

W.Bradley Electric, Inc.
Construction
Quality Assurance/Quality Control Plan

[ProjectName]
[ProjectNumber]

Version: 20150120

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PROJECT-SPECIFIC ELECTRICAL QUALITY PLAN

TABLE OF CONTENTS

A. W.Bradley Electric, Inc. Quality Policy.....	3
B. Key Elements of the Electrical Quality Plan	4
C. Project Quality Coordination and Communication	7
D. Project QC Personnel	11
Project QC Job Position Assignments	11
Duties, Responsibilities, and Authority of QC Personnel.....	11
Quality Responsibilities	11
Project QC Organization Chart	14
E. Personnel Qualifications	15
Personnel Certification Requirements	16
Training.....	16
F. Qualification of Third Party Inspection/Testing Companies and Subcontractors and Suppliers	18
Qualification of Testing Laboratories	18
G. Electrical Project Quality Specifications	20
Compliance with Industry Electrical Standards	21
H. Electrical Inspection and Test Plan.....	23
Inspection and Testing Electrical Standards.....	24
Control of Inspection, Measuring, and Test Equipment.....	25
I. Electrical Work Task Quality Inspections.....	27
Work Tasks Series of Inspections	27
Daily Quality Control Report.....	27
J. Quality Control of Corrections, Repairs, and Nonconformances	31
K. Project Completion Inspections	33
L. Quality Assurance Surveillance.....	35
M. Control of Quality Records and Documents	37
N. Servicing and Warranty	38

A. W.BRADLEY ELECTRIC, INC. QUALITY POLICY

W.Bradley Electric, Inc. is committed to quality. Our objective is to safely deliver 100 percent complete construction projects that meet all contract and customer expectations the first time, every time. Our commitment to quality means:

- Every W.Bradley Electric, Inc. employee is responsible for fully implementing and complying with all provisions of the W.Bradley Electric, Inc. quality system.
- Our quality standards meet or exceed all applicable regulations, codes, industry standards, and manufacturer specifications as well as with our customers' contract and individual requirements.
- We stand behind our work. We inspect every work task to assure conformance to the project requirements. Should problems be found, we correct them.
- We are always improving. All employees receive regular training to make systematic improvements to remove quality risks and enhance quality performance.

We conduct our work with dignity and respect for the customer, our subcontractor and supplier partners, and ourselves.

B. KEY ELEMENTS OF THE ELECTRICAL QUALITY PLAN

Key elements of the W.Bradley Electric, Inc. Quality Assurance/Quality Control Plan include:

Quality Management and Responsibilities. W.Bradley Electric, Inc. fully integrates its quality management system into the organizational structure and performance management systems for each project. We:

- Maintain a documented quality system consisting of a quality manual with policies and procedures.
- Tightly control exceptions to the quality system so company standards are applied uniformly to every project
- Systematically maintains quality system documents and records.

Quality Control Personnel. W.Bradley Electric, Inc. fully integrates its quality management system into the organizational structure and performance management systems for each project. We:

- Appoint a Quality Manager, Superintendent, and Project Manager to each project, each with well-defined quality responsibilities and the authority to carry them out.
- Have well-defined quality responsibilities for every employee with specific quality responsibilities for key job positions.
- Plan project quality records and documentation that will be maintained.
- Tightly control exceptions to the quality system so company standards are applied uniformly to every project
- Enforce policies that monitor work conditions before and during work so that quality results are assured.

Project Quality Coordination and Communication. W.Bradley Electric, Inc. tightly controls the construction process to ensure quality results. We:

- Plan quality communications through meetings, reporting requirements, and points of contact.
- Have a project startup meeting to communicate project goals and expectations.
- Conduct preparatory meetings in advance of each scheduled work task to communicate requirement details and coordinate work activities.

Quality Assurance Surveillance. W.Bradley Electric, Inc. audits the quality system to assure it is operating effectively. We:

- Audit the operation of the quality system on each project for conformance to the Project Quality Assurance/Quality Control Plan and the W.Bradley Electric, Inc. Quality System requirements.
- Conduct annual company-wide audits to evaluate effectiveness of the [CompanyName] Quality System and improve its operation.

Employee Qualifications. W.Bradley Electric, Inc. ensures that only knowledgeable, capable employees carry out the planning, execution, and control of our projects. We:

- Identify employee qualification requirements, including licensing requirements, training qualifications, responsibilities, and authority for each job position.
- Train field employees on quality standards and procedures for their job position.
- Validate employee capabilities before they are assigned to carry out quality job responsibilities.

- Review ongoing employee qualifications and evaluate quality practices and performance as part of the employee performance management process.

Qualification of Subcontractors and Suppliers. W.Bradley Electric, Inc. purchases only from subcontractors and suppliers that consistently meet W.Bradley Electric, Inc. standards for quality. We:

- Clearly define outside organization qualification requirements including licensing requirements, compliance with specific quality standards, quality responsibilities, qualification of personnel and quality improvement processes.
- Validate capabilities to meet project quality requirements at planned production levels.
- Verify ongoing quality performance.

Project-Specific Quality Standards. W.Bradley Electric, Inc. clearly defines standards and specifications that apply to each project. We:

- Identify all relevant regulations, codes and industry standards.
- Identify specifications for materials that meet contract as well as regulatory requirements.
- Specify quality and certification requirements for materials and equipment that affect quality.
- Identify special requirements for calibration of quality measuring devices.
- Supplement the contract and published standards with W.Bradley Electric, Inc. quality standards as required to reduce quality risks and assure quality results.

Inspections and Test Plan. W.Bradley Electric, Inc. quality inspection processes ensure that all work activities comply with the documented standards and specifications. We:

- Identify inspections and tests required by contract specifications and industry standards.
- Record the result of each quality inspection and test.
- Use independent laboratories certified by nationally recognized accreditation agencies

Work Task Quality Inspections. W.Bradley Electric, Inc. quality inspection processes ensure that all work activities comply with the documented standards and specifications. We:

- Identify required quality inspections and tests at key milestones during the project.
- Identify each work task that is subject to a series of quality inspections and quality control activities
- Conduct a series of quality inspections for each construction task: before work begins, at first article completion, while work is in process, and at completion.
- Inspect all materials before use.
- Record the result of each work task inspection.

Quality Control of Corrections and Nonconformances. W.Bradley Electric, Inc. nonconformance control processes ensure that we prevent all nonconformances from cover-up, inadvertent use, and corrected. We:

- Mark the item to clearly identify it for correction.
- Make corrections in a timely manner and validate their effectiveness.
- Require customer approval before accepting any nonconforming items.
- Identify nonconformance items for future prevention.
- Address nonconformance causes systematically by updating standards and specifications; improving process and employee capabilities; setting new requirements for outside organizations; and enhancing the effectiveness of field and third party quality inspections.
- Validate actions taken to prevent nonconformances and their effectiveness.

Project Completion Inspections. W.Bradley Electric, Inc. conducts a series of inspection near the completion of major milestones and end of the project to assure that the contracted work is completed to specifications. We:

- Perform a rigorous inspection by senior managers independent of production.
- Correct any deviations and reinspect prior to submittal to the customer for final review.
- Participate in the customer's final inspection quickly address any issues found.

C. PROJECT QUALITY COORDINATION AND COMMUNICATION

W.Bradley Electric, Inc. has regular, planned communications with customers, subcontractors, and suppliers to coordinate quality expectations, priorities, activities, and improvements.

The process begins when we hold a pre-construction meeting where we discuss how quality of the project will be controlled and the quality responsibilities of key personnel. We also coordinate a schedule for weekly production meetings, monthly quality management meetings, and protocols for telephone and internet communications.

Throughout the project, W.Bradley Electric, Inc. holds preparatory meetings prior to the start of upcoming milestones, tasks, or phases of work. These meetings are attended by key company, subcontractor personnel responsible for carrying out, supervising, or inspecting the work, and interested customer representatives. We review quality requirements, coordinate quality inspections and hold points. In the process, we listen to each stakeholder to understand their concerns for critical details. We add the critical details to inspection checklists. We also train production personnel on these details in weekly and toolbox talk meetings.

[CompanyName] weekly team toolbox meetings deploy findings of the preparatory meeting to field personnel. The venue is used to train personnel on technical requirements, reinforce critical details for heightened awareness, and institute improvements to work methods. It is also a forum for team communications and coordination.

**W.Bradley Electric, Inc.
Point Of Contact List**

Version 20150120

Project ID	Project Name	Preparer	Date	
[ProjectNumber]				

Company	Name	Job Position(s)	Phone Contact Numbers	Email
W.Bradley Electric, Inc.				
W.Bradley Electric, Inc.	[ProjectManagerName]	Project Manager		
W.Bradley Electric, Inc.	Dan Hickey	Field Operations Manager		
W.Bradley Electric, Inc.	[QualityManagerName]	Quality Manager		
W.Bradley Electric, Inc.	Ken DeGraca	Safety Director		

**W.Bradley Electric, Inc.
Project Quality Communications Plan**

Version 20150120

Project ID	Project Name	Preparer	Date
[ProjectNumber]	[ProjectName]		

Distribution of project organization chart and assigned responsibility and authority of the Project Manager, Quality Manager, and Superintendent:

Points of contact list distribution:

Project startup meeting participants, date, location:

Work task quality plan meeting participants, nominal location:

Weekly project communication meeting participants, and nominal day of week, time, and location:

Daily quality report distribution, frequency, and due date:

Monthly project quality status report distribution and due date:

Distribution of quality inspection and test records, and due date:

Nonconformance report distribution and customer approval authority:

Location of project quality records storage and point of contact for records access:

Nominal frequency of project quality audits and the job position that will conduct the audits:

Warehousing of customer supplied materials/equipment location, security, damage prevention.

D. PROJECT QC PERSONNEL

W.Bradley Electric, Inc. ensures that quality control personnel remain independent from the pressures of production through our organizational lines of authority as defined by our QC Organization Chart.

The President appoints a Quality Manager, Superintendent, and Project Manager, and then assigns each with specific quality responsibilities and authorities of their job position.

PROJECT QC JOB POSITION ASSIGNMENTS

Table D-1 shows the job positions assigned to personnel on this project.

Table D-1

QC Personnel Name	Job Position
Field Operations Manager	Dan Hickey
[QualityManagerName]	Quality Manager
Ken DeGraca	Safety Director

DUTIES, RESPONSIBILITIES, AND AUTHORITY OF QC PERSONNEL

The President has overall responsibility for implementation safety including performance and results of the W.Bradley Electric, Inc. Quality System, including quality on this project.

QC personnel assigned to this project have the duties, responsibilities and authority defined by their job position.

Key project personnel have accepted their appointments and declared their ability to carry out the appointments.

QUALITY RESPONSIBILITIES

PROJECT QUALITY MANAGER: QUALITY DUTIES, RESPONSIBILITIES, AND AUTHORITY

The Quality Manager is responsible for ensuring the overall effectiveness of the Quality System for a specific project. Regardless of other duties, the Quality Manager is responsible for:

- Planning project quality controls required by the W.Bradley Electric, Inc. quality systems and contract requirements
- Fully implementing all provisions of the W.Bradley Electric, Inc. Quality System and related documents on the project.
- Manage the operation of the W.Bradley Electric, Inc. Quality System on the project.

- Implement and manage all phases of quality control
- Communicating project-specific quality requirements to all affected departments, subcontractors and suppliers, and customers
- Ensuring that the Quality System is established and implemented by persons doing work that impacts quality
- Monitoring progress of activities
- Ensuring that the Quality System is maintained
- Acting as the project quality liaison with parties outside the company on matters relating to quality
- Reporting to senior management on performance of the Quality System, including needed improvements
- Review and approval of all project Quality System records
- Review and approval of project quality-related contract submittals
- Managing all project inspection and quality control activities
- Controlling corrective actions
- Resolving quality nonconformances

The Quality Manager has the authority to:

- Stop work when continuing work may adversely affect quality or cover up a defect
- Prevent the use of equipment or materials that may adversely affect quality or cover up a defect
- To direct the removal and replacement of any non-conforming work, equipment, or material by W.Bradley Electric, Inc., any subcontractor, or any supplier.
- Suspend work and/or supply of materials by any staff member, subcontractor personnel, or supplier as deemed necessary to assure quality results.

Alternate Quality Managers acting in the role of the project Quality Manager has the same quality duties, responsibilities and authority as the project Quality Manager.

SUPERINTENDENT: QUALITY DUTIES, RESPONSIBILITIES, AND AUTHORITY

A Superintendent verifies that work performed by subcontractors and suppliers and W.Bradley Electric, Inc. work crews conforms to W.Bradley Electric, Inc. quality standards. The President appoints one or more Superintendents for each project.

A Superintendent has specific responsibilities for:

- Ensuring that work meets government regulatory and code requirements, customer requirements, contract requirements, contract technical specifications, contract drawings, approved contract submittals, and company quality standards and specifications
- Ensuring that subcontractors and suppliers begin work in accordance with W.Bradley Electric, Inc. start-work policies
- Ensuring that subcontractors and suppliers receive a notice to work only when conditions will not adversely affect quality results
- Conducting quality inspections, tests, and recording findings
- Accurately assessing subcontractor quality and on-time performance
- Ensuring that quality standards are achieved before approving subcontractor or work crew completion of work

The Superintendent has the authority to:

- Stop work when continuing work may adversely affect quality or cover up a defect
- Prevent the use of equipment or materials that may adversely affect quality
- Direct the removal or replacement of any non-conforming work, equipment, or material

- Suspend work and/or supply of materials as deemed necessary to assure quality results

Alternate Superintendent has the same quality duties, responsibilities and authority as the Superintendent. Multiple Superintendents may be assigned to the project.

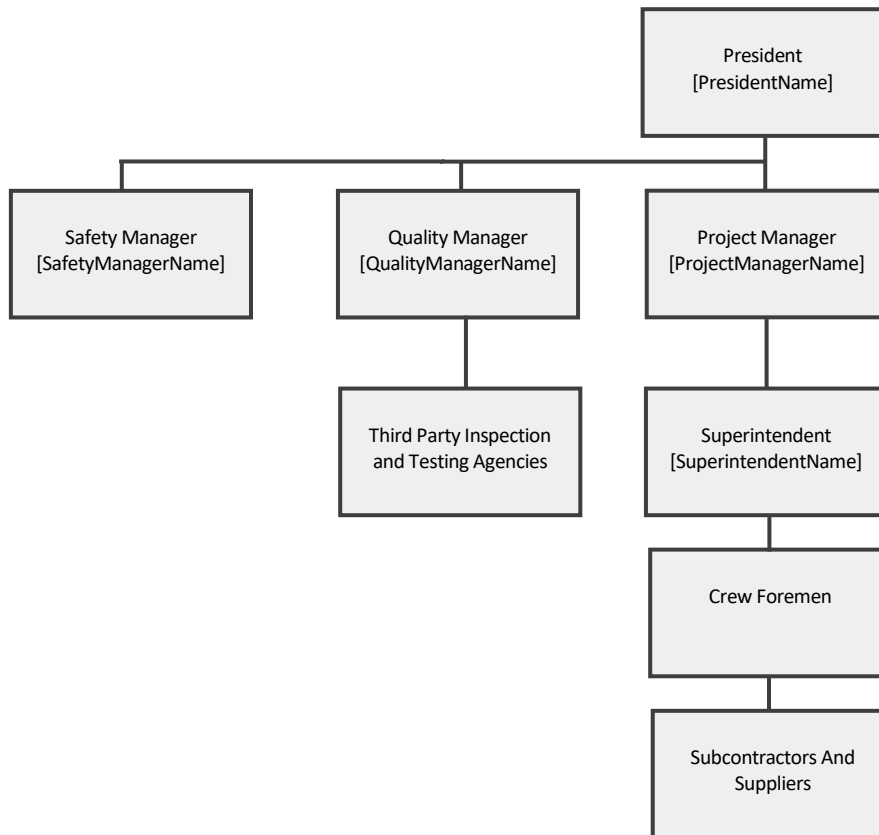
PROJECT QC ORGANIZATION CHART

The Project QC Organization Chart shows the QC organizational structure. The chart includes job positions along with the name of each person appointed to that position. Figure A-1 shows the QC Organization Chart for this project.

The President defines the organization chart for the project. The organizational chart includes job titles, names of assigned personnel, and organizational and administrative interfaces with the customer. The organization chart defines lines of authority as indicated by solid connection; dotted lines indicate lines of communication. The lines of authority preserve independence of quality control personnel from the pressures of production.

The President assesses the qualification requirements for each position on the project organization chart, qualifications of each person, and then appoints only qualified persons to the project organization.

Figure A-1



E. PERSONNEL QUALIFICATIONS

W.Bradley Electric, Inc. ensures that only knowledgeable, capable employees carry out the planning, execution, and control of the project.

We train our employees on quality standards and procedures based on project requirements as well as their job positions. Then we validate their capabilities before they are assigned to carry out their quality job responsibilities on the project. Ongoing monitoring of performance continually validates qualifications of each employee.

The Quality Manager qualifies employee capabilities to ensure that they are capable of completely carrying out their assigned quality responsibilities including the following capabilities:

- Knowledge of Company quality standards
- Knowledge of job responsibilities and authority
- Demonstrated skills and knowledge
- Demonstrated ability
- Demonstrated results
- Required training
- Required experience

The Quality Manager also evaluates independent contractor personnel on the same standards that apply to employees.

PERSONNEL CERTIFICATION REQUIREMENTS

Personnel certifications are required for the following:

Personnel Certifications and Licenses			
Division	Certification or License Title	Reference Standard No.	Reference Standard Title
26	Electrical testing technician	(NETA) / (NICET)	International Electrical Testing Association / National Institute for Certification in Engineering Technologies
27	Telecom. Installers	SCTE	Society of Cable Telecommunications Engineers
27	Telecom. Installers	TIA	Telecommunications Industry Association
27	Telecom. Installers	iNARTE	International Association for Radio, Telecommunications and Elettromagnetics, Inc.
28	Electricians	ABC	Associated Builders and Contractors
28	Electricians	ETI	Electrical Training Institute
28	Electricians	IBEW	International Brotherhood of Electrical Workers
28	Electricians	IEC	Independent Electrical Contractors Association
28	Electricians	NECA	National Electrical Contractors Association

TRAINING

We train our employees on quality standards and procedures based on project requirements as well as their job positions. Then we validate their capabilities before they are assigned to carry out their quality job responsibilities on the project. Ongoing monitoring of performance continually validates qualifications of each employee.

After a training activity is completed, W.Bradley Electric, Inc. keeps of record of both the training activity and the training participants.

Project Personnel Resumes

F. QUALIFICATION OF THIRD PARTY INSPECTION/TESTING COMPANIES AND SUBCONTRACTORS AND SUPPLIERS

W.Bradley Electric, Inc. evaluates outside organizations to ensure that the quality of their materials or services will meet contract requirements, and that they have the capacity and equipment to carrying out the contract on schedule.

Our subcontractors and suppliers meet the project requirements by either 1) working under the W.Bradley Electric, Inc. Quality System or 2) operating their own quality program as long as it meets W.Bradley Electric, Inc. Quality System requirements.

Ongoing monitoring of performance continually validates qualifications of each subcontractor and supplier.

Key outside organizations that will be used on this project are listed on the Subcontractor and Supplier List form. A Subcontractor and Supplier List form exhibit is included in this subsection. The qualifications of listed suppliers have been verified.

QUALIFICATION OF TESTING LABORATORIES

Independent laboratories performing tests or quality inspections have additional requirements for certification by a nationally recognized testing accreditation organization as appropriate for the scope of the inspection or test:

- NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
- NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- The American Association of State Highway and Transportation Officials (AASHTO)
- International Accreditation Services, Inc. (IAS)
- U. S. Army Corps of Engineers Materials Testing Center (MTC)
- American Association for Laboratory Accreditation (A2LA) program

**W.Bradley Electric, Inc.
Project Subcontractor and Supplier List**

Version 20150120

Project ID	Project Name			Preparer/ Date
[ProjectNumber]	[ProjectName]			

Work Tasks	Subcontractor and Supplier Name	Description of Services	Quality Control Method (Not Applicable/ Subcontractor and Supplier QC/ [CompanyName] QC)	Remarks

G. ELECTRICAL PROJECT QUALITY SPECIFICATIONS

Fulfilling customer contract expectations is a primary objective of the W.Bradley Electric, Inc. Quality System. To ensure that customer expectations will be fulfilled, W.Bradley Electric, Inc. clearly defines the requirements for each contract before it is approved.

The Project Manager ensures that the information in customer contracts clearly defines customer expectations and that the necessary details are provided to set requirements for construction.

W.Bradley Electric, Inc. personnel and subcontractors and suppliers are accountable for compliance to standards-based written specifications.

To achieve expectations reliably and consistently, specifications are clearly spelled out, not only for results but also for processes. Specifications apply to materials, work steps, qualified personnel and subcontractors and suppliers, safe work rules, and environmental work conditions.

Standards ensure that results are specified rather than left to discretionary practices.

All W.Bradley Electric, Inc. construction activities comply with generally accepted good workmanship practices and industry standards.

COMPLIANCE WITH INDUSTRY ELECTRICAL STANDARDS

Codes that may apply to this project include those listed below.

Regulatory Codes and Industry Standards			
Division	Description	Reference Standard No.	Reference Standard Title
26	Splicing and general conductor installation	NFPA 70	National Electrical Code
26	Mounting height of wall-mounted outlet and switch boxes	ICC/ANSI A117.1	Accessible and Usable Buildings and Facilities
26	Install Control devices and protective devices	NFPA 70	National Electrical Code
26 27 28	Grounding and bonding requirements	NFPA 70	National Electrical Code
26	Workmanship	NFPA 70	National Electrical Code
26	Telecommunications grounding	TIA-569	Commercial Building Standard for Telecommunications Pathways and Spaces
26	Telecommunications pathways	TIA J-STD-607	Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications
26	Warning Sign placement	NFPA 70E	Standard for Electrical Safety in the Workplace
26	Lightning Protection installation	NFPA 780	Standard for the Installation of Lightning Protection Systems
27	Grounding of systems	IEEE 142	Recommended Practice for Grounding of Industrial and Commercial Power Systems
27	System electrical installation	NFPA 70	National Electrical Code
27	Cables not installed in conduit or wireways	NFPA 70	National Electrical Code
27	Cable tray installation	NEMA VE 2	Cable Tray Installation Guidelines
27	Preparation of record drawings including documentation on cables and termination hardware	TIA/EIA-606	Administration Standard for the Telecommunications Infrastructure
27	Installation of telecommunications cabling and pathway systems	TIA-568-C.1	Commercial Building Telecommunications Cabling Standard
27	Termination of UTP cables	TIA-568-C.1	Commercial Building Telecommunications Cabling Standard
27	Telecommunication system labeling	TIA/EIA-606	Administration Standard for the Telecommunications Infrastructure
27	Installation of equipment support frames	TIA-569	Commercial Building Standard for Telecommunications Pathways and Spaces
27	Telecommunication system grounding and bonding	TIA J-STD-607	Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications

W.Bradley Electric, Inc. Quality Assurance/Quality Control Plan

27	Underground fiber optic cabling installation	TIA-590	Standard for Physical Location and Protection of Below Ground Fiber Optic Cable Plant
27	Installation of signal and control circuits	NFPA 70	National Electrical Code
28	Conduit installation	NFPA 70	National Electrical Code
28	Installation of fire alarm and signaling systems	NFPA 72	National Fire Alarm and Signaling Code
28	Location of manual fire alarm stations	NFPA 101	Life Safety Code
28	Modification of an existing fire alarm system	NFPA 241	Standard for Safeguarding Construction, Alteration, and Demolition Operations
28	Installation of control panel	UL 864	Standard for Control Units and Accessories for Fire Alarm Systems

H. ELECTRICAL INSPECTION AND TEST PLAN

W.Bradley Electric, Inc. identifies inspections and tests that will be performed during the project. A test report is completed for each test. The test reports are then used for monitoring compliance to the plan and tracking results.

If independent laboratories are required to perform tests or quality inspections, we ensure that the laboratories are certified by a nationally recognized testing accreditation organization as appropriate for the scope of the inspection or test.

The Quality Inspection and Test Plan form lists inspections and tests (other than work task inspections) that will be performed on this project.

Results of inspections and tests will be recorded on the Inspection and Test Form.

Form exhibits are included as an exhibit in this subsection.

INSPECTION AND TESTING ELECTRICAL STANDARDS

Inspection and testing standards that may apply to this project include those listed below.

Inspection and Testing Standards			
Division	Description	Reference Standard No.	Reference Standard Title
26	Direct-current high-potential test for conductors	IEEE 400.2	Guide for Field Testing of Shielded Power Cable Systems Using Very Low Frequency (VLF)
26	Visual and mechanical inspections and electrical tests	NETA ATS	Standard for Acceptance Testing Specifications for Electrical Power Equipment and Systems
26	Ground rod resistance to ground	IEEE 81	Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System
27	Telecommunications cabling inspection, verification, and performance tests	TIA-568-C.1	Commercial Building Telecommunications Cabling Standard
27	Optical fiber end-to-end attenuation tests	TIA-568-C.3	Optical Fiber Cabling Components Standard
27	Fiber optic cables power budget and bandwidth	TIA-455-78-B	FOTP-78 Optical Fibres - Part 1-40: Measurement Methods and Test Procedures – Attenuation
27	Intercommunication system intelligibility test	ASA S3.2	Method for Measuring the Intelligibility of Speech Over Communication Systems
27	Optical time domain reflectometer tests	TIA-455-78-B	FOTP-78 Optical Fibres - Part 1-40: Measurement Methods and Test Procedures - Attenuation
28	Ground resistance testing	IEEE 81	Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System
28	Preliminary and acceptance testing	NFPA 72	National Fire Alarm and Signaling Code
28	Carbon monoxide detector testing	UL 2034	Single and Multiple Station Carbon Monoxide Alarms
28	Testing of duct smoke detectors	NFPA 72	National Fire Alarm and Signaling Code
28	Combustible gas detector preliminary and acceptance testing	ANSI/ISA 12.13.01	Performance Requirements for Combustible Gas Detectors

CONTROL OF INSPECTION, MEASURING, AND TEST EQUIPMENT

Inspection, measuring, and test equipment that will be controlled, calibrated, and maintained.

The Quality Manager evaluates the project requirements and determines if there are measuring devices that require controls to assure quality results.

For each type of device the Quality Manager identifies:

- Restrictions for selection
- Limitations on use.
- Calibration requirements including the frequency of calibration. All calibrations must be traceable to national measurement standards.

When a measurement device is found not to conform to operating tolerances, the Quality Manager validates the accuracy of previous measurements.

**W.Bradley Electric, Inc.
Quality Inspection and Test Plan**

Project ID	Project Name	CONTRACTOR
[ProjectNumber]	[ProjectName]	[CompanyName]

SPECIFICATION SECTION AND PARAGRAPH NUMBER	SCHEDULE ACTIVITY ID	TEST REQUIRED	ACCREDITED/ APPROVED LAB YES /NO	SAMPLED BY	TESTED BY	LOCATION OF TEST ON/OFF SITE/SITE	DATE COMPLETED	DATE FORWARDED TO CUSTOMER	REMARKS

I. ELECTRICAL WORK TASK QUALITY INSPECTIONS

W.Bradley Electric, Inc. identifies a list of work tasks, phases of production, which will be quality controlled.

WORK TASKS SERIES OF INSPECTIONS

Each work Task is subject to a series of inspections; before, during, and after the work is complete. Each inspection verifies compliance with full scope of the relevant specifications; not limited to checkpoints for heightened awareness.

- The initial task-ready inspection occurs when crews are ready to start work and ensures that work begins only when it does not adversely impact quality results.
- Incoming material inspections verify that materials are as specified and meet all requirements necessary to assure quality results.
- Work-in-process inspections continuously verify that work conforms to project specifications and workmanship expectations. Work continues only when it does not adversely impact quality results.
- At completion of the Task an inspection verifies that work, materials, and tests have been completed in accordance with project quality requirements. When appropriate, functional tests are performed.

Inspection results are recoded and maintained as part of the project files.

SPECIAL PROCESS INSPECTIONS

The Quality Manager identifies special processes where the results cannot be verified by subsequent inspection or testing and determines if continuous work in process inspections are required. For these special processes, a qualified inspector continuously inspects the work process.

MATERIAL QUALITY INSPECTION AND TESTS

Material quality inspections and tests ensure that purchased materials meet purchase contract quantity and quality requirements. The Superintendent inspects or ensures that a qualified inspector inspects materials prior to use for conformance to project quality requirements.

The Superintendent ensures that each work task that uses the source inspected materials proceed only after the material has been accepted by the material quality inspection or test.

DAILY QUALITY CONTROL REPORT

The Superintendent records a summary of daily work activities. The report will include:

- Schedule Activities Completed
- General description of work activities in progress.
- Problems encountered, actions taken, problems, and delays
- Meetings held, participants, and decisions made
- Subcontractor and Supplier and Company Crews on site
- Visitors and purpose
- General Remarks
- Improvement Ideas
- Weather conditions

W.Bradley Electric, Inc. Daily Production Report

Version 20150120

Project ID	Project Name	Preparer*/Date
[ProjectNumber]	[ProjectName]	
* On behalf of the contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report.		
	Description	
Job-ready and WIP Inspections (Active work tasks)		
Work Tasks Completion Inspections		
Sampling/Tests Performed		
Nonconformance Reports		
Problems encountered, actions taken, problems, and delays		
On Site Subcontractors and Suppliers, Company Crews, and Visitors		
Meetings held and decisions made		
General Remarks and improvement ideas		
Weather conditions	Temperature: Low: ____ F High: ____ F Precipitation: <input type="checkbox"/> No <input type="checkbox"/> Yes, type and amount: _____	

W.Bradley Electric, Inc. Work Task Inspection Form

Version 20150120

Work Task :

Project: Id#
[ProjectNumber]

Project Name:
[ProjectName]

Subcontractor and Supplier Company
ID/Name:

Location/Area:

Reference drawing version #:

Crew ID/Name

Compliance Verification

- Compliance with initial job-ready requirements
- Compliance with material inspection and tests
- Compliance with work in process first article inspection requirements
- Compliance with work in process inspection requirements
- Compliance with work task completion inspection requirements
- Compliance with inspection and test plan

Heightened Awareness Checkpoints

- [Insert items identified at project startup and preparatory meetings]
-
-
-
-

Production Notes:

Reported Nonconformances:

Verification of Work Task Completion (sign and date)

Subcontractor and Supplier Sign and date*:
Work task verified complete to specifications (sign and date)

Project Superintendent Sign and date*:
Work task verified complete to specifications (sign and date)

Project Superintendent score subcontractor/crew performance and feedback notes

Quality: 5 4 3 2 1
Safety: 5 4 3 2 1
Delivery: 5 4 3 2 1

Quality Manager Sign and date*:
Work task verified complete to specifications (sign and date)

Quality Manager score quality performance and feedback notes

Quality: 5 4 3 2 1

* On behalf of the contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report.

J. QUALITY CONTROL OF CORRECTIONS, REPAIRS, AND NONCONFORMANCES

Should a problem occur in the quality of work, we systematically contain the issue and quickly make corrections. Our first action is to clearly mark the item by tape, tag, or other easily observable signal to prevent inadvertent cover-up.

Then we expedite a corrective action that brings the workmanship or material issue into conformance by repair, replacement, or rework. Previously completed work is reinspected for similar nonconformances. In the event that we cannot correct the item to meet contract specifications, the customer will be notified and customer approval of corrective actions is required before proceeding.

Fixing problems found is not sufficient. W.Bradley Electric, Inc. systematically prevents recurrences to improve quality. First enhanced controls and management monitoring are put into place to assure work proceeds without incident. Then using a structured problem solving process, W.Bradley Electric, Inc. identifies root causes and initiates solutions. Solutions may involve a combination of enhanced process controls, training, upgrading of personnel qualifications, improved processes, and/or the use of higher-grade materials. Follow-up ensures that a problem is completely resolved. If problems remain, the process is repeated.

Nonconformances and their resolution are recorded on a Nonconformance Report form. A Nonconformance Report form exhibit is included in this subsection.

W.Bradley Electric, Inc. Nonconformance Report Version 20150120		
Nonconformance Report Control ID	Project ID	Project Name
	[ProjectNumber]	[ProjectName]
Preparer Signature/ Submit Date		Quality Manager Signature / Disposition Date
Description of the requirement or specification		
Description of the nonconformance, location, affected area, and marking		
Disposition	<input type="checkbox"/> Replace <input type="checkbox"/> Repair <input type="checkbox"/> Rework <input type="checkbox"/> Use As-is	
	Approval of disposition required by customer representative? Yes <input type="checkbox"/> No <input type="checkbox"/> Customer approval signature /date: _____	
Corrective Actions	<input type="checkbox"/> Corrective actions completed Name/Date: _____ Customer acceptance of corrective actions required? Yes <input type="checkbox"/> No <input type="checkbox"/> Name/Date: _____	
Preventive Actions		
	<input type="checkbox"/> Preventive actions completed Name/Date: _____	

K. PROJECT COMPLETION INSPECTIONS

W.Bradley Electric, Inc. conducts a series of inspections near the end of each project to assure that the contracted work is completed to specifications.

Near the end of the project, or a milestone, the Quality Manager, Superintendent, and Project Manager participate in the inspection of the completed project and verify conformance to contract specifications. Any deviations are corrected and reinspected before submitting the project to the customer for final inspection.

If the customer performs a final inspection, corrections are quickly addressed, reinspected by the Quality Manager, and then submitted for customer final review.

A Record of each of the inspections will be maintained on the Project Completion Inspection form. If punch items are discovered during the inspection, a record of the punch items and their correction will be maintained on the Punch List form. Project Completion Inspection and Punch List form exhibits are included as an exhibit in this subsection.

W.Bradley Electric, Inc. Project Completion Inspection Form

Version 20150120

Project ID:	Project Name:	Location/Area:	
[ProjectNumber]	[ProjectName]		

Compliance Verification

- Compliance with material inspection and tests
- Compliance with inspection requirements
- Compliance with functional tests if required
- Compliance with inspection and test plan
- Punch lists corrections complete

Heightened Awareness Checkpoints

- [Insert items identified at project startup, preparatory and status meetings]
-
-
-
-

Notes:

Reported Nonconformances:

Verification of Project Completion (sign and date)

Project Superintendent
verified complete to specifications (sign and date)

Sign and date*:

Quality Manager
verified complete to specifications (sign and date)

Sign and date*:

* On behalf of the contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report.

L. QUALITY ASSURANCE SURVEILLANCE

We manage overall project performance by setting performance objectives, measuring actual performance, and managing performance improvements. Overall performance objectives will be designed to extend our customer's performance work objectives into W.Bradley Electric, Inc. operations. Each objective will have specific and verifiable measures.

We expect to measure performance in the following areas:

- Customer satisfaction through customer feedback, surveys, complaints, and quality assurance surveillance reports.
- On-time task completion as measured by a monthly on-time performance assessment
- Contract administration compliance as measured by a monthly project contract administration assessment
- Safety Plan compliance as measured by safety violations and a monthly safety assessment
- Quality Plan conformance as measured by a monthly Quality Plan assessment

Every month, W.Bradley Electric, Inc. holds a performance improvement meeting with the participation of key project and customer personnel. They review past performance, project quality risks, and quality issues. An action plan is set for improvement and progress is reviewed at the next meeting.

W.Bradley Electric, Inc. Project Quality System Audit Form

Version 20150120

Project ID	Project Name	Auditor	Date
[ProjectNumber]	[ProjectName]		

**Review Topics:
(Place check mark next to each item audited)**

- Customer satisfaction
- On-time task completion
- Contract administration
- Safety compliance
- Quality risk planning and mitigation
- Performance improvement results
- Action plan for improvements

Quality Plan Conformance:

- Project QC Personnel
- Project Quality Coordination and Communication
- Employee Qualifications
- Qualification of subcontractors and suppliers
- Project Quality Specifications
- Testing Plan
- Test Reports
- Work Task Quality Inspections
- Daily Quality Control Report
- Control of Punch Items and Nonconformances
- Project Records and Documents

Nonconformance Notes and observations

Action plan for improvement

Follow-up results and date

M. CONTROL OF QUALITY RECORDS AND DOCUMENTS

On this project, W.Bradley Electric, Inc. will keep quality documents and records of quality activities that occur throughout the duration of the project.

Project quality records will be stored in the project field office. As a backup, copies of records will be held offsite. The exact location will be determined at quality coordination meeting.

N. SERVICING AND WARRANTY

W.Bradley Electric, Inc. will provide warranty service per the contract specifications, regulatory requirements.

W.Bradley Electric, Inc. will maintain the capability to provide the necessary service by having the required resources available. This includes materials, equipment, and personnel.