



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

October 14, 2020

Mr. Vince Grieb,  
VP Quality Assurance  
C&D Technologies  
1400 Union Meeting Rd  
Blue Bell, PA 19422

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT OF  
C&D TECHNOLOGIES, NO. 99901385/2020-201

Dear Mr. Grieb:

From September 14 through September 18, 2020, the U.S. Nuclear Regulatory Commission (NRC) staff conducted an inspection at C&D Technologies' (hereafter referred to as C&D) facilities in Blue Bell and Horsham, PA. The purpose of this limited-scope inspection was to verify that C&D's corrective actions initiated to address the findings identified during NRC inspections performed in March 2014, September 2015, and May 2017 were adequately implemented and met the applicable requirements of Criterion XVI, "Corrective Action," of Appendix B, "Quality Assurance Program Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities."

This technically-focused inspection specifically evaluated C&D's implementation and closure of the corrective actions taken in response to Notice of Nonconformance (NON) 99901385/2014-201-02, NON 99901385/2014-201-03, NON 99901385/2014-201-04 and NON 99901385/2014-201-05, documented in NRC inspection report (IR) No. 99901385/2014-201, dated April 21, 2014 (Agencywide Documents Access and Management System Accession (ADAMS) No. ML14107A383); NON 99901385/2015-201-01 and NON 99901385/2015-201-02, documented in NRC IR No. 99901385/2015-201, dated January 8, 2016 (ADAMS No. ML15307A198); and NON 99901466/2017-201-01, documented in NRC IR No. 99901466/2017-201, dated June 19, 2017 (ADAMS No. ML17165A387). During this inspection, the NRC inspection team determined that C&D's corrective actions were adequate to address the NONs mentioned above. Based on the review of the corrective actions, the NRC inspection team closed NON 99901385/2014-201-02, NON 99901385/2014-201-03, NON 99901385/2014-201-04, NON 99901385/2014-201-05, NON 99901385/2015-201-01, NON 99901385/2015-201-02, and NON 99901466/2017-201-01. The enclosed report presents the results of the inspection. This NRC inspection report does not constitute NRC endorsement of C&D's overall quality assurance (QA) program.

In accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding," of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be made available electronically for public inspection in the NRC's Public Document Room and in ADAMS, accessible from the NRC's public web site at <http://www.nrc.gov/reading-rm/adams.html>.

Sincerely,

Kerri A. Kavanagh, Chief **/RA/**  
Quality Assurance and Vendor Inspection Branch  
Division of Reactor Oversight  
Office of Nuclear Reactor Regulation

Docket No.: 99901385

EPID No.: I-2020-201-0052

Enclosure: Inspection Report No. 99901385/2020-201  
and Attachment

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT OF  
C&D TECHNOLOGIES, NO. 99901385/2020-201 Dated: October 14, 2020

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<b>ADAMS Accession No.:</b>	ML20274A247	*via email	NRR-106	
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<b>NAME</b>	AKeim*	DPark*	JOrtega-Luciano*	KKavanagh*
<b>DATE</b>	9/28/2020	9/30/2020	10/6/2020	10/14/2020

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**U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION  
DIVISION OF REACTOR OVERSIGHT  
VENDOR INSPECTION REPORT**

Docket No.: 99901385

Report No.: 99901385/2020-201

Vendor: C&D Technologies  
1400 Union Meeting Rd  
Blue Bell, PA 19422

Vendor Contact: Mr. Vince Grieb  
Vice President Quality Assurance  
Email: VGrieb@TrojanBattery.com

Nuclear Industry Activity: C&D provides Class 1E batteries for safety-related applications to U.S. nuclear power plants.

Inspection Dates: September 14 - 18, 2020

Inspection Team Leader Jonathan Ortega-Luciano NRR/DRO/IQVB

Inspectors: Andrea Keim NRR/DRO/IQVB  
Dong Park NRR/DRO/IQVB

Approved by: Kerri A. Kavanagh, Chief  
Quality Assurance and Vendor Inspection Branch  
Division of Reactor Oversight  
Office of Nuclear Reactor Regulation

Enclosure

## EXECUTIVE SUMMARY

### C&D TECHNOLOGIES 99901385/2020-201

The U.S. Nuclear Regulatory Commission (NRC) staff conducted a vendor inspection at the C&D Technologies' (hereafter referred to as C&D) facilities located in Blue Bell and Horsham, PA, to evaluate C&D's corrective actions initiated to address the findings identified during the NRC inspections performed in March 2014, September 2015, and May 2017 to ensure they were adequately implemented and met the applicable requirements of Criterion XVI, "Corrective Action," of Appendix B, "Quality Assurance Program Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities." The NRC inspection team conducted this inspection on September 14 - 18, 2020. This was the fourth NRC inspection of C&D in the last six years.

This technically-focused inspection specifically evaluated C&D's implementation and closure of the corrective actions taken in response to Notice of Nonconformance (NON) 99901385/2014-201-02, NON 99901385/2014-201-03, NON 99901385/2014-201-04, and NON 99901385/2014-201-05, documented in NRC inspection report (IR) No. 99901385/2014-201, dated April 21, 2014 (Agencywide Documents Access and Management System Accession (ADAMS) No. ML14107A383); NON 99901385/2015-201-01 and NON 99901385/2015-201-02, documented in NRC IR No. 99901385/2015-201, dated January 8, 2016 (ADAMS No. ML15307A198); and NON 99901466/2017-201-01, documented in NRC IR No. 99901466/2017-201, dated June 19, 2017 (ADAMS No. ML17165A387).

These regulations served as the bases for the NRC inspection:

- Appendix B to 10 CFR Part 50
- 10 CFR Part 21

During the course of this inspection, the NRC inspection team implemented portions of Inspection Procedure (IP) 36100, "Inspection of 10 CFR Part 21 and Programs for Reporting Defects and Noncompliance," dated May 16, 2019; IP 43002, "Routine Inspections of Nuclear Vendors," dated January 27, 2017; and IP 43004, "Inspection of Commercial-Grade Dedication Programs," dated January 27, 2017.

The results of this inspection are summarized below.

#### 10 CFR Part 21

The NRC inspection team reviewed C&D's policies and implementing procedures that govern the implementation of its 10 CFR Part 21 program. The NRC inspection team: (1) reviewed the 10 CFR Part 21 postings, (2) reviewed a sample of purchase orders (POs), and (3) verified that C&D's corrective action program provides a link to the 10 CFR Part 21 program. No findings of significance were identified.

#### Corrective Action

The NRC inspection team reviewed C&D's policies and implementing procedures that govern the implementation of its corrective action program to verify compliance with the regulatory

requirements of Criterion XVI, "Corrective Action," of Appendix B to 10 CFR Part 50. Specifically, the NRC inspection team reviewed the implementation and closure of the corrective actions taken by C&D in response to NON 99901385/2014-201-02, NON 99901385/2014-201-03, NON 99901385/2014-201-04, NON 99901385/2014-201-05, NON 99901385/2015-201-01, NON 99901385/2015-201-02, and NON 99901466/2017-201-01. The NRC inspection team reviewed the documentation that provided objective evidence that all the corrective actions were completed and adequately implemented. Based on the review of the corrective actions, the NRC inspection team closed NON 99901385/2014-201-02, NON 99901385/2014-201-03, NON 99901385/2014-201-04, NON 99901385/2014-201-05, NON 99901385/2015-201-01, NON 99901385/2015-201-02, and NON 99901466/2017-201-01.

During a review of recent condition reports (CRs) the NRC inspection team identified a minor issue related to CR 200022. Procedure BB-QOP 8.5.2 "Condition Reporting," requires that for CRs with a significance categorized as 'Level A,' a root cause evaluation be conducted to address the cause and prevent recurrence. The NRC inspection team identified that CR 200022 was categorized as 'Level A' and a root cause evaluation was not performed. It was determined that the reference standard in question was not used to calibrate any data loggers during the period that the standard was affected by an out of tolerance condition. C&D initiated CR 200052 to address this issue. No findings of significance were identified.

## REPORT DETAILS

### 1. Corrective Action

#### a. Inspection Scope

The Nuclear Regulatory Commission (NRC) inspection team reviewed C&D Technologies' (hereafter referred to as C&D) policies and implementing procedures that govern the implementation of its corrective action program to verify compliance with the regulatory requirements of Criterion XVI, "Corrective Action," of Appendix B, "Quality Assurance Program Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities." Specifically, the NRC inspection team reviewed the implementation and closure of the corrective actions taken in response to Notice of Nonconformance (NON) 99901385/2014-201-02, NON 99901385/2014-201-03, NON 99901385/2014-201-04, and NON 99901385/2014-201-05, documented in NRC inspection report (IR) No. 99901385/2014-201, dated April 21, 2014 (Agencywide Documents Access and Management System Accession (ADAMS) No. ML14107A383); NON 99901385/2015-201-01 and NON 99901385/2015-201-02, documented in NRC IR No. 99901385/2015-201, dated January 8, 2016 (ADAMS No. ML15307A198); and NON 99901466/2017-201-01, documented in NRC IR No. 99901466/2017-201, dated June 19, 2017 (ADAMS No. ML17165A387).

The NRC inspection team also discussed the corrective action program with C&D's management and technical staff. The attachment to this inspection report lists the documents reviewed by the NRC inspection team.

#### b. Observation and Findings

##### b.1 Corrective Action Associated with NON 99901385/2014-201-02

Following the March 2014 inspection of C&D, the NRC issued NON 99901385/2014-201-02 for C&D's failure to provide documentation to show that the LCR-21 batteries on C&D Order No. 2393760 were qualified under the most adverse conditions in accordance with the purchase order (PO) specification, Institute of Electrical and Electronics Engineers (IEEE) standard 535-1979, "Standard for Qualification of Class 1E Lead Storage Batteries for Nuclear Power Generating Stations." Specifically, C&D referenced a previous type testing report to bound battery qualification for this C&D order; however, the referenced qualification report was not performed in accordance with IEEE 535-1979 with respect to properly aging the batteries to provide assurance that the batteries are capable of performing before, during, and after a seismic event. In its response dated May 21, 2014 (ADAMS No. ML14143A210), C&D stated that it had initiated Corrective Action (CA) No. RS-1037 14-15 to address this issue. The response stated that C&D Engineering completed a review of Qualification Report (QR 207209) and determined that no issues exist which would compromise the seismic qualification of the LCR-21 batteries.

The NRC inspection team reviewed the documentation that provided the objective evidence for the completion and implementation of the corrective actions, including the review of QR-1-72042. The NRC inspection team confirmed during an interview with the Senior Director of Product Development that the cross-reference spreadsheet of differences with IEEE revisions, TR-00017 IEEE 1E Code Comparison Worksheet, identified IEEE 535-1979 referencing qualification testing per IEEE 323-1974, "Qualifying Electrical Equipment to the Harsh Environments of Nuclear Power Plants," and seismic testing per IEEE 344-1975, "Recommended Practices for Seismic Qualification of Class 1E Equipment for Nuclear Power Generating Stations," which aligns with the qualification guidelines listed in QR-1-72042. Based on the review of the corrective actions, the NRC inspection team closed NON 99901385/2014-201-02. No findings of significance were identified.

b.2 Corrective Action Associated with NON 99901385/2014-201-03

Following the March 2014 inspection of C&D, the NRC issued NON 99901385/2014-201-03 for C&D's failure to take measures to review for suitability that ensures and adequately demonstrates that original type testing performed for K-line batteries envelop customer qualification requirements. Specifically, C&D failed to provide any documentation to show how the differences between the IEEE versions required by PO 00472405 and original K-type testing were evaluated and/or dispositioned with the customer within the qualification report. Also, C&D failed to provide documentation to show that a qualification report existed for PO 00501212, Revision 3, to Exelon (Clinton Power Station). In its response dated May 21, 2014, C&D stated that it had initiated CA No. RS-1037 14-16 to address this issue. The response stated that C&D Engineering developed a formal cross-reference document which bridges the various standard revisions and the original K-type testing with regards to customer requirements. The document shows that the changes to the applicable IEEE standards had no impact on the qualification of the batteries.

The NRC inspection team reviewed the documentation that provided the objective evidence for the completion and implementation of the corrective actions, including review of TR-00017 IEEE 1E Code Comparison Worksheet. The document showed that the changes to the applicable IEEE standards had no impact on the qualification of the batteries. With respect to PO 00501212, the NRC inspection team reviewed IEEE-323 qualification report to verify the batteries supplied via this PO were qualified and bounded to the original type testing document. Based on the review of the corrective actions, the NRC inspection team closed NON 99901385/2014-201-03. No findings of significance were identified.

b.3 Corrective Action Associated with NON 99901385/2014-201-04

Following the March 2014 inspection of C&D facility, the NRC issued NON 99901385/2014-201-04 for C&D's failure to assure conditions adverse to quality are identified and corrected. In its response dated May 21, 2014, C&D stated that it had initiated CA No. RS-1037 14-17 to address this issue. The response stated that the procedure for customer complaints has been revised to require



all complaints related to nuclear 1E products require evaluations and verification in accordance with C&D's 10 CFR Part 21 procedure.

The NRC inspection team reviewed the documentation that provided the objective evidence for the completion and implementation of the corrective actions, including review of the procedure for customer complaints and condition reporting to verify that it had controls in place for assessing nuclear related complaints for 10 CFR Part 21 applicability. Based on the review of the corrective actions, the NRC inspection team closed NON 9990135/2014-201-04. No findings of significance were identified.

b.4 Corrective Action Associated with NON 99901385/2014-201-05

Following the March 2014 inspection of C&D, the NRC issued NON 99901385/2014-201-05 for C&D's failure to review nonconforming items in accordance with documented procedures. Specifically, the NRC inspection team identified four examples related to commercial-grade dedication (CGD) process where nonconforming conditions were not properly entered in to the nonconformance process. In its response dated May 21, 2014, C&D stated that it had initiated CA No. RS-1037 14-18 to address this issue. The response stated that applicable personnel were trained on the requirements for nonconformances and CGD to ensure thorough understanding of procedural requirements. In addition, C&D reviewed all dedications completed since 2009 to identify those which were closed without generating a nonconformance. Any identified nonconformances were reviewed in accordance with C&D's 10 CFR Part 21 process.

The NRC inspection team reviewed the documentation that provided the objective evidence for the completion and implementation of the corrective actions, including the attendance sheet for training, documentation for dedication packages review, and the 10 CFR Part 21 applicability review for those nonconformances identified. Based on the review of the corrective actions, the NRC inspection team closed NON 99901385/2014-201-05. No findings of significance were identified.

b.5 Corrective Action Associated with NON 99901385/2015-201-01

Following the September 2015 inspection of C&D, the NRC issued NON 99901385/2015-201-01 for C&D's failure to take measures to preclude repetition of significant conditions adverse to quality. Specifically, the NRC inspection team identified three examples: 1) C&D closed a CR without correcting the issue that caused them to fail to initiate the 10 CFR Part 21 process and without performing a root cause evaluation to preclude repetition, 2) C&D performed an extent of condition and identified improperly documented nonconformances, however the condition adverse to quality was not corrected nor were the nonconformances entered into the nonconformance process and, 3) a procedure was not developed to ensure that as applicable IEEE standards are revised the qualification is reviewed and the cross-reference document updated to reflect that review, as proposed to address an issue during the 2014 NRC inspection.

In its response dated February 19, 2016 (ADAMS No. ML16054A816), C&D initiated condition report (CR) 16-22 to address this NON. C&D stated that in order to address these issues that changes were made to the customer complaint process and nonconformance program to ensure that all nuclear related product are assessed for applicability to 10 CFR Part 21; redesigned the nonconforming material system in the Attica facility; formed a material review board to review all nonconformances against the 10 CFR Part 21 process; and established periodic performance reviews of nonconforming material conditions and log entries.

The NRC inspection team reviewed the documentation that provided the objective evidence for the completion and implementation of the corrective actions, including the changes made to the customer complaint procedure and verified that it requires all nuclear related complaints be reviewed for applicability to initiate the C&D 10 CFR Part 21 process. Also, the NRC inspection team reviewed the process for nonconformances and had discussions with C&D management on the process and the function of the materials review board. Furthermore, the NRC inspection team reviewed a sample of the qualification reports and the procedure developed to document the cross-reference for testing and IEEE specifications. Based on the review of the corrective actions, the NRC inspection team closed NON 99901385/2015-201-01.

To verify effectiveness of the corrective action the NRC inspection team selected a sample of eight CRs reports from 2017 through 2020 to ensure that technical deficiencies have been appropriately evaluated, dispositioned, and reported to customers, as applicable. During the review, the NRC inspection team noted that CR 200022 was categorized with a Significance Level A, for a reference voltage standard EDC #2, which was found out of tolerance when calibrated on December 2018 and an out of tolerance evaluation was not performed for this EDC #2.

C&D's Quality Assurance (QA) manual states that the corrective action procedure provides requirements for determining the causes of nonconformities including the root cause evaluation of significant conditions adverse to quality. Procedure BB-QOP 8.5.2, "Condition Reporting," (previously called "Corrective Action") step 6.1.3 states, "If the issue is Significance (Level A), determine actions required to address the root causes of the condition and actions to prevent recurrence." It was determined that EDC #2 was not used to calibrate any data loggers during the period that the standard was affected by the out of tolerance condition, therefore no items were delivered to licensees that may have been affected by the out of tolerance condition.

Based on the objective evidence evaluated and that no items were delivered to licensee that could create a situation that the batteries would not be able to perform their intended safety function, the failure to comply with the requirements of procedure BB-QOP 8.5.2 for CR 200022 was considered a minor issue by the NRC inspection team. C&D issued CR 200052 dated September 17, 2020, to address this issue. No findings of significance were identified.

b.6 Corrective Action Associated with NON 99901385/2015-201-02

Following the September 2015 inspection of C&D, the NRC issued NON 99901385/2015-201-02 for C&D's failure to ensure that portions of the QA program were effectively executed and to verify that activities affecting safety-related functions have been performed correctly. Specifically, C&D failed to take timely and effective corrective actions to address a significant condition adverse to quality. In its response dated February 19, 2016 C&D initiated CRs 16-21 and 16-22 to address this NON. C&D stated that management has been restructured to create a direct reporting of the quality function to the Chief Executive Officer (CEO); established monthly meetings to evaluate corrective actions; and redesigned the functions of the Safety Committee.

The NRC inspection team reviewed the documentation that provided the objective evidence for the implementation of the new restructured and redesigned organizations. Based on the review, the NRC inspection team closed NON 99901385/2015-201-02. No findings of significance were identified.

b.7 Corrective Action Associated with NON 99901466/2017-201-01

Following the May 2017 inspection of C&D, the NRC issued NON 99901466/2017-201-01 for C&D's failure to verify that internal audits were performed by personnel not having direct responsibilities in the areas being audited. C&D's QA manual designated a quality system manager responsible for auditing the nonconformance and Part 21 programs. Specifically, during Internal Audit IA-BB-2015-01, C&D's Corporate Quality Systems Manager audited areas for which he had direct responsibility. In its response dated July 18, 2017 (ADAMS No. ML17216A027), under CR 16-21, C&D stated that actions were taken to enhance auditor independence such as the creation of a matrix to ensure that auditors do not audit an element for which they had direct responsibility; and provided training.

The NRC inspection team reviewed the documentation that provided the objective evidence for the completion of the corrective actions and C&D's internal audits conducted after the May 2017 inspection. Based on this review, the NRC inspection team closed NON 99901466/2017-201-01. No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that with the exception of the minor issue identified herein, that C&D has adequately implemented its program for corrective actions associated with NON 99901385/2014-201-02, NON 99901385/2014-201-03, NON 99901385/2014-201-04, and NON 99901385/2014-201-05, described in NRC IR No. 99901385/2014-201, dated April 21, 2014; NON 99901385/2015-201-01 and NON 99901385/2015-201-02, described in NRC IR No. 99901385/2015-201, dated January 8, 2016; and NON 99901466/2017-201-01, described in NRC IR No. 99901466/2017-201, dated June 19, 2017. Based on the limited sample of documents reviewed, the NRC inspection team determined that C&D has taken adequate corrective actions to

resolve the nonconforming conditions identified in the subject NONs. No findings of significance were identified.

## 2. 10 CFR Part 21 Program

### a. Inspection Scope

The NRC inspection team reviewed C&D's policies and implementing procedures that govern the implementation of its Title 10 of the Code of Federal Regulations (10 CFR) Part 21, "Reporting of Defects and Noncompliance," program to verify compliance with the regulatory requirements. The NRC inspection team also evaluated the 10 CFR Part 21 postings and a sample of C&D's purchase orders (POs) for compliance with the requirements of 10 CFR 21.21, "Notification of Failure to Comply or Existence of a Defect and its Evaluation," and 10 CFR 21.31, "Procurement Documents." In addition, the NRC inspection team also verified that C&D's nonconformance and corrective action procedures provide a link to the 10 CFR Part 21 program. Furthermore, for a sample of 10 CFR Part 21 evaluations performed by C&D, the NRC inspection team verified that C&D had effectively implemented the requirements for evaluating deviations and failures to comply.

The NRC inspection team also discussed the 10 CFR Part 21 program with C&D's management staff. The attachment to this inspection report lists the documents reviewed by the NRC inspection team.

### b. Observations and Findings

No findings of significance were identified.

### c. Conclusion

The NRC inspection team concluded that C&D is implementing its 10 CFR Part 21 program in accordance with the regulatory requirements of 10 CFR Part 21. Based on the limited sample of documents reviewed, the NRC inspection team also determined that C&D is implementing its policies and procedures associated with the 10 CFR Part 21 program. No findings of significance were identified.

## 3. Entrance and Exit Meetings

On September 14, 2020, the NRC inspection team discussed the scope of the inspection with Mr. Bob Malley, Vice President (VP) of Customer Experience, Mr. Vince Grieb, VP of Quality, and other members of C&D's management and technical staff. On September 18, 2020, the NRC inspection team presented the inspection results and observations during an exit meeting with Mr. Malley, Mr. Grieb, and other members of C&D's management and technical staff. The attachment to this report lists the attendees of the entrance and exit meetings, as well as those individuals whom the NRC inspection team interviewed.

## ATTACHMENT

### 1. Entrance/Exit Meeting Attendees and Persons Interviewed

<b>Name</b>	<b>Title</b>	<b>Affiliation</b>	<b>Entrance</b>	<b>Exit</b>	<b>Interviewed</b>
Jonathan Ortega-Luciano	Inspection Team Leader	NRC	X	X	
Andrea Keim	Inspector	NRC	X	X	
Dong Park	Inspector	NRC	X	X	
Kerri Kavanagh*	Chief, Quality Assurance and Vendor Inspection Branch			X	
Bob Malley	Vice President (VP) Customer Experience	C&D Technologies (C&D)	X	X	X
Christopher Adams	Attica Quality Manager	C&D	X	X	
Drew D. Heimer	Senior Director Product Development	C&D	X	X	X
Eric Lehmann	Quality Services	C&D		X	
Fernando Gonzalez Acevedo	Attica Plant Manger	C&D	X	X	
Kristen Jamison	Nuclear Application Engineer	C&D	X	X	
Lisa Smith	Quality Associate	C&D	X	X	
Roger Capps	Attica Customer Quality Coordinator	C&D	X	X	
Vince Grieb	VP Quality	C&D	X	X	
Randy Clair	Manager, Material Test Lab	C&D			X

\*Teleconference call

### 2. INSPECTION PROCEDURES USED

- Inspection Procedure (IP) 36100, "Inspection of 10 CFR Part 21 and Programs for Reporting Defects and Noncompliance," dated May 16, 2019
- IP 43002, "Routine Inspections of Nuclear Vendors," dated January 27, 2017
- IP 43004, "Inspection of Commercial-Grade Dedication Programs," dated January 27, 2017

3. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Item Number	Status	Type	Description
99901385/2014-201-02	CLOSED	NON	Criterion III
99901385/2014-201-03	CLOSED	NON	Criterion III
99901385/2014-201-04	CLOSED	NON	Criterion XVI
99901385/2014-201-05	CLOSED	NON	Criterion XV
99901385/2015-201-01	CLOSED	NON	Criterion XVI
99901385/2015-201-02	CLOSED	NON	Criterion I
99901466/2017-201-01	CLOSED	NON	Criterion XVIII

4. DOCUMENTS REVIEWED

Policies and Procedures

- “C&D Technology Quality Manual,” Issue FF, dated March 2, 2018
- A-14, “Evaluation, Notification & Reporting Responsibilities in Accordance with USNRC 10CFR21 Regulations,” Revision 14, dated May 4, 2017
- Attica Quality Operating Procedure (AQOP) 8.7, “Control of Nonconforming Processes Outputs, Products and Services,” Revision E, dated May 27, 2020
- AQOP 10, “Improvement,” Revision B, dated March 5, 2020
- AQ Work instruction (WI) 8.2.4.3, “Rework/Retest of Nuclear Commercial Grade or IE Safety Related Product,” Revision E, dated November 18, 2015
- Blue Bell (BB) Quality Operating Procedure (QOP) 7.4.1-b, “Supplier Evaluation,” Revision 9, dated August 4, 2020
- BB-QOP-7.4.3, “Commercial Grade Dedication,” Revision 7, dated March 15, 2019
- BB-QOP-7.4.3b, “Suppliers Audit/Commercial Grade Surveys,” Revision 8, dated November 30, 2018
- BB-QOP-7.6.1, “Laboratory Calibration Procedure,” Revision 5, dated August 4, 2020
- BB-WI 8.2.1-2, “Customer Complaints,” Revision 10, dated March 26, 2018
- BB-QOP-8.2.2, “Internal Audit Procedure,” Revision 7, dated August 20, 2017
- BB-QOP 8.5.2, “Condition Reporting (CR),” Revision 8, dated August 18, 2017
- BB-WI-6.2.2-1, “Auditor Qualification,” Revision 3, dated August 31, 2017
- WI-7.3.6-1, “Standard Revision Review for Nuclear Qualifications,” Revision 0, dated June 30, 2016

#### Procurement Documents (PO)

- Entergy PO 10358362 (C&D order 2393760) for LCR21 Batteries and Accessories, Revision 3, January 8, 2013
- PO 00472405 Exelon Braidwood to C&D, Release 1 Revision 2, dated November 09, 2011
- PO 00472405 Exelon Byron to C&D, Release 3 Revision 2, dated February 27, 2012
- PO 00501212 Exelon Clinton to C&D, Revision 3, dated October 1, 2013

#### Qualification Reports

- Nuclear Environmental Qualification Report QR-1-72042, "Arkansas Power & Light PO No. 81162," dated February 7, 1983
- Nuclear Environmental Qualification Report QR2-07209, "Arkansas Power & Light PO No. 01013," dated March 22, 1984
- IEEE-323 qualification report for PO K-2988, Clinton Power Station, dated March 20, 1978

#### Engineering Change Request (ECR)

- ECR No. B16-0024 BB Work Instruction-IEEE Code Review, Dated March 2, 2016
- ECR000449, "PT-04 Test Procedure," Revision 03 (ECN [Engineering Change Notice] 15731 - PT-04 Test Procedure, Revision 03)
- Battery Container Dip Test Performance Qualification (PQ) Summary Report, Revision A, dated October 17, 2018
- ECR000453, "Dedication Plan Redesign" (ECN15701 - Consolidated Rib Block Dedication Plan)

#### Nonconformances (NCRs)

- NCR 19-A00220, dated January 27, 2019
- NCR 19-A02093, dated August 30, 2019
- NCR 19-A03198, dated December 3, 2019
- NCR 19-A03220, dated December 8, 2019
- NCR 19-A03413, dated December 21, 2019
- NCR 20-A00025 dated January 3, 2020
- NCR 20-A01779 dated June 15, 2020
- NCR 20-A01799 dated June 19, 2020

#### Customer Complaint (COMP)

- COMP-2018-00051, dated March 13, 2018
- COMP-2019-00096, dated May 7, 2019
- COMP-2020-00063, dated March 11, 2020

#### Corrective Report (CR)

- CR 14-15 - NRC Inspection 99901385/2014-201-02, dated April 23, 2014
- CR 14-16 - NRC Inspection 99901385/2014-201-03, dated April 23, 2014

- CR 16-21 – NRC NON99901385/2015-201-02, dated February 19, 2016
- CR 16-22 – NRC NON 99901385 2015-201-01, dated February 19, 2016
- CR 18-20 - Wrong Batteries Shipped, dated January 7, 2018
- CR 18-52 - Failure to initiate a Deviation Evaluation, dated June 23, 2018
- CR 18-53 - Mis-stamped Parts, dated May 30, 2018
- CR 18-81 - Purchase order for calibration services contains conflicting requirements, dated July 26, 2018
- CR 18-82 – CR 17-68 from 2017 IA not extended in accordance with procedure, dated July 26, 2018
- CR 18-83 – Work Instruction is not in alignment with current process, dated July 26, 2018
- CR 18-85 - Quality Manager or designee did not approve / disapprove validation for V&V, dated August 2, 2018
- CR 18-86 – Use of Calibration Supplier no on C&D’s ASL, dated August 2, 2018
- CR 18-87 – Purchase order did not specify the requirements of ISO 17025 for calibration services, dated August 2, 2018
- CR 18-92 - Xcel Energy Finding during customer witness for order 2491600 on 9/7/2018, dated September 11, 2018
- CR 18-122 - Lot Traceability, dated November 26, 2018
- CR 19-28 - Issue with shipped batteries, dated March 21, 2019
- CR 19-39 - Visual inspection flame arrestors, dated April 18, 2019
- CR 19-91 - CR system not sending automated reminders, dated December 2, 2019
- CR 19-96 - Management Review Practices, dated December 9, 2019
- CR 20-01 - QMS Internal Audit, dated January 7, 2020
- CR 20-22 - Out of Tolerance Reference standard EDC #2, dated April 7, 2020
- CR 200017 - Quality program requirements not in alignment with NEI 14-05, dated April 7, 2020
- CR 200018 – Contrary to quality manual requirements software formulas are used without been verified and validated, dated April 7, 2020
- CR 200019 – Multiple issues recorded with dataloggers that have not resulted in a CAR or NCR, dated April 7, 2020
- CR 200020 – Batteries were observed that did not meet FME requirements, dated April 7, 2020
- CR 200021 – CFSI inspection not performed in accordance with operating procedure, dated April 7, 2020
- CR 200022 – Calibration Standard found out of tolerance and no evaluation was performed, dated April 7, 2020
- CR 200023 – Datalogger found listing incorrect error value, dated April 7, 2020
- CR 200024 – Shunt calibrated with an incorrect tolerance allowance, dated April 7, 2020
- CR 200025 – Nonconformance procedure contains conflicting tagging requirements, dated April 7, 2020
- CR 200026 – Quality program requirements not in alignment with NEI 14-05, dated April 7, 2020
- CR 200027 – Calibration sequence changed for MIC-1 and procedure not updated to reflect change, dated April 7, 2020
- CR 200028 – IA excluded Procurement section for the Bluebell/Horsham locations, dated April 7, 2020



### Corrective Actions generated during this inspection

- CR 200049 – Modify Procedure A-14 to correct details in terminology and to clarify responsibilities, dated September 17, 2020
- CR 200050 - Document Nuclear Safety Committee standard work processes into a work instruction, dated September 17, 2020
- CR 200051 – CSL [Critical Suppliers List] was not updated to include note indicating qualification of all locations of calibration supplier pending review of ISO 17025 certificate, dated September 17, 2020
- CR 200052 - Lack of a documented root cause analysis in a Level A Condition Report CR 200022, dated September 17, 2020

### Commercial-Grade Dedication Records

- Material Test Report (MTR) 0000096 - Rib Block, dated September 16, 2020
- MTR0000097 – Support Rod, dated September 16, 2020
- C&D Order No. 2511764 - Bolt Assembly, dated April 1, 2020
- C&D Order No. 2506903 - Bolt Assembly, dated November 6, 2019

### Commercial-Grade Surveys/Audit Reports

- C&D IA-A-2018-01, “Nuclear Internal Audit Attica Facility,” dated August 9, 2019
- C&D IA-BB-2018-01, “Nuclear Internal Audit Blue Bell and Horsham Facilities,” dated August 8, 2018
- C&D IA-A-2019-01, “Nuclear Internal Audit Attica Facility,” dated January 12, 2020
- C&D IA-BB-2019-01, Nuclear Internal Audit Blue Bell,” dated January 9, 2020

### 10 CFR Part 21 Documents

- NER000145 – Incorrect Connectors, dated May 24, 2018
- NER000156 – Crack in Cover, dated July 3, 2018
- NER000202 – Plates: Incorrect Markings, dated November 16, 2018
- NER000212 – Poor Burn Quality, dated January 21, 2019
- NER000234 – Low Electrolyte Level, dated October 28, 2019
- NER000236 - Low Electrolyte Level, dated December 9, 2019
- NER000242 – Loss of Control of Nuclear Qualified Builder, dated January 27, 2020
- NER000247 – Site Inspection and Testing has Resulted in the Findings of One Battery with Cracks in the Post, dated June 10, 2020
- NER000250 – Possible Cracked Jar, dated June 23, 2020

### Miscellaneous

- Spreadsheet of differences with IEEE revisions, TR-00017 IEEE 1E Code Comparison Worksheet, Revision 1, dated February 16, 2016
- PT-04, “Crack and Craze Resistance of Molded Polycarbonate Jars and Parts ECR000449/ECN15731,” Revision 3, dated February 12, 2020
- DP-CDT-413-0001, “Rib Block Dedication Plan,” REF. BB-QOP-7.4.3, Revision 0, dated November 20, 2019