(6) 6/9/16

Supplier Corrective Action Report

ISSUED BY

RPP-WTP PDC

Date: June 8, 2016

Document No.: 24590-WTP-SCAR-QA-15-027

Rev: 0

Title: (b)(4) failed to follow their procedure in the creation of CGD Plans CGD121

Description of Adverse Condition

As a result of the DOE/ORP audit (CCN 274980), (b)(4) failed to follow their procedure in the creation of CGD Plan, CGD121, CGD dedication plan for BX2 Packing Gland Adjuster. The following are the noted deficiencies:

1. The CGD plan developed by (b)(4) did not follow the format of and include information required by the BNI-accepted procedure for CGD plan development.

a) NQP7-1-4, Paragraph 7.3 stated that the heading information shall sustain traceability of the CGD plan to a distinct item or service. Several items were listed as required to sustain that traceability. The CGD plan heading did not contain the name of the customer, contract/purchase order, (b)(4) sales order number, the items' recognized identification/part numbers, and a description of the items as required.

b) Paragraph 7.4, part A, "Identification," did not list all of required entries required. Seven of the 13 required entries were not listed:

- i. Quantity of each item.
- ii. Applicable (b)(4) customer name and supplier nomenclature, including drawing number with revision/date, part number.
- iii. Anticipated service and operating conditions/environment.
- iv. Design features.
- v. A statement whether the item can or cannot be ordered from a catalogue.
- vi. Suppliers of the items including the suppliers' approved supplier list address.
- vii. Relevant commercial grade survey number that was identified as appropriate for the CGD process being documented.

2) Paragraph 7.5, Part B (6), stated in part "Identify the credible failure mechanism(s) associated with the item's functions and enter the CFMA results." The critical failure modes analysis (CFMA) discussion did not address use of the wrong packing material as a potential failure. The purchase order specifically required the use of a graphite gasket. Because the type of gasket material for this application was not analyzed as a potential failure mode, the design characteristic(s) was not established and a CCFA was not identified in either Table D or in the material code sheet for the packing material.

Size was discussed as a credible failure mechanism; however, the plan stated in paragraph 6.1 that dimensions and component mating will be proved during shell testing. Hydrostatic testing will only demonstrate that the packing can be tightened to hold pressure. Experience has shown that improper sized packing can result in valve stem binding and galling, which can ultimately result in valve stem leakage. Since the (b)(4) commercial grade survey of (b)(4) (the packing material subtier supplier) discussed how the company manages physical dimensions, the dedication plan could have referenced the critical process for managing packing size in the commercial grade survey as a way to address a credible packing failure mechanism (packing size).

3) Paragraph 7.7, Part D - CCFA

i. The CGD plan included a table required by the procedure including specific information to be included in specific columns. The layout of the columns referenced in the procedure was not the same as those included in the table in the CGD plan.

ii. Table Critical Characteristic CC-1, "Identification," stated that acceptance will be by Method 1 and be conducted during the receiving inspection.

a. Criterion for this inspection omitted the packing gland.

b. Although the criteria column states that the adjuster shall have the material identified on it, it does not reference the acceptance criteria (i.e., the material that the adjuster should be). For other items being dedicated, the material control sheet



Supplier Corrective Action Report

CCN: 289849-
Attachment 1
(b)(6) 6/9/16

Date: June 8, 2016

Document No.: 24590-WTP-SCAR-QA-15-027

Rev: 0

Title: (b)(4) failed to follow their procedure in the creation of CGD Plans CGD121

(MCS) was referenced in the CGD plan as the document to provide acceptance criteria. In this case, the markings section of the MCS listed the appropriate acceptance criteria for the adjuster. However, the MCS was not referenced in the CGD plan.

c. The commercial grade survey for the labeling critical process, discussed how each container of packing is labeled to link the material to the customer requirements (purchase order). The label for the packing was not evaluated during the receipt inspection.

4). Table CC.2, "Material Verification," stated that acceptance will be by Methods 1 and 2.

a. Some inspection criteria were provided for Method 1; however, acceptance criteria for critical processes to be evaluated were not provided for Method 2.

b. The test/inspection for the method lists positive material identification/external testing; however, the use of an external testing activity and name of the subtier vendor that would perform it is not referenced in the acceptance criteria for the packing, packing gland, or adjuster.

c. Acceptance criteria for the packing CCFA stated that a certificate of conformance (COC) from the supplier shall verify compliance to the applicable MCS. The MCS for packing does not list a material section; however, in the documentation section it stated that a COC stating the component complied with the (b)(4) material code, (b)(4) drawing, and a statement the material supplied was manufactured, sampled, tested, and inspected in accordance with any applicable ASTM International (ASTM) standards. The appropriate ASTM standard for this set of packing and the acceptance criteria was not listed.

5). Table CC.3, "Performance," stated the test/inspection method will be by (b)(4) Manufacturing. (b)(4)

a. Test/inspection method did not list the specific type of inspection required (i.e., visual, dimensional, marking, etc.). In this instance the test/inspection method should have been specified as a hydrostatic test.

b. The criteria section specified performance of a hydrostatic test but did not specify that the test be performed in accordance with the Inspection and Test Plan for the assembled valve. The criterion did not reference hydrostatic test pressure, the test fluid, or the hold time. It should be noted that while the above information and acceptance criteria was not listed in the CGD plan as required, this information was in 10212, Inspection and Test Plan, Rev. 3. However, the Inspection and Test Plan was not referenced in the table.

6). NQP7-1-4 stated that the documentation for the acceptance criteria column should ...identify the specific results associated with the test/inspection process consistent with the verification method selected. Include the tolerance, limits or range of readings considered acceptable. For example, a length may be expressed as 1" +/- 0.005", or hardness as RC45-50. Insert a drawing number, test name, specification, standard or test procedure, test jug or fixture to provide a frame of reference for acceptance. Contrary to the procedure requirement:

a. The criteria section for this CGD plan did not list the acceptance criteria as required.

b. The MCS for the cast adjuster included heat treat (design characteristics) and NDE (inspection requirement). CCFA were not identified to address these MCS expectations.

7). Paragraph 7.8, Part E, "Commercial Grade Survey Verification," did not list the survey number, the supplier, the expiration date for the survey, or list the CCFA/critical processes included as part of the survey as required. In addition, a statement was not made in the plan that the scope of the current CGD plan was within the scope of the survey performed and that all CCFA are valid under the same survey as required.

(b)(4) issued two purchase orders and performed the CGD of the three items covered by the purchase orders prior to the CGD plan and CGD survey procedure being submitted to BNI for acceptance as required.

8). On May 15, 2014, and May 21, 2014, (b)(4) issued purchase orders to (b)(4) respectively. The CGD plan that was to be used to dedicate the three components, an adjuster, packing gland assembly, and packing, covered by the two purchase orders was issued Rev. 0 by (b)(4) on May 22, 2014.



Supplier Corrective Action Report

CCN: 289849

Attachment 1

(b)(6) 6/9/16

Date: June 8, 2016

Document No.: 24590-WTP-SCAR-QA-15-027

Rev: 0

Title: (b)(4) failed to follow their procedure in the creation of CGD Plans CGD121

The CGD plan was returned to (b)(4) with comments on August 4, 2014, as Code Status 3 (revise and resubmit; work may not proceed). The CGD plan had not been approved prior these comments and had not been authorized by BNI to be used to dedicate the components.

In addition, (b)(4) is to provide an extent of condition to determine that all dedication plans submitted to the WTP meet all of the requirements of the (b)(4) dedication procedure.

Identified by:	(b)(6)	Title: Procurement Engineering Manager	Date: 5/29/15
Validated by:	(b)(6)	Title: SQn Lead	Date: 6/1/15

Requirements/Referenced Documents

Requirement(s):

- 1) (b)(4) procedure NQP7-1-4, (b)(4) CGD Procedure, Rev. 5, dated August 3, 2012.
- 2) BNI Purchase Order (b)(4)

WTP Source Document Number: DOE/ORP Performance Audit, Finding U-14-QAD-RPPWTP-001-F02 (CCN 274980)

Adverse Condition Evaluation

Classification: Is the adverse condition determined to be significant? ☒ Yes ☐ No

Stop work: Is a stop work restriction required at this time to prevent the condition from recurring in the production line? ☐ Yes ☒ No

Stop shipment: Is a stop shipment restriction required to prevent the condition from affecting undelivered items or services? ☐ Yes ☒ No

Items/services received: Does the adverse condition impact items/services already received by the WTP Project?

☐ Yes - Addressed in PIER/NCR/CDR number:

☒ No - No impact (Justification required): No valves under this purchase order have been shipped to the WTP.

Supplier Response Guidance

The Supplier is requested to respond to WTP no later than July 15, 2015. The initial response must include a corrective action plan and the planned completion date of corrective actions or documentation to support completed corrective actions. The supplier corrective action must include the following:

- ☒ Supplier's corrective action document number
- ☒ Extent of condition (for significant conditions only)
- ☒ Cause Analysis (for significant conditions only)



Supplier Corrective Action Report

CCN-289849
Attachment 1
(b)(6) 6/9/16

Date: June 8, 2016 Document No.: 24590-WTP-SCAR-QA-15-027 Rev: 0

Title: (b)(4) failed to follow their procedure in the creation of CGD Plans CGD121

☒ Corrective Actions

Upon resolution of the adverse condition, the supplier is requested to provide a copy of their closed corrective action document and objective evidence to substantiate closure. Responses should be sent to wtpdc@bechtel.com with wtpsu@bechtel.com on copy. Note: All attachments should be PDF files.

Corrective Action Verification (For WTP use)

The Supplier's submitted resolution of the adverse condition (received May 26, 2016) included a revised CGD plan and procedure (see CCN 289179). The plan and procedure were reviewed by the SCAR initiator and were found to be acceptable (see CCN 289183). The Supplier did not provide documentation that they had performed a corresponding Extent of Condition or a Causal Analysis, as initially required (see above). However, the SCAR initiator and verifier decided that, given the Supplier's unique situation, these actions would no longer be necessary to close this SCAR and allow shipment. The Supplier is no longer performing Q-level work and will abandon its nuclear business altogether with shipment of the three completed WTP valves still in its possession, pending resolution of this SCAR. With the cessation of work, neither an Extent of Condition nor a Causal Analysis would serve any purpose to WTP. The accepted CGD plan and procedure are sufficient to close this SCAR.

Supplier Corrective Action Report Closure Approval

Concurrence by:	(b)(6)	Procurement Engineering Manager	6/8/2015
		Title	Date
Verified by:		Supplier Qualification Supervisor	6/8/16
		Title	Date
Approved by:		Quality Assessment SQ Manager mgr	6/8/16
		Title (b)(6)	Date

Revision History:

Revision	Date	Reason for Revision
0	June 8, 2016	Initial issue.



Supplier Corrective Action Report

CCN: 283990
Attachment 1

Date: November 23, 2015

Document No.: 24590-WTP-SCAR-QA-15-049

Rev:

Title: (b)(4)

RIM Testing Duration is not in Compliance with IEEE 382-1996 Requirements.

Requirements/Referenced Documents

Requirement(s):

- 1) 24590-WTP-3PS-FB01-T0001, *Engineering Specification for Structural Design Loads for Seismic Category III and IV Equipment and Tanks*, Rev 6, Appendix D, Section 1.1c, 1.2d, 2.1b, 3.1d, and 3.2d (as referenced in Section 4.3.5), states, "Seismic simulation test shall be in accordance with Sections 6 of Part III of IEEE 382."
- 2) Section 6.3 (c), Part III, of IEEE 382, states, "For actuator SSE qualification for line mounted application, perform a single frequency test by exposing the actuator to a series of single frequency sine-beat tests at the one-third octave interval test frequencies indicated on figure 6 (see IEEE Std 344-1987 for further definitions and detailed descriptions of test methods). The excitation at each frequency shall be in the form of a continuous series of sine beats of 12-15 oscillations per beat for the duration required. The successive beats shall be phased so that any superposition of response motion will be additive. At each test frequency the peak acceleration shall be the RIM value shown in figure 6. The duration of each test shall be 15 s minimum."
- 3) Section 7.6.2.3 of IEEE Std 344-1987 (IEEE 344), states, "Sine-Beat Test. A test at any frequency should consist of the application of a series of at least five sine beats with a sufficient pause between each so that no significant superposition of equipment response motion results. The sine beats consist of sinusoids at the frequency and amplitude of interest, as shown in Fig 2. Each sine beat should consist of a number of cycles of motion (usually 5 or 10) to produce a TRS acceleration in accordance with the criteria given in 7.6.2.1. The test frequencies of interest are those at the resonances of the equipment being tested and others as given in 7.6.2.1. The total test duration and the low-cycle fatigue potential at any frequency should be at least as given in 7.6.5."
- 4) Section 7.6.5, 2nd paragraph, of IEEE 344, states, "The duration of the strong motion portion of each test should at least be equal to the strong motion portion of the original time history used to obtain the RRS, with a minimum of 15 s. For multiple-frequency tests, the stationary part of the test defines the strong motion portion of one multiple-frequency waveform employed. For single-frequency tests, the duration is the sum of the individual durations of all tests at all different single frequencies (exclusive of the pause between beats). Note that the individual test duration at any single frequency should be sufficient to produce a TRS acceleration in accordance with the criteria of 7.6.2.1."

Trend Code: 19

Description of Adverse Condition

During "DOE-STD-1020-94 Independent Peer Review" of qualification report for (b)(4)

(b)(4) it was identified that, for Required Input Motion (RIM) testing of the "Low Pressure Switch" where a pause is applied between each beat to prevent superposition of response motion, (b)(4) does not comply with test duration requirement of IEEE Std 382-1996 (IEEE 382). Instead of excluding, (b)(4) included the pause between the beats in test duration calculation.

As noted in the "Requirements/Referenced Documents" section (above), the excitation at each frequency shall be in the form of a continuous series of sine beats of 12-15 oscillations per beat for the duration required. For RIM testing, (b)(4) utilizes sine-beats of 15 oscillations per beat. For single frequency tests, the duration is the sum of the individual durations of each beat, exclusive of the pause between beats. In other words, for a 16 Hz sine-beat test, without any pause between beats, the specimen shall be subjected to a minimum of 16 sine-beats of 15 oscillations per beat to meet the 15 seconds minimum duration requirement per the calculation below:

$$T \text{ per beat of 15 oscillation per beat} = (15 \text{ Oscillation} / 16\text{Hz}) = 0.9375 \text{ seconds}$$

$$\text{No of beats required to meet the 15 seconds minimum duration} = (15 \text{ seconds} / 0.9375 \text{ seconds}) = 16$$



Supplier Corrective Action Report

CCN: 283990
Attachment 1

Date: November 23, 2015

Document No.: 24590-WTP-SCAR-QA-15-049

Rev:

Title: (b)(4) RIM Testing Duration is not in Compliance with IEEE 382-1996 Requirements.

For a 16 Hz sine-beat test, with 0.2 second pause between beats, the specimen shall be tested for a minimum of 18 seconds (i.e. 18 sec. = (15 x 0.2 sec) + 15 sec) and the specimen be subjected to a minimum of 16 sine-beats of 15 oscillations per beat.

Direction to the Supplier

In addition to the direction provided in the "Supplier Response Direction" section (below), the Supplier shall perform an Extent of Condition evaluation to determine all WTP components where RIM testing was performed by the Supplier or where the Supplier has performed RIM testing for other customers where those customers have supplied equipment/components to the WTP.

Identified by:	(b)(6)	Title:	Vendor Seismic Qualification Support Lead	Date:	8/27/2015
Validated by:		Title:	SQn Supervisor	Date:	11/23/2015

Adverse Condition Evaluation

Classification: ☐ Non-significant? ☒ Significant

Impact Evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☒ Yes - Addressed in WTP-CR / NCR / CDR: 24590-WTP-GCA-MGT-15-02067

☐ No - No impact (Justification required):

Is a stop work required prevent the condition from recurring in the supplier's production line? ☐ Yes ☒ No

Is a stop shipment required to prevent the condition from affecting undelivered items / services? ☐ Yes ☒ No

Restriction(s): None

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsq@bechtel.com by January 5, 2016. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:

- ☒ Cause analysis
- ☒ Extent of condition
- ☒ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsq@bechtel.com.



Supplier Corrective Action Report

CCN: 283990
Attachment 1

Date: November 23, 2015 Document No.: 24590-WTP-SCAR-QA-15-049 Rev: _____

Title: (b)(4) RIM Testing Duration is not in Compliance with IEEE 382-1996 Requirements.

Corrective Action Verification

Supplier corrective action plan received (See CCN _____)

Supplier corrective action plan verified acceptable (See CCN _____)

Supplier corrective actions completed (See CCN _____)

Supplier corrective actions verified complete and SCAR closed (See CCN _____)

Supplier Corrective Action Report Closure

Concurrence by:	_____ <i>Print/Type Name</i>	_____ <i>Title</i>	_____ <i>Signature</i>	_____ <i>Date</i>
Verified by:	_____ <i>Print/Type Name</i>	_____ <i>Title</i>	_____ <i>Signature</i>	_____ <i>Date</i>
Approved by:	(b)(6) <i>Print/Type Name</i>	Quality Assessments Manager <i>Title</i>	_____ <i>Signature</i>	_____ <i>Date</i>

Revision History:

Revision	Reason for Revision
0	Initial issue.



Supplier Corrective Action Report

CCN: 291829
Attachment 2

Date: 8/30/16 Document No.: 24590-WTP-SCAR-QA-16-020 Rev: _____

Title: (b)(4) Long Term Storage Issues

Requirements/Referenced Documents

Requirement(s): (b)(4) NQA-1 Long Term Storage Requirements, Rev. 2.

Trend Codes: 2, 5, 8, 13, 16, 17,

WTP Source Document Number: 24590-WTP-SUV-QA-16-022 (CCN 291829)

Description of Adverse Condition

Numerous examples of deviations from the (b)(4) long term storage procedure (HPI-12-100) were observed during the 2016 BNI WTP suspension surveillance. Examples included:

- Missing marking/labeling on pipe, plate, and other items (b)(4) only).
- No caps on some openings, despite the 2016 inspection report indicating otherwise (b)(4) only).
- No evidence that the interior of a PJM vessel stored outside in (b)(4) was inspected, as required. The vessel is shrink-wrapped and the QC Manager indicated that it had not been recently uncovered (despite verification of such on the inspection report).
- Two very large main vessels (23245 and 23246) and a head of a third (23247) have been recently moved at the (b)(4) facility. They are now stored in an unprotected area (outside the (b)(4)). The items are not covered in any manner and some peripheral openings are not capped. The Supplier's General Manager was aware of the move but no corrective action or noncompliance report was presented.
- Numerous examples of incomplete sentences are evident on the 2016 (b)(4) inspection checklist.
- 2016 (b)(4) inspection checklist is missing some complete and partial sections that should have been included (per the procedure).
- The 2016 (b)(4) inspection was not performed by the QC Manager and the Project Manager, as required.
- No record of either the 2015 (b)(4) or (b)(4) inspections could be located. (Note: no report of the 2016 (b)(4) inspection was produced, but the results were discussed during the surveillance – the 2016 checklist may be presumed to have been in preparation, as the inspection was only performed the day before the (b)(4) (b)(4) portion of the surveillance).
- The storage procedure contains checklist templates for (b)(4) and (b)(4) inspections (Appendix A). Those templates are incomplete, as they do not show a subsection "e" for some (but not all) of the listed inspection categories.
- No evidence of storage procedure training for the current QC Manager or Project Manager (presumed to be the General Manager) was provided. Both positions have responsibilities identified in the storage procedure.



Supplier Corrective Action Report

CCN: 291829
Attachment 2

Date: 8/30/16 Document No.: 24590-WTP-SCAR-QA-16-020 Rev: _____

Title: (b)(4) Long Term Storage Issues

Identified by:	(b)(6)	Title: Sr. QA Specialist	Date: 8/30/16
Validated by:	(b)(6)	Title: Supplier Qualification Supervisor	Date: 8/30/16

Adverse Condition Evaluation

Classification: ☐ Non-significant? ☒ Significant

Impact Evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☐ Yes – Addressed in WTP-CR / NCR / CDR:

☒ No – No impact (Justification required): All issues are related to long-term storage at the Supplier's facilities.

Is a stop work required prevent the condition from recurring in the supplier's production line? ☐ Yes ☒ No

Is a stop shipment required to prevent the condition from affecting undelivered items / services? ☐ Yes ☒ No

Restriction(s): None - stop work (except for storage) and stop shipment are already in place.

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsqu@bechtel.com by 10/21/16. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:

- ☒ Cause analysis
- ☒ Extent of condition
- ☒ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsqu@bechtel.com.

Corrective Action Verification

Supplier corrective action plan received (See CCN)

Supplier corrective action plan verified acceptable (See CCN)

Supplier corrective actions completed (See CCN)

Supplier corrective actions verified complete and SCAR closed (See CCN)



Supplier Corrective Action Report

CCN: 291829
Attachment 2

Date: 8/30/16 Document No.: 24590-WTP-SCAR-QA-16-020 Rev: _____

Title: (b)(4) Long Term Storage Issues

Supplier Response Direction (continued)

Supplier Corrective Action Report Closure

Concurrence by:

Print/Type Name

Title

Signature

Date

Verified by:

Print/Type Name

Title

Signature

Date

Approved by:

(b)(6)

Quality Assessment
Manager

Print/Type Name

Title

Signature

Date

Revision History:

Revision	Reason for Revision
0	Initial issue.



Supplier Corrective Action Report

CCN: 275249
Attachment 4

Date: June 25, 2015

Document No.: 24590-WTP-SCAR-QA-15-028

Rev:

(b)(4)

Title: [REDACTED] Use and Control of Design Analysis Software

Requirements/Referenced Documents

Requirement(s):

Summary: PPM 2.02 and PPM 7.04 require software to be verified and validated or pre-verified prior to use.

Use of SAPHIRE

- 1) PPM 3.0, section 4.9.1 requires "The PM, or designee, shall develop and maintain a Project Master Configuration List (MCL) that identifies all approved Project documents, which are used for the conduct of Project activities, and documents the final system configuration. The MCL is a key element in maintaining Project document control and, therefore, only documents listed on the MCL shall be used for the conduct of Project activities. The MCL shall identify the current revision of all Project documents."

PPM 4.0, section 4.2.3 requires "The MCL shall be used as the quality verification document to verify that individuals performing Project activities are using only current approved and issued documents. Refer to PPM 3.0 for requirements related to the MCL. The project Engineer (PE) shall maintain the MCL up to date and verify that only current approved and issued documents, identified on the MCL are being used by Project personnel. The Project Quality Assurance Engineer (PQAE) will monitor Project activities, as necessary, to ensure compliance with these requirements. The QA verification activities shall be documented."

- 2) PPM 7.04, section 4.2.1 requires "A Master Configuration List (MCL) shall be developed in accordance with the applicable portions of PPM 3.0 for each software tool."
- 3) PPM 2.02 section 4.4.1 requires software used in calculation be listed on a master list of computer program approved for use for safety related projects per PPM 7.04.
- 4) PPM 7.04 section 4.4.4 requires "Upon completion of the technical review process (Paragraph 4.4.3), the software tool is considered fully functional and ready for verification and validation. The software tool is now subject to configuration control and the PE shall ensure that the software tool developer initiates a Software Development Checklist (SDC) in accordance with Section 4.5. The developer or PE shall create Software Tool Master Disk, on a read-only CD-R, containing the Project reviewed version of the software tool. The SDC shall be submitted to the IV&V Group as applicable."

PPM 7.04 section 4.4.5 requires "The software tool files shall be maintained by the software developer or Project Engineer prior to submittal to the IV&V Group for verification. All version of the software tool submitted to the IV&V Group shall be placed on a Master Disk (read-only CD-R) and shall be placed in the Project File such that it is accessible and retrievable to the Project Manager, QA, and IV&V Manager. All versions of the software tool submitted to the IV&V Group shall also be placed on the Nuclear Integration (NI) network drive by PDC."

- 5) If SAPHIRE is considered pre-verified, PPM 2.02 Section 4.4.2.1, requires "Pre-verified programs may be industry/NRC approved programs or software tools developed or verified by [REDACTED] in accordance with PPM 7.04. Verification of computer programs shall be documented per the guidance in PPM 7.04 and be approved by either the Engineering Director or the IV&V Director, depending upon which organization is responsible for the software tool. Documentation of the approval, verification for the intended application, and instructions for use (including any required pre-use or periodic verifications shall be available" and "Verification of computer programs shall be documented per guidance in PPM 7.04".
- 6) If SAPHIRE is NOT considered pre-verified: PPM 2.02 section 4.4.2.2 requires "Computer programs may be utilized for design analysis/calculation without verification of the program for each application provided:
- The computer program has been verified to show that it produces correct solutions for the encoded mathematical model within define limits for each parameter employed; and



Supplier Corrective Action Report

CCN: 275249
Attachment 4

Date: June 25, 2015

Document No.: 24590-WTP-SCAR-QA-15-028

Rev: _____

Title: (b)(4) Use and Control of Design Analysis Software

- The encoded mathematical model has been shown to produce a valid solution to the physical problem associated with the particular application.
- Programs shall be validated by suitable sample calculations. These sample calculations may be by way of another approved computer program, manual calculations or a combination of both. These sample calculations shall be included an appendix to the base calculation."

And "Computer programs shall be controlled to assure that changes are documented and approved by authorized personnel."

PPM 7.04 section 4.3.4, requires "Test Procedures developed in accordance with PPM 7.01, Software Verification or equivalent procedures shall be developed by other and reviewed and approved by Triconex."

Use of MARKOV MODEL

- 7) PPM 7.04, section 4.1 requires "Software tools will be verified and validated with a level of rigor commensurate with their operational requirements and complexity. Test case development for software tools shall be in accordance with PPM 7.01" and Section 4.2 requires "The Project Document Control Group (PDC) shall maintain a log, the Software Tool Project Log (Form 7-3), of all Triconex internal software tools. Documents generated for the Triconex internal software tool shall be numbered in accordance with PPM 4.0.

Corresponding NQA-1 Requirement: Subpart 2.7

WTP Source Document Number: Supplier Audit #24590-WTP-AR-QA-15-003

Description of Adverse Condition

Summary: Contrary to the requirements, the software named MARKOV Model and SAPHIRE version 7.27.0.41 were used in the calculation Evidence of SIL Capability: "Anhydrous Ammonia Reagent (AMR) Safety System Logic Solver Cabinet, AMR-ENCL-0003 (b)(4) which is a deliverable to the WTP, without verification or pre-verification.

- 1) Contrary to the requirements, the MCL did not contain a reference to the software used to draft the SIL determination, nor was the SIL determination document listed on the MCL.
- 2) Contrary to the requirement, no MCL is available.
- 3) Contrary to the requirements, SAPHIRE and MARKOV were not listed on the master list of approved software for use in safety related calculations.
- 4) Contrary to the requirements, there is no objective evidence of SAPHIRE under configuration management or SAPHIRE software placed on a Master Disk.
- 5) Contrary to the requirements, there is no evidence of SAPHIRE approval, documentation of verification for intended use, or instructions for use.
- 6) Contrary to the requirements, SAPHIRE is not under configuration management or control; there is no objective evidence of Verification and Validation testing and test procedures for SAPHIRE were not developed.
- 7) There was no V&V of Markov to allow its use on the project.

Identified by: (b)(4),(b)(6)

Title: Software QA Engineer

Date: June 25, 2015



Supplier Corrective Action Report

CCN: 275249
Attachment 4

Date: June 25, 2015 Document No.: 24590-WTP-SCAR-QA-15-028 Rev: _____

Title: (b)(4) Use and Control of Design Analysis Software

Validated by: (b)(6) Title: Sr. QA Engineer Date: June 25, 2015

Adverse Condition Evaluation

Classification: ☒ Non-significant? ☐ Significant

Impact evaluation:

Does the adverse condition impact items / services already received by the WTP Project?

☐ Yes - Addressed in WTP-CR / NCR / CDR:

☒ No - No impact (Justification required): No items shipped to WTP

Is a stop work required prevent the condition from recurring in the supplier's production line? ☐ Yes ☒ No

Is a stop shipment required to prevent the condition from affecting undelivered items / services? ☐ Yes ☒ No

Restriction(s):

Supplier Response Direction

Supplier shall: 1) document the adverse condition in their corrective action program, 2) detail the planned corrective actions and expected completion date of the corrective actions in the corrective action document, and 3) forward the corrective action document to wtpsq@bechtel.com by August 31, 2015. In addition to immediate, compensatory, and remedial actions to resolve the adverse condition, the corrective action document must address the following selected items:

- ☒ Cause analysis
- ☒ Extent of condition
- ☒ Action to correct the cause and preclude recurrence

Upon resolution of the adverse condition, the supplier shall provide a copy of the closed corrective action document and all applicable objective evidence to substantiate resolution of the adverse condition to wtpsq@bechtel.com.



Supplier Corrective Action Report

CCN: 275249
Attachment 4

Date: June 25, 2015 Document No.: 24590-WTP-SCAR-QA-15-028 Rev: _____

Title: (b)(4) Use and Control of Design Analysis Software

Corrective Action Verification

Supplier corrective action plan received (See CCN)

Supplier corrective action plan verified acceptable (See CCN)

Supplier corrective actions completed (See CCN)

Supplier corrective actions verified complete and SCAR closed (See CCN)

Supplier Corrective Action Report Closure Approval

Concurrence by: _____ Title _____ Date _____

Verified by: _____ Title _____ Date _____

Approved by: _____ Quality Assessments
Manager
(b)(6) Title _____ Date _____

Revision History:

Revision	Reason for Revision
0	Initial issue.