



## Electronic Safety & Security Essentials QA/QC Plan Sample

Good for smaller projects and bid qualifications

*Has All the Essential Elements of a well-founded  
Quality Control Plan*

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# PROJECT-SPECIFIC ELECTRONIC SAFETY & SECURITY QUALITY PLAN

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## **B. KEY ELEMENTS OF THE ELECTRONIC SAFETY & SECURITY QUALITY PLAN**

Key elements of the [CompanyName] Quality Assurance/Quality Control Plan include:

**Quality Management and Responsibilities.** [CompanyName] 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.** [CompanyName] 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.** [CompanyName] 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.** [CompanyName] audits the quality system to assure it is operating effectively. We:

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## **COMPLIANCE WITH INDUSTRY ELECTRONIC SAFETY & SECURITY 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
28	Grounding and bonding requirements	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

Select Pages

# **I. ELECTRONIC SAFETY & SECURITY WORK TASK QUALITY INSPECTIONS**

[CompanyName] 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.

## **DAILY QUALITY CONTROL 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. [CompanyName] 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, [CompanyName] 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.

Select Pages

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<b>[CompanyName]</b> <b>Nonconformance Report</b> <small>Version 20150709</small>		
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: _____	

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## **LIST OF INCLUDED INSPECTION FORMS FOR ELECTRONIC SAFETY & SECURITY**

### **FROM CSI DIVISIONS**

- Electronic Safety & Security - 28

### **FORMS:**

- Commissioning of Electronic Safety and Security
- Conductors and Cables for Electronic Safety and Security
- Electronic Access Control and Intrusion Detection
- Electronic Surveillance
- Fire Detection and Alarm
- Mass Notification Systems
- Pathways for Electronic Safety and Security



## Electronic Safety and Security - Commissioning of Electronic Safety and Security 28.08.00

Project:	Phase:	Contract#:	Subcontractor:	Crew:
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<p><b><u>Compliance Verification</u></b></p> <p><input type="checkbox"/> Compliance with initial job-ready requirements</p> <p><input type="checkbox"/> Compliance with material inspection and tests</p> <p><input type="checkbox"/> Compliance with work in process first article inspection requirements</p> <p><input type="checkbox"/> Compliance with work in process inspection requirements</p> <p><input type="checkbox"/> Compliance with Task completion inspection requirements</p> <p><input type="checkbox"/> Compliance with inspection and test plan</p> <p><input type="checkbox"/> Compliance with safety policies and procedures</p> <p>Reported Nonconformances and incomplete items:</p>	<p><b><u>FTQ 2TQ Heightened Awareness Checkpoints</u></b></p> <p><input type="checkbox"/> <input type="checkbox"/> All components installed and ready for functional testing</p> <p><input type="checkbox"/> <input type="checkbox"/> Start-up sequence verified with ENGINEER</p> <p><input type="checkbox"/> <input type="checkbox"/> System Operations free of electromagnetic and radio frequency interference</p> <p><input type="checkbox"/> <input type="checkbox"/> CCTV system operational over entire expected light range</p> <p><input type="checkbox"/> <input type="checkbox"/> Sensor output verified under all operational scenarios</p> <p><input type="checkbox"/> <input type="checkbox"/> Alarm reporting locations verified with OWNER prior to programming and connection</p> <p><input type="checkbox"/> <input type="checkbox"/> System cross connection (fire// elevator// door / window// lighting// electrical// water// sewer// etc.) signals functional</p> <p><input type="checkbox"/> <input type="checkbox"/> Hardware and Software compatible across the System</p> <p><input type="checkbox"/> <input type="checkbox"/> Security Access Settings enabled</p> <p><input type="checkbox"/> <input type="checkbox"/> Password and Access Codes documented and provided to the OWNER</p>
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### FTQ Scores and Completion Sign-off

#### Field Mgmt.-91.45.01

**Quality**      5   4   3   2   1   *Notes:*

**On-Time**      5   4   3   2   1   *Notes:*

**Safety**      5   4   3   2   1   *Notes:*

Sign and date\*: Cell # / ID #: \_\_\_\_\_ Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Task has been has been verified complete and in compliance with contract drawings and specifications except for non-conformances a n d incomplete items reported above.

<b><u>Quality Score</u></b>	5 = 100% NO problems	4 = 1 minor problems	3 = Hotspot or 2-3 minor	2 = 6+ or major problems	1 = Excessive problems
<b><u>On-Time Score</u></b>	5 = On Time	4 = Late	3 = Late by 1 day	2 = Late by 2 days	1 = Late more than 2 days
<b><u>Safety Score</u></b>	5 = 100% NO problems	4 = 1 minor problem	3 = Hotspot or 2-3 minor	2 = 4+ or major problem	1 = Injury



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