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

October 11, 2018

Mr. Jonathan Faia
Director of Quality & Improvement
Laboratory Testing, Inc.
2331 Topaz Drive
Hatfield, PA 19440

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT OF LABORATORY TESTING, INC. NO. 99902064/2018-201

Dear Mr. Faia:

On September 4-7, 2018, the U.S. Nuclear Regulatory Commission (NRC) staff conducted an inspection at Laboratory Testing Inc.'s (hereafter referred to as LTI) facilities in Hatfield, PA. The purpose of this limited-scope routine inspection was to assess LTI's compliance with provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 21, "Reporting of Defects and Noncompliance," and selected portions of Appendix B, "Quality Assurance Program Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities."

This technically-focused inspection specifically evaluated LTI's implementation of the quality activities associated with testing and calibration services provided for safety-related materials and equipment in support of operating nuclear power plants. The enclosed report presents the results of the inspection. This NRC inspection report does not constitute NRC endorsement of LTI's overall quality assurance (QA) or 10 CFR Part 21 program.

Based on the results of this inspection, the NRC inspection team found the implementation of your QA program met the requirements imposed on you by your customers or NRC licensees. No findings of significance were identified.

In accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," the NRC will make available electronically for public inspection a copy of this letter and its enclosure through the NRC Public Document Room or from the

NRC's Agencywide Documents Access and Management System, which is accessible at http://www.nrc.gov/reading-rm/adams.html.

Sincerely,

/RA/

Kerri A. Kavanagh, Chief
Quality Assurance Vendor Inspection Branch-2
Division of Construction Inspection
and Operational Programs
Office of New Reactors

Docket No.: 99902064

EPID No.: I-2018-201-0042

Enclosure:
Inspection Report No. 99902064/2018-201
and Attachment

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT OF LABORATORY TESTING, INC. NO. 99902064/2018-201

Dated: October 11, 2018

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U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF NEW REACTORS
DIVISION OF CONSTRUCTION INSPECTION AND OPERATIONAL PROGRAMS
VENDOR INSPECTION REPORT

Docket No.:	99902064	
Report No.:	99902064/2018-201	
Vendor:	Laboratory Testing, Inc. 2331 Topaz Drive Hatfield, PA 19440	
Vendor Contact:	Mr. Jonathan Faia, Quality Director Email: jfaia@labtesting.com Phone: (215) 716-3824	
Nuclear Industry Activity:	Laboratory Testing, Inc. (LTI), provides testing and calibration services for safety-related materials and components in support of nuclear power plant operations.	
Inspection Dates:	September 4-7, 2018	
Inspectors:	Edgardo Torres Yamir Diaz-Castillo Thomas Herrity Jonathan Ortega-Luciano Chantal Gélinas	NRO/DCIP/QVIB-1, Team Leader NRO/DCIP/QVIB-1 NRO/DCIP/QVIB-2 NRO/DCIP/QVIB-2 Canadian Nuclear Safety Commission/Observer
Approved by:	Kerri A. Kavanagh, Chief Quality Assurance Vendor Inspection Branch-2 Division of Construction Inspection and Operational Programs Office of New Reactors	

Enclosure

EXECUTIVE SUMMARY

Laboratory Testing, Inc.
99902064/2018-201

The U.S. Nuclear Regulatory Commission (NRC) staff conducted a vendor inspection at the Laboratory Testing Inc. (hereafter referred to as LTI) facility located in Hatfield, PA, to verify that it had implemented an adequate quality assurance (QA) program that complies with the requirements of Appendix B, "Quality Assurance 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." In addition, the NRC inspection team also verified that LTI implemented a program under 10 CFR Part 21, "Reporting of Defects and Noncompliance," that met the NRC's regulatory requirements. The NRC inspection team conducted the inspection on September 4-7, 2018. This was NRC's first inspection at LTI's facilities, in Hatfield, PA.

This technically-focused inspection specifically evaluated LTI's implementation of quality activities associated with calibration and testing services (i.e., material, chemical, and non-destructive evaluations (NDE)) being supplied to the current nuclear power plant operating fleet. Specific activities observed by the NRC inspection team included:

- Liquid penetrant inspection of a cast pump impeller
- Magnetic particle inspection of a 5 inch elbow LR45 80S
- Calibration of a 1.00015 inch plain ring gage master
- Calibration of a 0 to 24 inch Digimatic caliper
- Calibration of a thread plug gage G/NG ½ - 13 unified national coarse (UNC)-2B
- Charpy V-Notch testing of a 10-inch by 3-inch Schedule 100, test blank for material SA 106 Grade B

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 Inspection Procedure (IP) 43002, "Routine Inspections of Nuclear Vendors," dated January 27, 2017; IP 43004, "Inspection of Commercial-Grade Dedication Programs," dated January 27, 2017; and IP 36100, "Inspection of 10 CFR Part 21 and Programs for Reporting Defects and Noncompliance," dated February 13, 2012.

The NRC inspection team determined that LTI's QA policies and procedures comply with the applicable requirements of Appendix B to 10 CFR Part 50 and 10 CFR Part 21, and that LTI's personnel are implementing these policies and procedures effectively. No findings of significance were identified.

REPORT DETAILS

1. 10 CFR Part 21 Program

   a. Inspection Scope

   The NRC inspection team reviewed LTI's policies and implementing procedures that govern LTI's 10 CFR Part 21, "Reporting of Defects and Noncompliance," program to determine compliance with the regulatory requirements. In addition, the NRC inspection team examined the 10 CFR Part 21 postings and a sample of LTI'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." The NRC inspection team observed that LTI's nonconformance and corrective action procedures provides a link to the 10 CFR Part 21 program.

   The NRC inspection team reviewed LTI's procedure to perform 10 CFR Part 21 evaluations to determine if it addresses the requirements for evaluating deviations and failures to comply. The NRC inspection team reviewed only the procedures because at the time of the inspection LTI had not performed any evaluations under 10 CFR Part 21.

   The NRC inspection team also discussed the 10 CFR Part 21 program with LTI's management and technical 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 LTI 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 LTI policies and procedures are adequate to implement the regulatory requirements 10 CFR Part 21. No findings of significance were identified.

2. Oversight of Suppliers

   a. Inspection Scope

   The NRC inspection team reviewed LTI's policies and implementing procedures that govern the implementation of its oversight of contracted activities to determine compliance with the requirements of Criterion IV, "Procurement Document Control," and Criterion VII, "Control of Purchased Material, Equipment, and Services," of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities."

   The NRC inspection team reviewed a sample of purchase orders (POs) to determine that the POs included, as appropriate, the applicable technical and quality requirements. In addition, the NRC inspection team reviewed a sample of receipt inspection records (e.g., Certificates of Calibration), to determine that these records (1) had been reviewed by LTI

for compliance with the requirements of the POs, and (2) the records contained the applicable technical and regulatory information. In addition, the NRC inspection team reviewed a sample of external audits for qualification of Appendix B suppliers and verified that the audit reports included an audit plan, findings were identified and dispositioned, documented with adequate objective evidence of compliance with the applicable requirements, and were reviewed by LTI's responsible management. Furthermore, the NRC inspection team reviewed LTI's approved suppliers list (ASL) to determine that the suppliers listed had been qualified in accordance with LTI's specifications and that the ASL was being kept up to date.

The NRC inspection team also discussed the supplier oversight program with LTI's management and technical 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 LTI is implementing its oversight of suppliers in accordance with the regulatory requirements of Criterion IV and Criterion VII of Appendix B to 10 CFR Part 50. Based on the limited sample of documents reviewed, the NRC inspection team also determined that LTI is implementing its policies and procedures associated with the oversight of suppliers. No findings of significance were identified.

3. Commercial-Grade Dedication

a. Inspection Scope

The NRC inspection team reviewed LTI's policies and implementing procedures that govern the dedication of commercial-grade services for use in safety-related applications to determine its compliance with the applicable regulatory requirements of Criterion III, "Design Control," and Criterion VII of Appendix B to 10 CFR Part 50.

The NRC inspection team observed that LTI's commercial-grade dedication activities are limited to qualifying commercial calibration service suppliers in accordance with the requirements of the International Standard Organization (ISO)/International Electrotechnical Commission (IEC) 17025, "General Requirements for the Competence of Testing and Calibration Laboratories," in lieu of performing an on-site commercial-grade survey. Specifically, LTI implements this process in accordance with the conditions imposed on the NRC's approval of the International Laboratory Accreditation Cooperation accreditation process documented in the Arizona Public Service's safety evaluation dated September 28, 2005 (Agencywide Documents Access and Management System Accession No. ML052710224).

The NRC inspection team observed that LTI's use of software is limited to the software contained in the equipment used to perform calibration and testing. The software is used to record data, calculate calibration results based on acceptance criteria, and produce data for calibration reports. The software is verified and validated by LTI when the equipment is

purchased, through conducting hand calculations in parallel with use of the equipment and the results are compared. LTI has a process in place to ensure that each software version is validated prior to use and if a discrepancy is identified during validation or during the use of the software, LTI will initiate a nonconformance report. LTI has not received any error notices, nor have they had any failures with the software associated with the equipment used.

The NRC inspection team also discussed the limited scope commercial-grade dedication program with LTI's management and technical staff. The attachment to this inspection report lists the documents reviewed by the NRC inspection

b. Observations and Findings

No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that LTI is implementing their limited scope commercial-grade dedication program in accordance with the regulatory requirements of Criterion III and Criterion VII of Appendix B to 10 CFR Part 50. Based on the limited sample of documents reviewed, the NRC inspection team also determined that LTI is implementing its policies and procedures associated with the commercial-grade dedication program. No findings of significance were identified.

4. Control of Special Processes

a. Inspection Scope

The NRC inspection team reviewed LTI's policies and implementing procedures that govern the control of special processes to determine compliance with the regulatory requirements of Criterion IX, "Control of Special Processes," of Appendix B to 10 CFR Part 50, Section V, "Nondestructive Examination," of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, 2015 Edition; and the American Society for Nondestructive Testing (ASNT) SNT-TC-1A, "Personnel Qualification and Certification in Nondestructive Testing."

The NRC inspection team reviewed for adequacy the procedures used for nondestructive examinations (NDE) and observed that they contained the applicable technical information and addressed the quality requirements. In addition, the NRC inspection team selected a sample of NDE reports for safety-related components and observed that the NDEs were performed by qualified personnel, using qualified procedures in accordance with the requirements of Section V of the ASME B&PV Code and ASNT SNT-TC-1A, and used calibrated equipment.

The NRC inspection team reviewed LTI's procedure for certification and qualification of magnetic particle (MP) and liquid penetrant (LP) examination personnel and observed they were consistent with the latest revision of the ASNT SNT-TC-1A. The NRC inspection team reviewed the light meters used during MP and LP examinations and observed that they were identified with a calibration sticker and that the calibration records were current and within the specified range and frequency.

The NRC inspection team reviewed the training and qualification records for three of LTI's NDE Level III inspectors. The NRC inspection team observed that the inspectors' records indicate that the individuals had been trained and qualified in accordance with LTI's procedures, ASNT SNT-TC-1A, and the ASME B&PV Code. The NRC inspection team also reviewed all NDE personnel's annual vision test records and noted that they were current.

The NRC inspection team also discussed the control of special processes program with LTI's management and technical staff. The attachment to this inspection report lists the documents reviewed by the NRC inspection team.

b. Observation and Findings

No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that LTI is implementing its control of special processes program in accordance with the regulatory requirements of Criterion IX of Appendix B to 10 CFR Part 50. Based on the limited sample of documents reviewed, the NRC inspection team also determined that LTI is implementing its policies and procedures associated with the control of special processes program. No findings of significance were identified.

5. Test Control

a. Inspection Scope

The NRC inspection team reviewed LTI's policies and implementing procedures that govern LTI's testing activities to determine compliance with the regulatory requirements in Criterion XI, "Test Control," of Appendix B to 10 CFR Part 50.

The NRC inspection team reviewed a sample of test plans and laboratory procedures which showed that applicable customer specifications were translated correctly into test plans, procedures or instructions. The NRC inspection team reviewed a completed tensile, hardness, and chemical test for a carbon steel forged material; and a chemical composition analysis for stainless steel material. The NRC inspection team observed that the tests were performed in accordance with the test procedures and applicable standards.

The NRC inspection team also discussed the test control program with LTI's management and technical 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 LTI is implementing its test control program in accordance with the regulatory requirements of Criterion XI of Appendix B to 10 CFR Part 50. Based on the limited sample of documents reviewed, the NRC inspection team also determined that LTI is implementing its policies and procedures associated with the test control program. No findings of significance were identified.

6. Control of Measuring and Test Equipment

a. Inspection Scope

The NRC inspection team reviewed LTI's policies and implementing procedures that govern the measuring and test equipment (M&TE) program to determine compliance with the requirements of Criterion XII, "Control of Measuring and Test Equipment," of Appendix B to 10 CFR Part 50.

For a sample of M&TE, the NRC inspection team observed that the M&TE had the appropriate calibration stickers and current calibration dates, including the calibration due date. The NRC inspection team also noted that the M&TE had been calibrated, adjusted, and maintained at prescribed intervals prior to use. In addition, the calibration records reviewed by the NRC inspection team indicated the as-found or as-left conditions, accuracy required, calibration results, calibration dates, and the due dates for recalibration.

The NRC inspection team performed a walk-down to observe that M&TE was labeled, handled, and stored in a manner that indicated the calibration status of the instrument and ensured its traceability to calibration test data.

The NRC inspection team discussed the M&TE program with LTI's management and technical 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 LTI is implementing its M&TE program in accordance with the regulatory requirements of Criterion XII of Appendix B to 10 CFR Part 50. Based on the limited sample of documents reviewed, the NRC inspection team also determined that LTI is implementing its policies and procedures associated with the M&TE program. No findings of significance were identified.

7. Corrective Action/Nonconformance

a. Inspection Scope

The NRC inspection team reviewed LTI's policies and implementing procedures that govern the nonconformances and corrective action programs to determine compliance with the requirements of Criterion XV, "Nonconforming Materials, Parts, or Components," and Criterion XVI, "Corrective Action," of Appendix B to 10 CFR Part 50.

The NRC inspection team reviewed a sample of nonconformance reports (NCRs) to verify that LTI: (1) dispositioned the NCRs in accordance with the applicable procedures, (2) documented an appropriate technical justification for various dispositions, and (3) took adequate corrective action with regard to the nonconforming items. The NRC inspection team also verified that NCRs provide a link to the 10 CFR Part 21 program.

The NRC inspection team also reviewed a sample of corrective action reports (CARs) to determine if conditions adverse to quality were promptly identified, corrected and provided a link to 10 CFR Part 21. The NRC inspection team observed that the CARs provided: (1) a description of the conditions adverse to quality, (2) an analysis of the cause of these conditions and the corrective actions taken to prevent recurrence, as applicable, (3) direction for review and approval by the responsible authority, and, (4) a description of the current status of the corrective actions.

The NRC inspection team also discussed the corrective action and nonconformances with LTI's management and technical 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 LTI is implementing its corrective action and nonconformance programs in accordance with the regulatory requirements of Criterion XV and Criterion XVI of Appendix B to 10 CFR Part 50. Based on the documents reviewed, the NRC inspection team also determined that LTI is implementing its policies and procedures associated with corrective actions and nonconformance programs. No findings of significance were identified.

8. Audits

a. Inspection Scope

The NRC inspection team reviewed LTI's policies and procedures that govern the external and internal audits to determine compliance with the requirements of Criterion XVIII, "Audits," of Appendix B to 10 CFR Part 50.

The NRC inspection team reviewed a sample of internal and external audit reports and observed that the audits were performed by qualified auditors by reviewing a sample of training and qualification records of LTI's lead auditors and that auditing personnel had

completed all the required training and had maintained the applicable qualification and certification in accordance with LTI's policies and procedures. In addition, the NRC inspection team reviewed a sample of internal audit reports to determine if the reports included: an audit plan, any findings identified, adequate documentation of objective evidence of compliance with the applicable requirements, and a review by LTI's responsible management. Furthermore, the NRC inspection team observed that the internal audits were performed by personnel not having direct responsibilities in the areas being audited. The NRC inspection team noted that audit findings were dispositioned and corrective actions were implemented to correct the issues identified.

The NRC inspection team also discussed the audits program with LTI's management and technical 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 LTI is conducting its external and internal audits in accordance with the regulatory requirements of Criterion XVIII of Appendix B to 10 CFR Part 50. Based on the limited sample of documents reviewed and interviews conducted, the NRC inspection team determined that LTI is implementing its policies and procedures associated with internal audits. No findings of significance were identified.

9. Entrance and Exit Meetings

On September 4, 2018, the NRC inspection team discussed the scope of the inspection with Mr. Michael McVaugh, Chief Executive Officer/President, and other members of LTI's management and technical staff. On September 7, 2018, the NRC inspection team presented the inspection results and observations during an exit meeting with Mr. McVaugh, and other members of LTI'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

Name	Title	Affiliation	Entrance	Exit	Interviewed
Michael McVaugh	Chief Executive Officer/President or	Laboratory Testing, Inc. (LTI)	X	X	
Brandon McVaugh	Director of Operations	LTI	X	X	
Brad McVaugh	Machine Shop Manager	LTI	X	X	
Jonathan Faia	Director of Quality	LTI	X	X	X
Eric Baum	Business Development Manager	LTI	X		
Sherri Scheifele	Quality Assurance (QA) Specialist	LTI	X	X	X
Heather Heathwood	QA Coordinator/Lead Auditor	LTI			X
Rick Gaynor	Metrology Manager	LTI			X
Lee Dilks	Destructive Testing Manager/Chemistry/ Metallography	LTI			X
Edward Deeny	QA Manager	LTI	X	X	X
Jay Kohr	Calibration Technician Level II	LTI			X
Donna Schooner	Calibration Technician Level II	LTI			X
Bob Hall	Calibration Technician Level I	LTI			X
Don Myers	Level II Liquid Penetrant (LP) Testing Supervisor	LTI			X
Rick Stuart	Level II Magnetic Particle (MP) Testing Supervisor	LTI			X
Steve Fretz	Mechanical Testing Technician	LTI			X

Name	Title	Affiliation	Entrance	Exit	Interviewed
Tyler Snyder	Manufacturing Engineer	LTI			X
Ashley Phillips	Chemistry & Corrosion Coordinator	LTI			X
Eva Pellow	Metrology/Calibration Lead Technician	LTI			X
Terry Baker	Metrology/Calibration Technician	LTI			X
Eddie Phillips	Metrology Specialist	LTI			X
Collin Jones	IT Support Specialist	LTI			X
Paul Szczepaniak	Mechanical Lab Manager	LTI			X
Andy Giordano	Supervisor Mechanical Shop	LTI			X
Lenny Flowers	Machine Operator	LTI			X
Steve Walmsley	Level II Ultrasonic Testing	LTI			X
Edgardo Torres	Inspector/Team Lead	NRC	X	X	
Jonathan Ortega-Luciano	Inspector	NRC	X	X	
Yamir Diaz-Castillo	Inspector	NRC	X	X	
Thomas Herrity	Inspector	NRC	X	X	
Chantal Gélinas	Inspector	Canadian Nuclear Safety Commission	X	X	

2. INSPECTION PROCEDURES USED

Inspection Procedure (IP) 36100, “Inspection of 10 CFR Part 21 and Programs for Reporting Defects and Noncompliance,” dated February 13, 2012.

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

None.

4. DOCUMENTS REVIEWED

Policies and Procedures

LP-E165, “General Procedure for Fluorescent Penetrant Examination in Accordance with ASTM E-165,” Revision 6, dated July 22, 2016

LTI-AQMR, “Assuring Quality of Metrology Results,” Revision 2, dated February 11, 2009

LTI-AQTR, “Assuring Quality of Test Results,” Revision 1, dated February 23, 2015

LTI-CAR, “Procedure for Corrective Action,” Revision 15, dated October 18, 2013

LTI-COMP, “Resolution of Customer Complaints,” Revision 2 dated June 9, 2014

LTI-EXT-AUD, “Procedure for Performance of External Audits and Surveys,” Revision 6, dated June 4, 2015

LTI-INT-1, “Procedure for Performance of Internal Audits,” Revision 13, dated September 30, 2016

LTI-LP-TO, “Training Outline for Liquid Penetrant Testing,” Revision 5, dated September 22, 2010

LTI-MANCTRL, “Control of the Quality System Program Manual,” Revision 6, dated August 8, 2014

LTI-MP-TO, “Training Outline for Magnetic Particle Testing,” Revision 5, dated September 22, 2010

LTI-Nonconformance, “Procedure for Reporting and Control of Nonconforming Testing and/or Calibration Items,” Revision 8, dated January 13, 2015

LTI-Procedure, “Preparation of Documents,” Revision 9, dated May 18, 2016

LTI-QUAL-NQA1, “Qualification and Certification of Inspection and Testing Personnel,” Revision 4, dated February 29, 2012

LTI-SAMPLING, “Procedure for Sampling,” Revision 0, dated March 17, 2010

LTI-SCS-RAL, “Subcontracted Calibration Services from Recognized Accredited Laboratories,” Revision 5, dated January 30, 2014

LTI-SWQA-1, “Procedure for Validation of Computer Software,” Revision 4, dated September 30, 2010

LTI-QUAL-NQA1, “Qualification and Certification of Inspection and Testing Personnel,” Revision 4, dated February 29, 2012

LTI-VT-TO, “Training Outline for Visual Inspection,” Revision 1, dated April, 9, 2007

CP-PHM-1, “Calibration Procedure for pH Meters,” Revision 1, dated June 1, 2018

CP-PR-PP-1, “Calibration Procedure for Plain Cylindrical Plugs and Rings,” Revision 3, dated May 11, 2015

CP-STP-1, “Procedure for Calibration of Straight Thread Plug Gages (Working Plugs and Setting Plugs),” Revision 3, dated November 28, 2016

CP-VC-1, “Calibration Procedure for Vernier, Dial, and Electronic Calipers,” Revision 5, dated May 23, 2017

PI-1, “Purchasing Instructions for Materials and Services,” Revision 15, dated June 2, 2016

PI-1 Addenda CGD, “Commercial Grade Items/Services/Software,” Revision 3, dated December 8, 2016

PI-1 Addenda CGD LP Materials, “Addenda for Commercial Grade Dedication for the Purchasing of Liquid Penetrant Materials,” Revision 1, dated July 7, 2017

PI-1 Addenda Quality PO, “Procedure for Creating Quality Purchase Orders for Procurement of Reference Standards, Outside Services, Calibration and Repair Services,” Revision 0, dated September 6, 2011

PQ-AUD-1, “Procedure for Qualification and Certification of Auditors and Lead Auditors in Accordance with ASME/ANSI N45.2.23 and ASME/NQA-1,” Revision 2, dated December 13, 2011

PQ-MAS-1, “Procedure for Personnel Qualification,” Revision 12, dated February 1, 2013

PQ-NDT-1, “Nondestructive Examination Personnel Qualification and Certification Written Practice in Accordance with SNT-TC-1A, ASME Section III, V, VIII and T9074-AS-GIB-010/271,” Revision 28, dated October 5, 2017

PQ-410-1, “Nondestructive Examination Personnel Qualification and Certification Written Practice in Accordance with NAS-410, Rev.4,” Revision 22, dated October 3, 2017

QC-MTL-NDT, “Material Control and Maintenance of Traceability for Nondestructive Testing of Pipe, Tube, Bar, Plate, etc.,” Revision 3, dated August 11, 2015

RI-1, “Procedure for Receiving, Order Entry, Identification, and Traceability,” Revision 23, dated February 23, 2017

Specimen Preparation – Mechanical Testing Sample Procedure, Revision 15, dated August 5 2016

86-LP-C, “Liquid Penetrant Calibration Procedure,” Revision 24, dated June 6, 2017

86-MP-C, “Magnetic Particle Inspection Equipment Calibration, Evaluation and Quality Control,” Revision 22, dated May, 31, 2017

10CFR21 COMPLIANCE, “Reporting of Defects and Nonconformance in accordance with 10 CFR 21,” Revision 9, dated June 7, 2012

Purchase Orders

Purchase Order (PO) No.17-39915-46OS for calibration services of two Rockwell hardness test blocks, dated October 31, 2017

PO No. 18-02156-46OS for calibration services of an 8-inch qwikcheck gage, dated May 8, 2018

PO No. 18-03114-46CAL for calibration services of a Starrett angle block set, dated June 27, 2018, PO No. 18-12380-41OS for ultrasonic testing (UT) reference standards, dated April 14, 2018

PO No. 18-19198-310OS for UT reference standards, dated June 21, 2018

PO No. 10-23-17-45S for chemistry standards, dated October 23, 3017

PO No. 12-15-17-45S for chemistry standards, dated December 15, 2017

PO No. 18-00218-46os for calibration services of a light meter, dated January 16, 2018

PO No. 18-00665-46OS for calibration services of a digital radiometer and a contour probe, dated February 20, 2018

PO No. 18-027640 for Tensile test, Hardness Test and AES Chemical test, dated August 24, 2018

PO No. X-16982, Pressure gage calibration 1500 lbs., dated August 24, 2018

PO No. 18-0727577, Chemical Analysis, dated August 28, 2018

PO No. 0024305, Liquid penetrant, dated August, 24 2018

Certificates

Calibration Certificate No. FAI004-17-10-39915-1 for a Rockwell Test Block, Instrument No. 60041077, calibrated on November 6, 2017

Calibration Certificate No. FAI004-17-10-39915-2 for a Rockwell Test Block, Instrument No. 60041079, calibrated on November 6, 2017

Calibration Certificate No. FAI004-18-05-02156-1 for a qwikcheck gage, Instrument No. 60041912, calibrated on May 30, 2018

Calibration Certificate No. DNC001-18-06-03114-1 for a Starrett angle block set, Instrument No. 60012504, calibrated on August 4, 2018

Calibration Certificate No. CMM002-18-01-00218-1 for a light meter, Instrument No. 60023266, calibrated on January 23, 2018

Calibration Certificate No. digital radiometer, Instrument No. 60056003, calibrated on February 23, 2018

Calibration Certificate No. 60056004, Instrument No. 60056004, calibrated on February 23, 2018

Audit Reports

LTI's Internal Audit Report, audit performed May 31 - June 1, 2017

LTI's Internal Audit Report, audit performed May 15 - 16, 2018

2017-PH-001, External audit report, dated April 19, 2017

2017-VHG-01, External audit report, dated September 13, 2017

WMTR-16, External audit report, dated May 8, 2016

Training Records

Nondestructive Examination Personnel Qualification Record for Level III and Level II personnel.

Certification records for Level I and Level II inspectors.

Miscellaneous Documents

Laboratory Testing Inc.'s (LTI) Quality Systems Program Manual, Revision 20, dated December 12, 2012

LTI's Approved Vendors List

Commercial-grade survey report dated May 21, 2018

Computer Software Validation List

Software Validation Forms and associated testing date for the following equipment:

- Tinius Olsen Tensile Machine
- ATS Stress Rupture Frame
- 250kN Fatigue Frame
- Mahr Federal Gage

Customer Complaint Report (CCRs)

- CCR-17-03
- CCR-17-04
- CCR-17-11
- CCR-17-18
- CCR-17-20
- CCR-17-22
- CCR-18-07
- CCR-18-08
- CCR-18-15
- CCR-18-20
- CCR-18-24

Corrective Action Requests (CARs)

- CAR 17-01
- CAR 17-02
- CAR 17-03
- CAR 17-04
- CAR 17-05
- CAR 17-09
- CAR 17-10
- CAR 17-11
- CAR 17-15
- CAR 17-16
- CAR 17-19
- CAR 17-20
- CAR 17-21
- CAR 17-22,
- CAR 17-23
- CAR 17-24
- CAR 17-25
- CAR 18-0
- CAR 18-04
- CAR 18-07
- CAR 18-13
- CAR 18-14
- CAR 18-15
- CAR 18-17

- CAR 18-18
- CAR 18-19
- CAR 18-21
- CAR 18-26
- CAR 18-27a
- CAR 18-27b
- CAR 18-28
- CAR 18-29
- CAR 18-30

Nonconformance Reports (NCRs)

- NCR 17-01
- NCR 17-02
- NCR 17-03
- NCR 17-04
- NCR 17-05
- NCR 17-06
- NCR 18-01

Corrective Action Requests (CARs) opened during the inspection

- CAR-18-43, Personnel Qualification Record not Renewed on Scheduled Date, dated September 5, 2018
- CAR-18-44, External Audits lacked content and did not include enough objective evidence, September 6, 2018
- CAR-18-45, Hardness test performed did not comply with material specification requirement, dated September 7, 2018
- CAR-18-46, CAR-18-21 was not implemented on time and there was no follow-up performed, dated September 7, 2018
- CAR-18-47, NCR 17-05 10CFR21 review did not include enough objective evidence to explain why there was no deficiency, dated September 7, 2018