PROJECT QUALITY PLAN

Constructors

MMR CONSTRUCTORS, INC.

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1.0 Project Quality Plan Transmittal

To: Turner Construction
262 Hanover Street
Columbus, OH 43215

From: MMR Constructors, Inc.
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15961 Airline Hwy
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Below is a table noting the master MMR Constructors Project Quality Plan (PQP), Rev 9, 08/24/22, Table of Contents. Please note that the chapters have either been revised, omitted, or remain as-is in order to make the attached MMR PQP project specific.

MMR Constructors PQP Table of Contents				
Chapter	**Description**	**Revised**	**Omitted**	**Remain As-Is**
1.0	Project Quality Plan Transmittal	Yes		
2.0	Table of Contents			Yes
3.0	Communications	Yes		
3.1	MMR Quality Policy	Yes		
3.2	Project Quality Plan Development			Yes
3.3	MMR Quality Roles and Responsibilities			Yes
3.4	Document Control			Yes
3.5	Quality Inspection and Test Procedures and Forms			Yes
3.6	Inspection, Measurement, and Testing Equipment			Yes
3.7	Inspection and Test Status			Yes
3.8	Quality Nonconformance			Yes
3.9	Corrective and Preventive Action			Yes
3.10	Surveillances			Yes
3.11	Shipping, Receiving, Handling, Storage, and Preservation			Yes
3.12	Control of Documents and Records			Yes
3.13	Quality Audit Program			Yes
3.14	Personnel Qualifications and Quality Control Training			Yes
3.15	Inspection and Test Procedure(s)	Yes		
3.16	Inspection and Test Form(s)	Yes		
3.17	Project Quality Plan Form(s)			Yes
Attachment(s):				
ITP	Inspection and Test Plan		Yes	

Notes:

- MMR Group, Inc. (MMR) and its affiliates will proceed with the attached PQP and associated Inspection and Test Plan (ITP), if required, in an as-is state **UNLESS** recipient(s) requests any changes/omissions in writing within five (5) calendar days of issuance. If additional time is required for review, please advise in writing to MMR representatives within same five (5) calendar days. You are encouraged to contact the MMR Quality Department if you have any questions, comments, or if we can be of any further assistance.
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3.0 Communications

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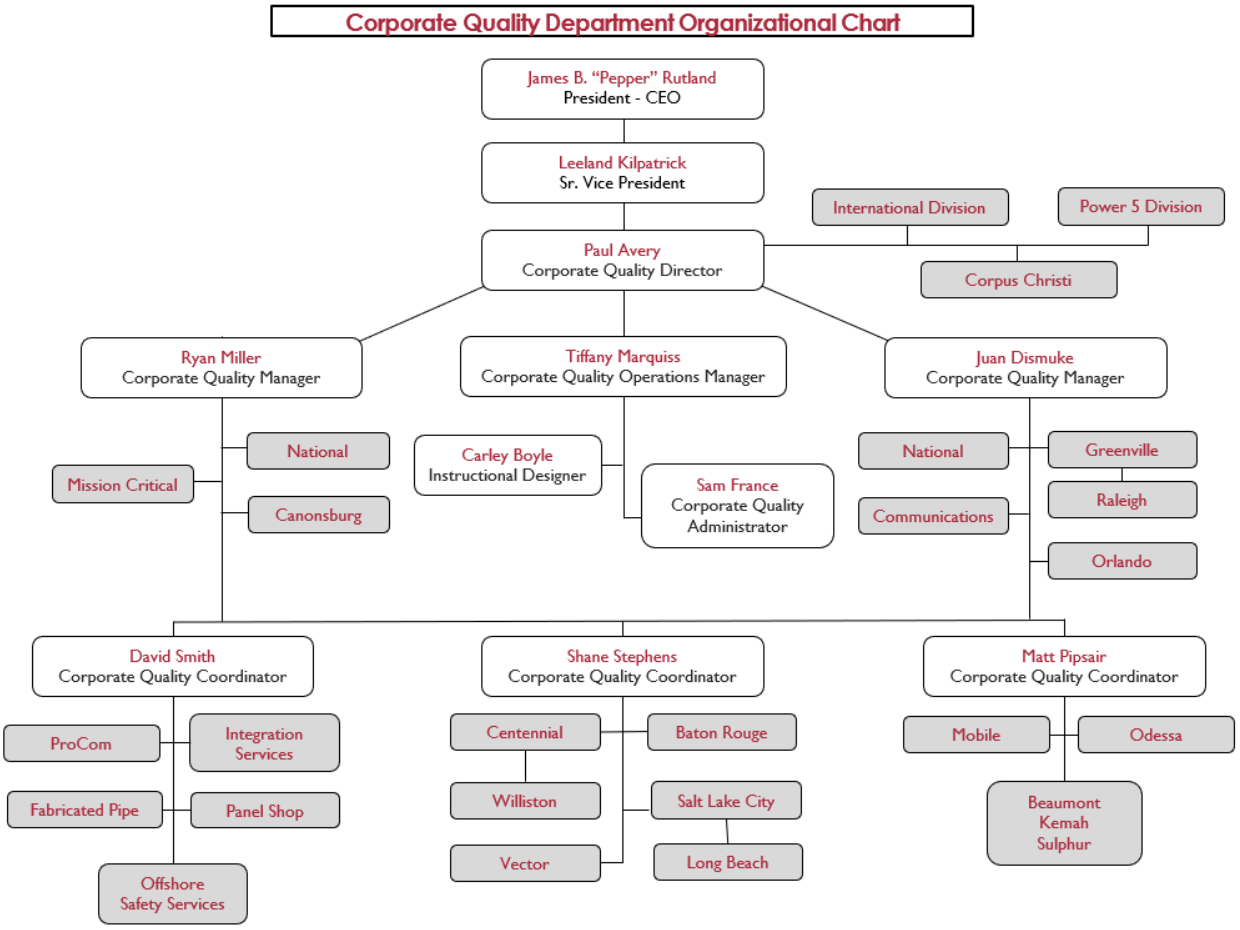
3.0.1 MMR Corporate Quality Department Organizational Chart



Note:

- If required, the MMR Project Quality Staff/Team Organizational Chart will not be included within this Project Quality Plan. It will be provided as part of the overall MMR Project Organizational Chart by MMR management.

3.1 MMR Quality Policy

3.1.1 Quality Philosophy

MMR and its subsidiaries recognize that in today's competitive marketplace effective quality management systems (QMS) are essential in providing quality and cost effective products/services to our clients. For this to occur, MMR applies a "6 Sigma DMAIC" (Define, Measure, Analyze, Improve, and Control) methodology in conjunction with maintaining compliance with ISO 9001:2015 criteria. This combination ensures that MMR fully complies with all unique project specifications, drawings, governing code(s), and contractual obligations. Each component being integral to both of our internal quality assurance (QA) and quality control (QC) processes. All of which is referenced throughout the MMR Corporate Quality Manual (CQM) as well as MMR's Project Quality Plan (PQP).

3.1.2 Quality Control Process

Prior to the contractual scope of work (SOW) taking place, it is imperative that the project stakeholders are aligned to ensure all expectations are met throughout the project. These expectations are then incorporated into the projects Key Performance Indicators (KPI's) as elements of the QC process.

QC Development:

The project QC content and requirement(s) is/are initially determined during the development of the MMR project specific PQP and ITP (if required) once all of the contractual and governing body quality criteria is reviewed and incorporated. The project specific PQP along with any affiliated subcontractor quality plan(s) and ITP's will then be submitted to the owner/end user as part of the approval process. The next step would then be to request that the client to host a quality "kick-off" meeting for each stakeholder to attend prior to project commencement.

QC Execution:

Once the approval of the proposed MMR project specific PQP and ITP along with any affiliated subcontractor(s) quality plan(s) and ITP's is/are provided, MMR will then proceed to conduct the required quality inspections and/or testing as outlined. These records in turn will then be submitted as part of the turnover package process (if required).

3.1.3 Corporate Quality Manual

The CQM describes MMR's overall Quality Management System (QMS) by addressing the following:

- Quality Objectives
- Document Control
- Customer Focus
- Resource Management
- Customer Contracts
- Installation and Service Provisions
- Internal Quality Audits
- Corrective and Preventive Actions
- Annual Management Review
- Etc.

3.1.4 PQP Statement of Purpose

The MMR Constructors PQP, Rev 9, 08/24/22, is published to act as an extension of the CQM and is a fundamental component of the overall QMS on an individual project level. Its purpose is to ensure that not only MMR's internal standards are achieved, but also all contractual quality requirements and applicable codes and regulations are met and/or exceeded.

3.1.5 Various MMR PQPs Flowchart

3.1.6 Quality Key Performance Indicators

As part of MMR's continuous improvement process, KPI's are collected in order to monitor, analyze, and evaluate quality compliance during both the construction phase(s) and the overall QMS on a global level. These KPI's are often the benchmark for MMR's overall quantifiable quality objectives that can be reviewed daily so that any trends, deficiencies, or other potential problems can be addressed as soon as they are recognized. The goal is to avoid and minimize all negative occurrences that could potentially jeopardize the project. Some examples of negative trends are the following: Similar Audit Finding Reports (AFR's), Nonconformance Reports (NCR's), and Corrective Action Requests (CAR's). Once a negative trend is identified, a recovery plan is enacted to mitigate future risks of recurrence.

These trends are discussed when necessary or at least annually during the MMR QMS meeting(s) initiated by MMR's Corporate Quality Department (CQD) and attended by members of MMR's upper management. If changes are suggested and adopted, they will be documented within the CQM and released to MMR quality personnel for awareness, training, and distribution (as applicable). Please note that a change to the QMS can take place immediately depending on the severity of the issue in lieu of waiting until the annual meeting. Refer to the CQM, latest edition, for additional information.

<u>Project Driven Quality KPI Examples</u>:
Project driven KPI examples include, but are not limited to, the following:

- AFRs resulting from a quality audit
- CARs; Preventive Action Requests
- NCRs because of a quality incident
- Material, equipment, procedure, inspection, test, etc.
- Request for Information (RFI)
- Customer satisfaction; Repeat violations
- Process performance measures
- Management reviews
- Etc.

Note: The KPI's have the ability to be distributed to MMR stakeholders for further review and evaluation.

Overall QMS KPI Examples:
Upon project completion, a customer survey may be initiated by MMR supervision (i.e., District Managers, Project Managers, Quality Coordinators, etc.). This survey may be promulgated via MMR's intranet system or via email on a random basis directed to the attention of MMR's clients, project facility owners, engineers of record, or invested stakeholders. The survey questions focus on MMR's construction, safety, purchasing, and quality performance. Collected data is then provided to the MMR CQD to analyze and share with MMR upper management as may be deemed necessary.

3.1.7 Risks and Opportunities

Risks and opportunities are identified and assessed in several ways and have the potential to impact both MMR's overall QMS and individual project standards. This process is further documented throughout MMR's CQM and within this PQP. The following is a synopsis on how this is accomplished at a project level:

Contract Review and Execution:
- Product/Service requirements are adequately defined
- Any changes to previously expressed requirements are resolved and documented
- The organization has the ability to meet the defined requirements
- The quoted price, schedule, and scope are correct

Health, Safety, and Environmental (HSE):
Contact the MMR HSE Department for the latest edition of the HSE Manual

Procurement and Rentals:
Contact the MMR Procurement Department for the latest edition of the Procurement Plan

Staffing and Training Personnel:
Refer to Section 3.14 for additional information

Quality:
MMR's quality KPI's play a major role in assessing project risks and potential opportunities by reviewing less than satisfactory trends (if any). If these trends are developing, they will be analyzed and prioritized as to their level of importance. They will then be put through the "Plan, Do, Check, Act" or similar methodology moving forward for mitigation and/or elimination.

3.1.8 Lean Project Delivery Approach

To ensure that all client expectations are achieved, MMR approaches each project with the goal of collaboratively aligning project stakeholders from project conception to completion. This delivery approach will assist in minimizing the waste of materials, equipment, and time to generate maximum return on investment (ROI) for the facility owner.

3.1.9 Flawless Delivery Approach

MMR's approach to flawless delivery is to make every reasonable effort to provide its clients with a seamless project free of scheduling delays, defects, and other common construction impediments. Promoting and participating in open dialogue from project inception to project completion with each stakeholder is crucial in achieving these goals.

Flawless delivery task examples might include the following:

- Tracking predetermined KPI's
- Monitoring fabrication, deliver, installation, inspection/testing processes
- Submit periodic production report(s)
- Attend periodic meetings

3.1.10 **Glossary of Terms**

Contractor: A company that undertakes a contract to provide materials and/or labor to perform a service

Certified Trainer: A certified individual is someone that has the authority (i.e., vendor/supplier representative, factory training, "Train the Trainer" credentials, etc.) to provide training and oversight to ensure the correct installation/application of a particular product or service

Client: An entity that purchases goods or services from another

Commissioning: The systematic quality control process by which a piece of equipment, system, or facility is tested to verify that it operates/functions in accordance with the design intent and owner's operational requirements.

Contractor: A company who contracts to furnish supplies and/or perform work at a certain price

Corrective Action: Action planned or taken to stop something from reoccurring

Homologation Audit: An audit that is conducted as part of the process of certifying or approving a product to indicate it meets regulatory standards and specifications (i.e., safety and technical requirements)

Inspection and Testing: Inspection is a visual check or a dimensional measurement; whereas, "testing" is a measured verification of characteristics or performance, both being carried out to ascertain if specified requirements have been met.

Inspection and Test Plan (ITP): A matrix of inspections and/or tests which are to be performed as per contract or agreement assuring all requirements are met.

Definitions of MMR, client, owner, etc. activities:

A. Audit Point (A) – An examination to determine whether activities and results comply with quality requirements. Audits are not to be constructed as an inspection or test function required to verify product conformance.
B. Hold Point (H) – A predetermined point at which an activity may not proceed further until an examination inspection, test, or other verification has been completed. Hold points may be viewed in writing by the client's site representative.
C. Monitor Point (M) – The observation of activities to verify compliance
D. Witness Point (W) – A predetermined point in a given activity where notification of a designated individual is required for verification purposes and upon proper notification, the activity may commence. Activities may proceed as scheduled upon proper notification when agreed by owner/client representative.

International Organization of Standardization (ISO): An independent, non-governmental, organization that develops international standards that aid in the creation of products and services that are safe, reliable, and of good quality. It was founded in 1947 and headquartered in Geneva, Switzerland.

In this PQP, the following ISO terms are used:

E. Can – Indicates a possibility or a capability
F. May – Indicates a permission
G. Shall – Indicates a requirement
H. Should – Indicates a recommendation

ISO Definitions:

A. Disposition – Final settlement of matter
B. Document – Provides guidance and/or direction for performing work, making a decision, or rendering judgement. It can consist of the following: written, video tape, physical sample, sample drawing, computer program, etc.
C. Documented Procedures – Procedures that are formally laid down in a reproducible medium (i.e., paper, disk, etc.).
D. Evidence of Conformance – Documents which testify that an entity conforms to certain prescribed requirements.
E. Record – A document stating results achieved or providing evidence of activities performed.

International System of Units (SI): A system of physical units based on the meter, kilogram, second, ampere, kelvin, candela, and mole, together with a set of prefixes to indicate multiplication or division by a power of ten. It is maintained and updated every few years to match the world's increasingly demanding requirements for measurement by the International Bureau of Weights and Measures in Paris, France.

Owner: A company who awards a contract for a project and undertakes to pay the contractor for services rendered

Nonconformance Report (NCR): Identifies materials, procedures, installations, etc. which are not in compliance with the manufacturer literature, governing code(s), project specification(s) and drawing(s).

National Institute of Standards and Technology (NIST): A federal technology agency, part of the United States Department of Commerce, which works with industry to develop and apply technology, measurements, and standards. The SI was adopted by the NIST as its basis of measurements.

Precommissioning: The systematic quality control process that begins after a system has achieved mechanical completion. It typically involves several different types of activities (i.e., inspections and testing of material and equipment) that ensures the contractors/subcontractors Scope of Work (SOW) aligns with manufacturer, engineer, owner, client, etc. contractual requirements.

Preventive Action: Action proposed or taken to stop something from occurring

Preventive Maintenance: Maintenance carried out at predetermined intervals to reduce probability of failure or performance degradation (i.e., replace oil filters at defined intervals, etc.)

Procedures: A sequence of steps to execute a new or routine activity

Quality Assurance (QA): A system for ensuring a desired level of quality in the development, production, and/or delivery of products or services

Quality Control (QC): A system for verifying and maintaining a desired level of quality in an existing product or service by careful planning, use of proper equipment, continued inspection/testing, and/or corrective action if needed or required. Furthermore, it is defined as the industrial management technique or a group of techniques in which projects are constructed while implementing uniformed QC installation procedures that meet and/or exceed the contractual requirements.

Reference Standard: A procedure published and/or device manufactured by industry experts (i.e., manufacturer literature, governing code, engineer drawings and/or specifications, etc.) that are implemented as a guideline for inspection and/or testing criteria

Repair: Repair of nonconforming conditions shall be made in accordance with approved repair procedures

Request for Information: A written request that is typically made by contractor/subcontractor to the client, owner, engineer, etc. in order to gather/clarify information to assist in a decision of a contractual obligation

Scrap: If an item is unfit for use, it shall be returned to the purchasing party for disposal/removal

Subcontractor: A company that contracts to provide some service or material necessary for the performance of another's contract

Supplier: A company that is the source for goods and/or services (e.g., copper for wire) that is implemented in the fabrication/manufacturing process of a finished product

Surveillance: Observance of receiving and installation of materials and or work methods to ensure compliance with the project and quality plan documents

Test Reports: Documented information which records the results of specified test when verified by the technician and approved/signed for validation

Use-As-Is: Nonconformance disposition use-as-is conform to specific specifications established by the NCR committee for its use

Vendor: A person or business entity that provides a service, manufactures, assembles inventory, and/or stock items and sells them as a finished product (i.e., transformer, cable tray, cable, instrument, etc.)

3.1.11 **Acronyms/Abbreviations**

ABS – American Bureau of Shipping
AC – Alternate Current
ACI – American Concrete Institute
Admin. – Administrative
AFR – Audit Finding Report
AKA – Also Known As
API – American Petroleum Institute
ASME – American Society of Mechanical Engineers
ASTM – American Society for Testing and Materials
AVL – Approved Vendor List
BOM – Bill of Material
CAR – Corrective Action Request
Coord. – Coordinator
CQD – Corporate Quality Department
CQM – Corporate Quality Manual
CQC/M – Corporate Quality Coordinator/Manager
CSA – Canadian Standards Association
CT – Current Transformer
DC – Direct Current
Doc – Document
Dwgs. – Drawings
E&I – Electrical and Instrumentation
ECL – Equipment Calibration List
EPL – Equipment Preservation Log
Equip. – Equipment
ESWP – Electrical Safe Work Practices
FAT – Factory Acceptance Test
FBO – Furnished By Others
FEIR – Facility Equipment Inventory Register
FIF – Factory Inspection Form
FSA – Final System Acceptance
NBC – National Building Code
NCCER – National Center for Construction Education and Research
NCR – Nonconformance Report
NDE – Non-Destructive Examination
NEC – National Electrical Code
NETA – International Electrical Testing Association
NFPA – National Fire Protection Association
NGR – Neutral Grounding Resistor
NIST – National Institute of Standards and Technology
NRI – Notification of Readiness for Inspection
OFI – Opportunities for Improvement
OTDR – Optical Time-Domain Reflectometer
PA/GA – Public Address/General Alarm
PAR – Preventive Action Request
PM – Project Manager
PMI – Positive Material Identification
P.O. – Purchase Order
PQC – Project Quality Coordinator
PQP – Project Quality Plan
ProCom – ProCom
PS – Panel Shop
PSQC – Panel Shop Quality Coordinator
PT – Potential Transformer
PWHT – Post Weld Heat Treatment
QA – Quality Assurance
QC – Quality Control
QIR – Quality Incident Report
QMS – Quality Management System
RCA – Root Cause Analysis

FUA – Final Unit Acceptance
HR – Human Resource
HSE – Health, Safety, and Environmental
IBC – International Building Code
ICP – Industrial Control Panels
IEEE – Institute of Electrical and Electronics Engineers
IFC – Issued for Construction
IMTE – Inspection, Measurement, and Testing Equipment
Insp. – Inspector
IRF – Inspection Release Form
ISA – International Society of Automation
ISO – International Organization of Standardization
ITP – Inspection and Test Plan
ITR – Inspection and/or Test Report
JSA – Job Safety Analysis
KPI – Key Performance Indicator
LPD – Lean Project Delivery
LO/TO – Lock-Out/Tag-Out
LPI – Lightning Protection Institute
Mat. – Material
MCC – Motor Control Center
Mgmt. – Management
Mgr. – Manager
MMR – MMR
MMRC – MMR Canada, Ltd.
MSA – Master Service Agreement
MTG – Meeting
Rep. – Representative
Req. – Requisition
RFI – Request for Information
ROI – Return on Investment
RSL – Record Storage Log
SAL – Signature Authority List
SCC – Standard Council of Canada
SI – International System of Units
SOW – Scope of Work
Specs. – Specifications
SRF – Shipping Release Form
SUB – Subcontractor
Super. – Supervision
SUR – Surveillance Report
SURL – Surveillance Report Log
SWA – Stop Work Authority
Tech – Technician
TR – Training Record
T/O – Turnover
UL – Underwriters Laboratories, Inc.
UPS – Uninterruptible Power Supply
VFD – Variable Frequency Drive
VIF – Vendor Inspection Form
VLF – Very Low Frequency
VPCQ – VP Corporate Quality
VQF – Vendor Qualification Form

3.1.12 **Referenced Document(s)**

MMR Group, Inc.:

- Corporate Quality Manual, latest edition
- Health, Safety, and Environmental (HSE) Manual, latest edition
- Procurement Plan, latest edition
- Project Controls Procedure Manual, latest edition
- Workforce Development Plan, latest edition

Client/Owner Contractual Quality Requirements:
MMR was not provided contractual quality documents stipulating the requirements or they were unknown at time of this PQP publication. As a result, MMR intends to document the quality process as outlined within this PQP until client, owner, etc. requirements are known and agreed upon by all parties.

3.2 Project Quality Plan Development

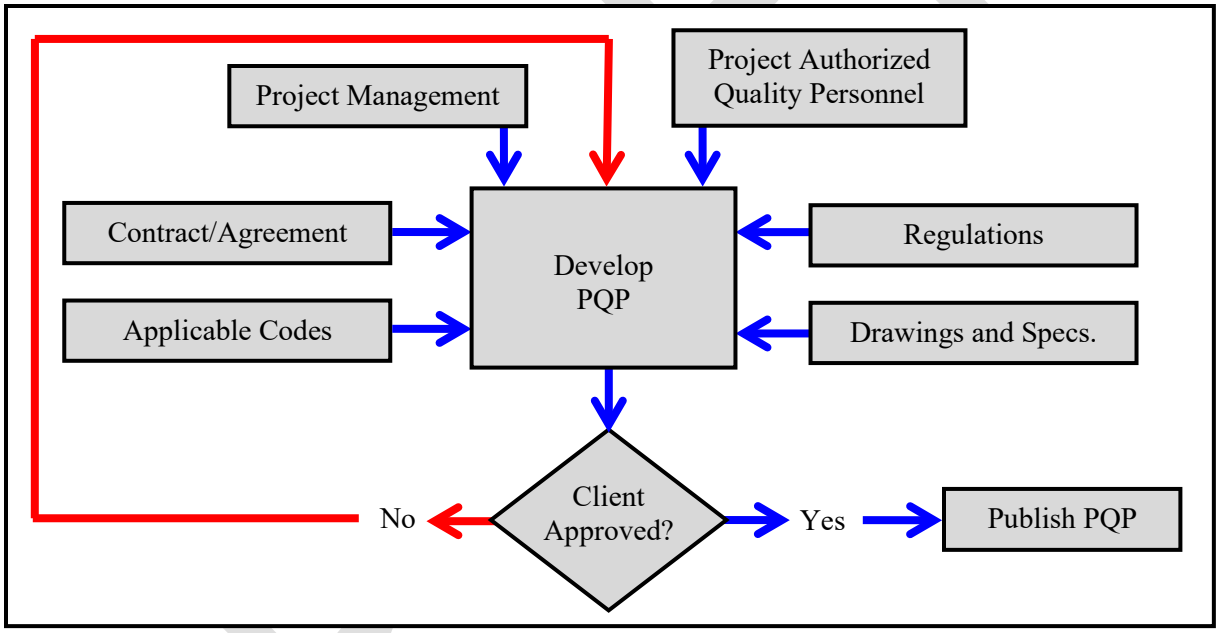
3.2.1 Guidelines

MMR's PQP establishes quality guidelines for the inspection and testing of electrical and instrumentation installations in addition to any other contractual obligations performed by a subcontractor. These guidelines must be adhered to by each/every stakeholder whether directly or indirectly participating in the construction of the project so as to increase the likelihood of success.

3.2.2 Development

The CQD initially developed the PQP to serve as a template noting the minimum MMR quality requirements and intended output on a project. Outputs being a process, procedure, product, and/or service. The plan can then be expanded upon by the addition of project specific quality requirements by incorporating the contractual obligations, applicable governing codes and regulations, specifications, drawings, etc. along with input from both the project authorized quality personnel and Project Management. Upon internal review and acceptance, the plan will then be submitted to the client and/or owner for their analysis, input, and approval in order to acquire a mutual agreement on how the objectives will be met between stakeholders.

3.2.3 PQP Development Flowchart



3.2.4 Commencement

Ideally, the PQP would be published prior to MMR's commencement of work so that quality training can be provided, records captured, audits conducted, etc. as mentioned within this manual.

3.2.5 Responsibility

The PQP is the responsibility of the project authorized quality personnel who ensure that all elements of the program are adequate to accomplish the intent of the contractual or agreement obligations.

3.2.6 Subcontractor Quality Documents

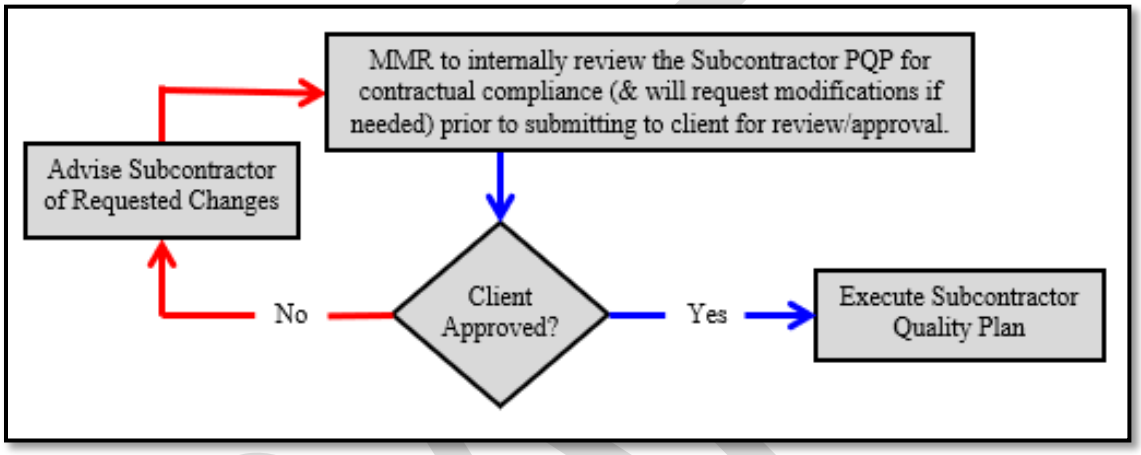
If MMR elects to hire a subcontractor to address part of its overall contractual obligation(s), a PQP as well as an ITP, quality procedures and forms, resume(s),

certification(s), etc. should be solicited from the subcontractor for internal review of compliance. If acceptable, the information will then be submitted to the client, owner, engineer, manufacturer, etc. for approval **PRIOR TO** their commencement of work if so requested. Refer to Subsection 3.5.4 for additional information.

A. Subcontractor Activity Examples:
Subcontractor activities could include, but not limited to, the following: quality inspection and/or testing as part of NETA or FAT requirements, welding, structural steel erectors, lightning protection, heat trace, etc.

B. Documents and Records Storage:
Subcontractor documents and records will be stored as per Section 3.12

C. Subcontractor PQP Approval Flowchart:



3.2.7 Provided Quality Procedures and Forms

The implementation of third-party (i.e., client, owner, engineer, manufacturer, etc.) provided quality procedures and associated forms in lieu of MMR's standard policies can be administered if so directed by the client, owner, engineer, etc. Refer to Sections 3.15, 3.16, and 3.17 for the list of quality documents MMR will be implementing.

MMR Stipulations:

1. MMR will be provided the opportunity to review the information in a timely manner and be allowed to offer any suggestions/enhancements to the client, owner, engineer, manufacturer, etc. for approval **PRIOR TO** capturing any/all records.
2. MMR quality inspection and/or testing procedures **ONLY** coincide with MMR associated inspection and/or testing forms.
3. If a condition arises that is **NOT** addressed by the provided inspection and/or test forms, MMR reserves the right to use any/all MMR standardized quality inspection and/or test procedures and associated forms as deemed necessary to capture the missing records.

3.2.8 Quality Kick-Off Meeting

Prior to commencement of work, MMR project authorized quality personnel can request a meeting with client, owner, engineer, etc. to review the project quality requirements. The importance of this "Kick-Off" meeting is to have an open dialogue with all of the stakeholders to further discuss any/all defined contractual obligations along with ensuring all expectations are met.

Topics of Discussion Examples:
Topic of discussion examples include, but not limited to, the following:

- MMR PQP approval status
- MMR ITP approval status

- Third-party testing submittals and approval status
- Signature Authority List
- Stakeholder expectations
- Lean Project Delivery
- Etc.
- Client/Owner document control submittal process
- Turnover package requested documentation
- Frequency of scheduled quality progress meetings

3.3 MMR Quality Roles and Responsibilities

3.3.1 Project Management

A. The project management team requires individuals to possess the skills, knowledge, tools, and techniques necessary to properly manage, forecast, and execute the project's contractual requirements and objectives (i.e., coordination of HR, billing, RFIs, quantity tracking, scheduling, etc.). Depending on the projects organizational chart, the job titles they can hold are as follows: Project Manager, Site Superintendent, Project Engineer, Project Controls, etc.
B. Has the authority and responsibility to conduct, but not limited to, the following: Review contract along with Human Resources (HR) for quality responsibilities/requirements in order to staff qualified quality personnel; Attend periodic client, owner, etc. quality meetings; Review/Approve Subcontractor (if any) submitted proposal aligns with contractual requirements prior to submitting it to MMR Legal Department for contract execution; etc.
C. Located at the project jobsite or District Office that this project is assigned to
D. Has direct and independent line of communication to his/her superiors

3.3.2 V.P. Corporate Quality (VPCQ)

A. Has the authority and responsibility to conduct, but not limited to, the following: Administration of the quality system outlined in this manual in addition to the Corporate Quality Manual that outlines the Quality Management System (QMS); Establish and maintain the quality program; Organizational freedom to recognize quality problems and to provide solutions to those problems; Determine various jobsite quality requirements as per contract or agreement; Attend periodic client, owner, etc. quality progress meetings; Perform District Office and periodic project jobsite audits as required; Review Subcontractor's (if any) proposal to verify it meets project quality requirements prior to submitting it to MMR Purchasing Department as per MMR's Subcontractor Prequalification Procedure; etc.
B. As a corporate level stakeholder, they have the responsibility to remain involved as a portfolio manager and assist Corporate Quality Coordinator(s) by monitoring their progress while providing guidance throughout their assigned task(s).
C. Located in the MMR Corporate Office: MMR Group, Inc., 15961 Airline Hwy, Baton Rouge, LA 70817
D. Has direct and independent line of communications to MMR upper management in the Corporate Office

3.3.3 Corporate Quality Coordinator/Manager (CQC/M)

A. Has the authority and responsibility to conduct, but not limited to, the following: Administration of the quality system outlined in this manual if a CQR is assigned to this project; Establish and maintain the quality program; Organizational freedom to recognize quality problems and to provide solutions to these problems; Attend periodic client, owner, etc. quality progress meetings; Perform MMR's Quality Management System Internal, District Office, and project jobsite audits as required; Review Subcontractor's (if any) proposal to verify it meets project quality requirements prior to submitting it to MMR Purchasing Department as per MMR's Subcontractor Prequalification Procedure; etc.
B. As a corporate level stakeholder, they have the responsibility to remain involved as a portfolio manager and assist District Office Quality Coordinators and various project quality staff by providing training and guidance throughout their assigned project(s) duration.
C. Located in the MMR Corporate Office: MMR Group, Inc., 15961 Airline Hwy, Baton Rouge, LA 70817
D. Has direct and independent line of communication to the VPCQ

3.3.4 **Administrative Support (Corporate Quality Department)**

A. Classification(s): Office Manager and Instructional Designer
B. Has the authority and responsibility to conduct, but not limited to, the following: Assist the VPCQ and CQC/M on the administration of the QMS outlined within the CQM and within this PQP; Coordinate, assist, and log both MMR quality and vendor training; etc.
C. Located in the MMR Corporate Office: MMR Group, Inc., 15961 Airline Hwy, Baton Rouge, LA 70817
D. Has direct and independent line of communication to the VPCQ and CQC/M

3.3.5 **Quality Coordinator**

A. Has the authority and responsibility to conduct, but not limited to, the following: Administration of the quality system outlined in this manual if a Quality Coordinator is assigned to this project; Establish and maintain the quality program; Organizational freedom to recognize quality problems and to provide solutions to these problems; Attend periodic client, owner, etc. quality meetings; Perform periodic project jobsite audits as required; Assist in the Subcontractor Prequalification Procedure as outlined in MMR's Procurement Plan, latest edition; etc.
B. Located in the District Office that this project is assigned to
C. Has direct and independent line of communication to the CQC/M and VPCQ

3.3.6 **Project Quality Coordinator**

A. Has the authority and responsibility to conduct, but not limited to, the following: Administration of the QMS outlined in this manual if a Quality Manager is assigned to this project; Establish, administer, and maintain the project quality program; Organizational freedom to recognize quality problems and to provide solutions to these problems; Conduct periodic project job site quality audits and surveillances as required; Assist in the Subcontractor Prequalification Procedure as outlined in MMR's Procurement Plan, latest edition; Review provided drawings, specifications, approved RFIs and submittals, etc. for installation and/or testing details; Conduct and record all MMR quality inspection and testing activities on the appropriate ITR's as required; Determine various jobsite quality requirements as per contract or agreement; Attend periodic client, owner, etc. quality meetings; Coordinate ITP audit, hold, monitor, and witness points with client, owner, engineer, etc. **PRIOR TO** any inspections and/or testing activities; Track all MMR inspections and/or testing activities (if required); Complete red line drawings; Assemble quality turnover package(s) as required; Coordinate and/or attend MMR, vendor, supplier, regulatory compliance, etc. training for MMR personnel; etc.
B. Located at the project jobsite if one is assigned to the project
C. Has direct and independent line of communication to the Quality Coordinator, CQC/M, and VPCQ

3.3.7 **Document Control**

A. Has the authority and responsibility to conduct, but not limited to, the following: Review provided Drawing(s) and/or Drawing Log; Review provided Specification(s) and/or Specification Log; Create/maintain "Master" drawing and specification books; Issue to MMR field personnel new/revised drawing(s), specification(s), inspection and test procedures and associated forms, client supplied documents, etc. as required; Assist with client turnover package assembly and submission; Create and maintain NCR Log; Maintain/Update Surveillance Log; Maintain/File quality documents on-site; Create TR's; Gather records for Record Storage Procedure upon project completion; Perform administrative and clerical duties related to project scope; etc.
B. Located at the project jobsite if one is assigned to the project

C. Has direct and independent line of communication to Project Quality Coordinator, Quality Coordinator, CQC/M, and VPCQ

3.3.8 **QC Inspector**

A. Has the authority and responsibility to conduct, but not limited to, the following: Administration of the quality system outlined in this manual if a Quality Manager is **NOT** assigned to this project; Establish, administer, and maintain the project quality program; Organizational freedom to recognize quality problems and to provide solutions to these problems; Review provided drawings, specifications, approved RFIs and submittals, etc. for installation details; Conduct and record all MMR quality inspection and testing activities on the appropriate ITR's as required; Coordinate ITP audit, hold, monitor, and witness points with client, owner, engineer, etc. **PRIOR TO** any inspections and/or testing activities; etc.
B. Located at the project jobsite if one is assigned to the project
C. Has direct and independent line of communication to Project Quality Coordinator, Quality Coordinator, CQC/M, and VPCQ

3.3.9 **Field Supervision (e.g., Foreman, Superintendent, etc.)**

A. Has the authority and responsibility to conduct, but not limited to, the following: Review provided drawings, specifications, approved RFIs and submittals, etc. for installation details; Schedule tasks for craftsmen to perform; Direct field craftsman on proper installations; Conduct and record all MMR quality inspection and testing activities on the appropriate ITR's as required; Coordinate ITP audit, hold, monitor, and witness points with client, owner, engineer, etc. **PRIOR TO** any inspections and/or testing taking place; etc.
B. Located at the project jobsite
C. Has direct and independent line of communication to Project Management, Operation Manager, and District Manager

3.3.10 **Welding, NDE, Homologation, and PMI Inspectors**

MMR will be **EXCLUDING** any/all internal certified Welding, Non-Destructive Examination (NDE), Homologation, and Positive Material Identification (PMI) Inspectors due to not having personnel with the required certifications and/or credentials on staff. However, if a condition arises to where MMR will be required to provide a qualified inspector(s), a third-party will be solicited and their information/credentials (i.e., resumes, quality manual, etc.) should be submitted for client, owner, engineer, etc. approval prior to inspecting and/or testing if so requested.

3.3.11 **Procurement Personnel**

Refer to the MMR Procurement Plan, latest edition. Information within this manual includes, but not limited to, the following:

- Approved Vendor List (AVL)
- Furnished by others (FBO) items
- Product/Material traceability
- Purchase Order (P.O.)
- Material/Equipment delivery inspection
- Requisition (Req.)
- Subcontractor prequalification procedure
- Etc.

3.3.12 **Project Control Personnel**

Refer to the MMR Project Control Procedure Manual, latest edition. Information within this manual includes, but not limited to, the following:

- Timekeeping
- Job Analysis
- Job Tracking
- Billing/Invoicing
- Request for Information
- Scheduling

3.3.13 Safety Personnel

Refer to the MMR HSE Manual, latest edition. Information within this manual includes, but not limited to, the following:

- HSE management system
- Job Safety Analysis (JSA)
- Stop Work Authority (SWA)
- Site Safety Manual

3.3.14 MMR Quality Responsibility Matrix

Description of Task (As Required)	MMR Project Staff (As Required)				Reference Section
	Project Mgmt. Team	Proj. Quality Coord.	QC Insp.	Doc. Control	
Beginning of Project:					
Review contract for QA/QC Requirements	X	X	X		3.2
Develop/Submit MMR PQP for Approval				X*	3.2.2
Submit Subcontractor Quality Plan(s) for Approval				X*	3.2.6
Attend Quality Kick-Off Meeting	X	X	X	X	3.2.8
Review Provided Signature Authority List	X	X	X	X	3.4.3
Develop/Submit ITP for Approval				X*	3.5.6
Develop Equipment Calibration List				X*	3.6.2
Develop ITR Matrix				X*	3.7.1
Submit Quality Audit Register		X		X	3.13.1
Daily (As Required):					
Review Approved Subcontractor Quality Plan(s)	X	X	X		3.2.6
Review Provided Dwg./Spec. Log	X			X*	3.4.1
Maintain "Master" Dwg. and /or Spec. Book				X*	3.4.1
Issue to MMR Field Personnel New /Revised Drawings and/or Specifications				X*	3.4.1
Review Provided Signature Authority List	X	X	X	X	3.4.3
Complete Red Line Drawing(s)	X	X	X	X	3.4.4
Review Quality Procedures and Complete ITR's as per Approved ITP		X	X		3.5.6, 3.15, and 3.16
Update Equipment Calibration List				X*	3.6.2
Update ITR Matrix				X*	3.7.1
Issue Quality NCRs and/or Update Log				X*	3.8
Coordinate /Monitor Third-Party Testing	X	X	X		3.5.4
Complete CAR/PAR		X		X	3.9
Issue Surveillance Reports and/or Update Log		X	X	X	3.10
Monitor/Inspect Material and Equipment Deliveries for Shortages, Incorrect Orders, Damages, etc.**	X				3.11.3
Inspect Material and Equip. Stored and Preserved on jobsite**	X	X	X		3.11.4
Release Material/Equipment to Field Personnel for installation**	X				3.11.8
Maintain/File Quality Documents				X*	3.12.1
Complete Audit Finding Report		X			3.13.3
Complete Quality Incident Report		X			3.13.4
Coordinate Quality/Vendor Training				X*	3.14
Periodic:					
Submit Quality Turnover Packages				X*	3.5.5
Attend Quality Progress Meetings and/or Submit Reports		X			3.7.2
Complete Subcontractor Audit		X	X		3.13.2
Perform Factory Inspection(s) as per Contract/Agreement		X			3.13.5
Project Completion:					
Submit Quality Turnover Packages				X*	3.5.5
Gather records for Record Storage Procedure	X	X	X	X	3.12.4

Legend:

* MMR project management team, Project Quality Coordinator, and/or QC Inspector to conduct these activities if Document Control personnel are **NOT** assigned to this project

** Refer to MMR Procurement Plan, latest edition, for additional information

3.4 Document Control

3.4.1 Drawing and Specification Distribution(s)

The project authorized quality personnel shall receive, date, distribute, and document new and revised drawings and specifications to MMR personnel and/or departments that have been furnished by others (i.e., client, owner, engineer of record, etc.).

Master Drawing and Specification Book:

A. A Master Drawing and Specification Log furnished by others (e.g., client, owner, engineer of record, etc.) will aid in verifying MMR is implementing the correct revision dates of documents received by MMR.
B. Verification of the latest revisions shall be documented by updating the "Master" copy book by removing and replacing outdated drawings and specifications with the new provided versions. The outdated documents will be noted "VOID" to assist in distinguishing between the latest drawing and specification issue.
C. The project authorized quality personnel shall maintain a "Master" copy of all supplied drawings and specifications as well as customer documents (i.e., inspection forms, red line drawings, etc.). The records shall be stored as per Section 3.12.

3.4.2 Quality Reporting Documentation

A. Quality reporting documentation consists of the following: Training Records (TRs), inspection/test forms, ITPs, NCRs, SURs, etc.
B. Documentation will be filed as hard and/or scanned electronic copies with computer software data system records as needed to assist in the tracking of area/system completions in order to submit turnover packages as part of our evidence of conformance. The project authorized quality personnel shall be responsible for the data system. Refer to Section 3.7 for additional information.
C. All documentation shall be legible and written in the English language unless required to do so differently.
D. All records shall be written in blue ink. The exception being "red line" (aka As-built) drawings that typically note the revisions in red.
E. Unused sections of forms shall have either an "N/A" or diagonal line filled in; no spaces are to be left blank.
F. Photo-static copies of quality documents and drawings shall be allowed under the conditions that they are of sufficient quality and the text, symbols, etc. are clearly identifiable.
G. The use of correction tape or liquid fluid is not allowed.
H. All captured records shall be filled in the forms at the time of the inspection, test, audit, etc. Transcribing of data is not allowed.

3.4.3 Signature Authority List

A. A Signature Authority List (SAL) should be provided to MMR by client, owner, etc. if required per specifications, contract, agreement, etc. It will consist of the signature information of all quality personnel, vendors, engineers, etc. assigned to the project that are authorized to sign any/all quality documents as per contract or agreement. The SAL shall be responsible for the validation of signatory requirements in the contract or agreement.
B. MMR project authorized document control, quality, or Administration personnel will maintain the log in an effort to determine signature of documents and the validity of the signatory. No quality document is to be signed unless the signature is logged prior to signing. Only accepted and approved signatures have the authority to sign any documents in the scope of the contract or agreement.

C. MMR project authorized personnel will inspect documents, materials, and/or equipment and report any invalid or non-recognizable signatures to Document Control or other authorized designated personnel.
D. All vendors/suppliers presenting equipment, materials, or tools for delivery shall be included in the SAL for future validation purposes.

3.4.4 **Red Line Drawing(s)**

MMR has the ability to produce red line (aka As-built) drawings to document field changes made on working drawings (supplied by others) as a result of a Change Order, RFI, SUR, owner verbal or written directive, etc. Field changes are typically noted in red ink (color of choice) and can consist of revised circuit numbers, conduit routing, equipment locations, etc. The drawings can either be submitted individually on a periodic basis or included as part of MMR's turnover package documentation.

Red Line Master Book:

Once revisions have been noted on the drawing(s), a "red line master book" can then be created at the discretion of the MMR project management team that contains the latest revisions. Any outdated drawings will be noted or simply discarded to assist in distinguishing the latest revisions in the book.

3.4.5 **Submittal(s)**

MMR along with its affiliated subcontractor(s) will provide complete submittal packages as specified in the contractual documents (e.g., contract, specifications, etc.). Once the submittal and client approval process has been completed by MMR's project management team, information will then be released. The Quality Department will utilize this information to validate that the correct material and/or equipment was released to order, delivered to the jobsite, and further researching the quality installation and/or testing requirements prior to performing the task if not indicated within the provided contractual documents.

3.4.6 **Record Storage**

Project generated documentation and records will be stored as per Section 3.12.

3.5 Quality Inspection and Test Procedures and Forms

3.5.1 Quality Inspection/Test Procedures

Quality inspection and testing procedures and the corresponding forms that are required for this project are indicated in Sections 3.15 and 3.16. Please note that in the event that a Reference Standard is provided/available, it will take precedence over MMR inspection/test procedures, desired obtained results, and/or guidelines.

3.5.2 Calibrated Equipment Produced Data

In the event that calibrated equipment has the capability of printing a test or calibration report the printed report shall serve as the data for the performed tests. The report shall be attached to the applicable inspection and/or test form and included as part of the turnover package(s). Refer to Section 3.6 for additional information.

3.5.3 Factory Test/Calibration

In the event that a factory test/calibration has been performed prior to delivery and is deemed adequate for the installation, the factory test/calibration form shall be attached to the applicable test form and included as part of the turnover package(s).

3.5.4 Third-Party Testing

MMR will solicit and coordinate third-party testing as required by contract SOW and/or client, owner, etc. with written direction. Testing criteria will be composed of project drawing(s), specification(s), requirements (i.e., NETA certified company) in addition to governing codes for industry standards (i.e., ABS, IEEE, NEC, etc.). Testing compliance can be verified via the Subcontractor Inspection Form. Refer to Subsection 3.13.2 for additional information.

3.5.5 Quality Turnover Packages

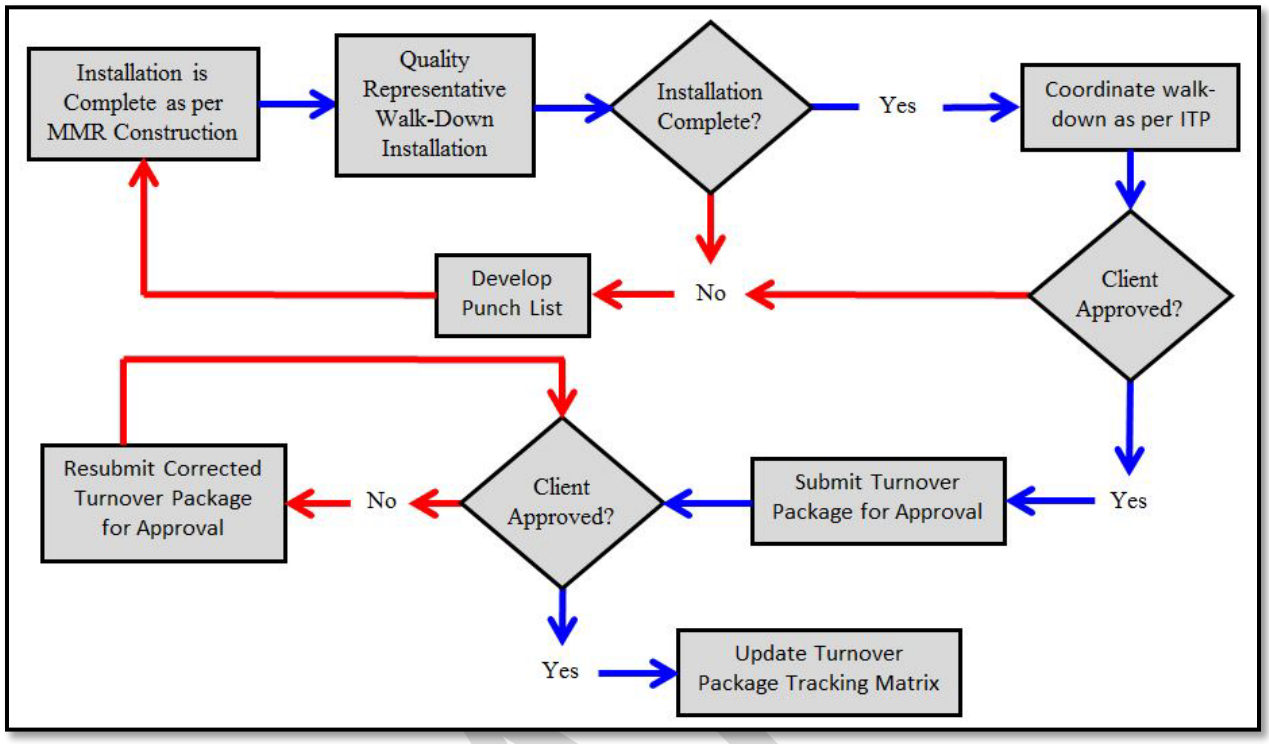
To verify project SOW compliance, MMR project authorized quality personnel have the ability to provide Quality Turnover Package(s) which may be submitted periodically (upon conclusion of each inspection/test) or upon the project substantial completion date at client, owner, etc. discretion.

Required Documentation:
The documentation submitted will be determined by client, owner, engineer, etc. **AFTER** review of contract, specifications, drawings, etc. but **PRIOR TO** commencement of work and agreed upon by all parties involved including MMR.

Quality Compliance Acceptance:
Project quality compliance is accepted upon conveyance of turnover package(s) with signature approvals by a MMR quality representative and client, client representative, and/or owner.

Package Documentation Examples:
The Quality Turnover Package(s) can consist of, but not be limited to, the following: completed Inspection and/or Test Forms with signature approval(s), Factory Acceptance Test (FAT), Third-Party Tests, specifications, drawings, red line drawings, material traceability certificates, warranties, equipment calibration certificates, punch list, submittals, etc. Each turnover package also has the capability to include a dossier that acts as a coversheet providing an overview/list of items that is contained within.

Quality Turnover Package Submittal Flowchart:



3.5.6 **Inspection and Test Plan**

A. The project authorized quality personnel has the ability to create a matrix of inspections/tests via an Inspection and Test Plan (ITP), as required, which are to be performed per contract or agreement assuring all requirements are met. The ITP shall be reviewed and acknowledged between MMR and the client and/or owner to ensure a mutual agreement **PRIOR TO** commencement of SOW. The inspection and test forms found in Section 3.16 shall be maintained by the project authorized quality personnel for review as requested.

B. The client, owner, etc. has the ability to specify audit (A), hold (H), monitor (M), or witness (W) an inspection/test activity, noted as A, H, M, W, or a combination of two letters or more.

Notes:

- Both quality inspections and/or testing typically occurs at the discretion of the facility owner, client representative, engineer of record, etc. to which are documented on the ITP beforehand
- Definitions of the activities are noted in Subsection 3.1.10.

C. A Notification of Readiness for Inspection (NRI) Form can be administered by the project authorized quality personnel for the noted hold and/or audit activities if so requested by client, owner, engineer, etc. in writing.

3.5.7 **Record Storage**

Quality inspection and testing procedures and records, calibrated equipment produced data, FAT test, Third-party testing, quality turnover packages, and ITP shall be documented and filed with the project quality documents. Upon project completion, the records will be stored as per Section 3.12.

3.6 Inspection, Measurement, and Testing Equipment (IMTE)

3.6.1 Technically Knowledgeable Person

A "Technically Knowledgeable Person" (i.e., engineer, manufacturer, etc.) will determine and provide the Reference Standard(s) required to MMR project authorized quality personnel as per contract or agreement by reviewing the drawings, specifications, equipment, installations, etc.

3.6.2 Equipment Calibration List

The project authorized quality personnel will be responsible for creating and maintaining a project Equipment Calibration List (ECL) if it is not performed by the projects assigned District Office. The list will document all of the projects assigned calibrated IMTE's by their unique, unambiguous identifier such as model, manufacturer, description, serial number, calibration date, calibration expiration date, and comments.

3.6.3 Calibrated IMTE Inspection

All IMTE and its affiliated components (e.g., test leads, test probes, etc.) are inspected upon delivery to the project jobsite prior to utilization for any damage, calibration data was provided, calibration tags/stickers are present and valid, and verifying it aligns with the MMR purchase order.

3.6.4 Calibrated IMTE

All calibrated IMTE will be provided by MMR and certified/recertified by an independent testing lab holding an ISO/IEC 17025 certification and/or using NIST traceable devices. If working under either the MMR Panel Shop or Integration Center UL guidelines, it is recommended that the testing facilities be accredited under ISO/IEC 17025 and traceable to SI (International System) units. The use of MMR employee owned calibrated equipment is not permitted.

3.6.5 Frequency of Recertification

Frequency of recertification shall be as per Reference Standard (i.e., drawings, specifications, facility requirements, manufacturer recommendations, etc.). If the frequency is **NOT** furnished, MMR will provide calibrated equipment on one (1) year intervals.

3.6.6 Calibration Sticker/Tag

A certification sticker, label, or tamper resistant tag with the calibration company name, calibration date, calibration due date, etc. shall be attached to the IMTE permanently.

3.6.7 IMTE Removed from Service

IMTE shall be removed from service, segregated, and an MMR "Out of Calibration" sticker/tag affixed **IMMEDIATELY** if they appear damaged, calibration dates expired, and/or test data questionable. The questionable standard shall then be field verified by a similar device if available or the device itself is sent for recertification. When "As-Found" results are obtained, the project authorized quality personnel and a "Technically Knowledgeable Person" shall evaluate all tests performed with the Reference Standard and determine what, if any, retesting is required.

3.6.8 "As Found" Data Not Within Tolerances

If "As-Found" data of IMTE that was sent for recertification does not fall within the listed tolerance of the device, the project authorized quality personnel, a "Technically Knowledgeable Person," and/or a customer representative shall evaluate the percentage of error and determine what, if any, retesting is required.

3.6.9 **IMTE Storage**

IMTE shall be maintained in a location which will deter theft, protection of adverse environmental conditions, and is consistent with the manufacturer's recommendations for storage and use. The IMTE shall only be available to "Responsible Persons" who are performing activities requiring their usage.

3.6.10 **Calibration Certificate**

Calibration certificates (i.e., "As Found" data) shall be provided for all required calibrated equipment that is supplied by vendors, MMR, etc. to insure the validity of previous testing. The records will be kept by the project authorized quality personnel and **MUST BE** maintained on site or assigned district office if space is not available on site for the duration of the project.

3.6.11 **Record Storage**

Calibrated Testing Equipment documentation shall be documented and filed with the project quality documents. Upon project completion, the records will be stored as per Section 3.12.

3.7 Inspection and Test Status:

3.7.1 Inspection/Test Matrix

Project authorized quality personnel have the ability to create a matrix that tracks the status of each inspection and/or test reports (ITR's) MMR performs as per contract, agreement, ITP, etc. requirements. The matrix can be made available to review if so requested by client, owner, engineer, etc.

3.7.2 Quality Progress Reporting

Depending on what is agreed to by all parties during the Quality Kick-Off Meeting, the project authorized quality personnel on a periodic basis can perform one, two, or a combination of all of the following:

A. Attend quality progress meeting(s) hosted by the client, owner, or engineer, etc. if the opportunity presents itself.

B. Provide written documentation updates via Quality Progress Reports (QPR) or similar form(s) summarizing the current status of MMR's overall quality records to date. Essentially, the furnished information is an overall synopsis of information that is extrapolated from the Inspection and/or Test Matrix.

   Furnished Information Examples:
   The information provided by MMR can entail, but not limited to, the following: Number of inspections/tests completed to date; Meeting discussion topics; Status of quality audits, NCRs, CARs, and SURs this month; Action items/concerns; etc.

C. Depending on contractual agreement, MMR representatives can walk the project jobsite with the client, owner, or engineer, etc. present. This would not only verify contractual quality compliance, but also reinforce the agreed upon audit/hold/monitor/witness inspections and/or tests points as noted on the ITP.

3.7.3 Nonconforming Items

Nonconforming items shall be identified and processed per Section 3.8 Quality Nonconformance.

3.7.4 Record Storage

Inspection and test records shall be documented and filed with the project quality documents. Upon project completion, the records will be stored as per Section 3.12.

3.8 Quality Nonconformance

3.8.1 Identify Deficiencies Category

The project authorized quality personnel shall identify quality deficiencies, if any, during inspection, testing, surveillance, auditing, etc. activities. Reporting of the deficiencies shall conform to one of the following:

A. Repair – Repair of nonconforming conditions shall be made in accordance with approved repair procedures. The repair procedures shall include appropriate inspection and tests to verify the acceptability of the repair.
B. Scrap – If the item is unfit for use, it shall be removed and returned to the original purchasing party.
C. Use-As-Is – Item conforms to specific specifications and conditions established by the NCR committee for its use.

3.8.2 Nonconformance Report

Quality nonconforming conditions that are noted during the QC inspections, testing, surveillances, auditing, etc. shall be documented on the Nonconformance Report (NCR).

3.8.3 Deficiency Reporting

The project authorized quality personnel shall identify the deficiency to both the MMR Document Control (if present) for tracking purposes and project management to establish a date when the deficiency will be corrected.

Material/Equipment Deficiency:
If the deficiency pertains to material/equipment, then the item(s) in question will be quarantined until their replacement(s) are located, delivered, substituted, and/or omitted and all stakeholders that were/are effected/affected accept NCR disposition.

3.8.4 Supporting NCR Documentation

Any/all supporting NCR documentation (i.e., Audit, Surveillance, RFI, etc.) shall be placed in the log book with appropriate follow-up control.

3.8.5 Client Approval

Client (i.e. end user, engineer, contractor, owner, etc.) approval will be obtained prior to disposition of an NCR.

3.8.6 Corrective Action

Upon disposition and sign off of the original NCR, the project authorized quality personnel shall implement corrective action in conjunction with the Site Manager (if applicable). Refer to Subsection 3.9.1 for additional information.

3.8.7 NCR Log

The initial as well as the signed NCR can be tracked on an NCR Log at the discretion of the project authorized quality personnel.

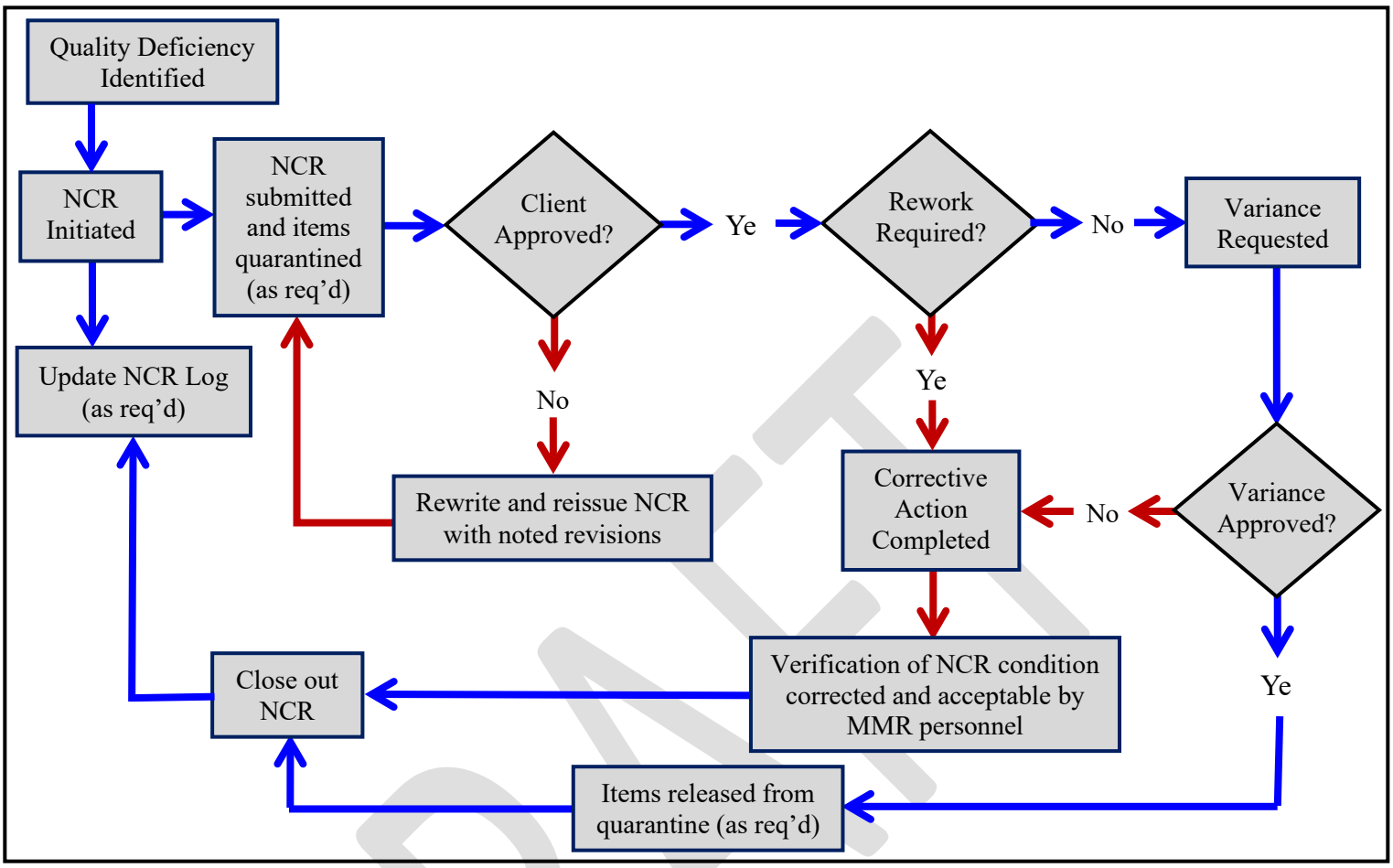
3.8.8 NCR Corrected Verification

Upon notification that corrective action has been completed, the project authorized quality personnel shall verify that the nonconforming condition is corrected and acceptable.

3.8.9 Record Storage

NCRs shall be documented and filed with the project quality documents. Upon project completion, the records will be stored as per Section 3.12.

3.8.10 **Quality NCR Flowchart**



3.9 Corrective and Preventive Action

3.9.1 Corrective Action Initiated

The project authorized quality personnel can complete a Corrective Action Request (CAR) if an action is required in order to prevent a recurrence. It is essentially a reactive approach as a result of an NCR, Audit Finding Report, Quality Incident Report, customer feedback, Surveillance Report, etc. The exception being if a random mistake was made and it has insignificant consequence, a CAR will not be issued.

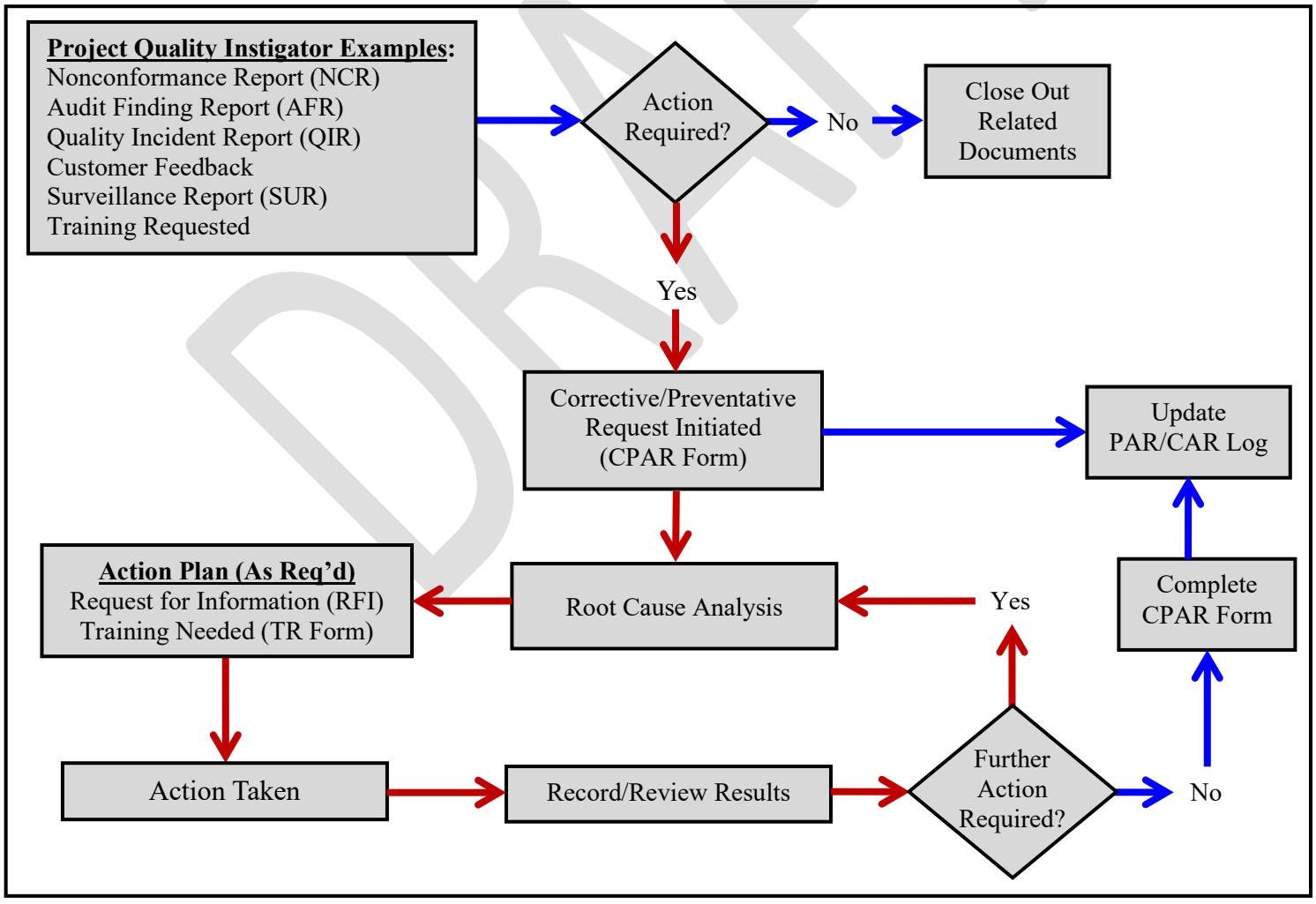
3.9.2 Preventive Action Initiated

Any MMR employee can suggest, initiate, and/or complete a Preventive Action Request (PAR) with assistance from the project authorized quality personnel if an action can be taken to eliminate the potential of an NCR and/or quality incident. It is a proactive approach that takes place during the planning, preparatory, and monitoring installation phases of the project. The most common PAR is training conducted by either the MMR Quality Department or a Vendor which is documented per Section 3.14.

3.9.3 Record Storage

CARs/PARs shall be documented and filed with the project quality documents. Upon project completion, the records will be stored as per Section 3.12.

3.9.4 Corrective and Preventive Action Flowchart



3.10 Surveillances

3.10.1 Surveillance Report

The project authorized quality personnel has the ability to initiate a field Surveillance Report (SUR) on a periodic basis as required to document a product NCR and/or deficiencies in service, QA/QC, Design, Audit, Manufacturing, Purchasing, etc.

3.10.2 Performed

Surveillances should be performed on activities in progress to ensure that the project requirements and specifications are observed as dictated by the project authorized quality personnel on a periodic basis or as required.

3.10.3 Issued

MMR project authorized personnel shall issue Surveillance Reports to all parties necessary in a timely fashion to minimize any corrective actions that might be necessary. Refer to Subsection 3.9.1 for additional information.

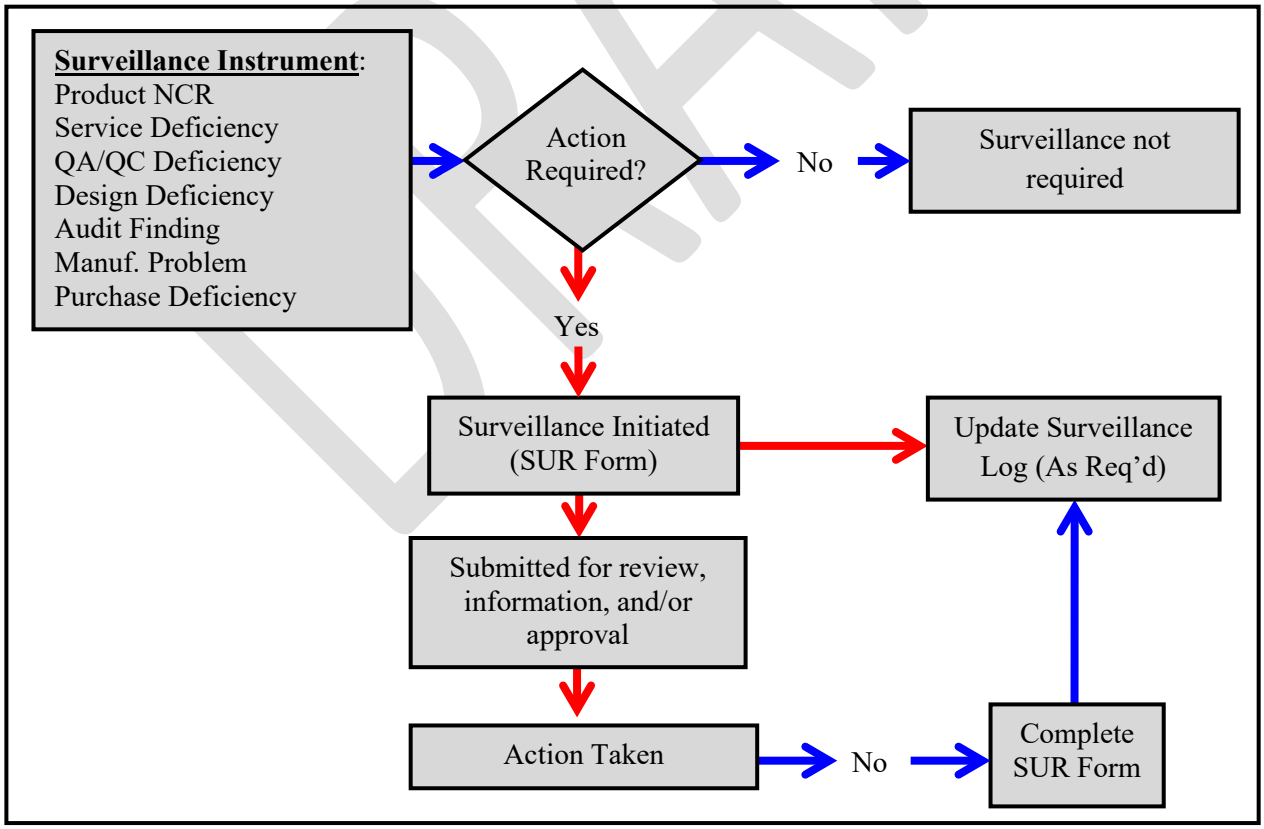
3.10.4 Surveillance Log

Please note that it is at the discretion of the project authorized quality personnel if a Surveillance Log is created and maintained.

3.10.5 Record Storage

Surveillances shall be documented and filed with the project quality documents. Upon project completion, the records will be stored as per Section 3.12.

3.10.6 Surveillance Flowchart



3.11 Shipping, Receiving, Handling, Storage, and Preservation

3.11.1 Instructions

Instructions for receiving, handling, care, and maintenance of material and equipment shall be provided per manufacturer's recommendations and requirements of the contract or agreement if different from industry standard.

3.11.2 Shipping

MMR relies on its vendors/suppliers to provide all shipping (i.e., inventory control, packing, crating, freight, customs, etc.) coordination to the jobsite **UNLESS** noted otherwise in the contract and agreed upon by client/owner and MMR. Every precaution will be taken so that all requirements are met if different than industry standard so as to not disrupt the construction schedule.

Exception**:**
The MMR Panel Shop, Integration Center, and Safety Services may be directly responsible for packing, crating, and shipping items (i.e., control panels, instrument stands, enclosures, etc.) to the jobsite that are assembled within their facilities as per manufacturer's recommendations and/or requirements of the contract or agreement if different than industry standard.

3.11.3 Monitor Deliveries

The MMR project authorized field supervision and/or purchasing representative in conjunction with MMR quality representatives on a periodic basis has the ability to monitor materials and/or equipment as it is received on site to ensure the project requirements are met. Anything that is deemed insufficient (i.e., shortages, overages, damaged, incorrect, etc.) is segregated from the remaining items and a plan of action will be formulated by all stakeholders to determine the disposition on the replacement(s).

3.11.4 Storage and Preservation

Material and equipment will be stored and preserved (as required) as per the manufacturer's recommendations, contract, agreement, specification, and/or drawings. If the storage and preservation information is not provided or conflicting, MMR has the option to submit an RFI on any equipment or material to the client, engineer, owner representative, and/or owner to determine the disposition. Otherwise, MMR will store/preserve the equipment or material as industry standard dictates.

Storage by Others**:**
MMR **WILL NOT** take possession or sign any Chain of Custody documentation on material and/or equipment stored either offsite or onsite by others (client, owner, manufacturer, etc.) until MMR project authorized personnel have had an opportunity to inspect the items for project compliance, damage, shortages, etc. In addition, MMR **WILL NOT** be held responsible if in fact the material and/or equipment was not stored or preserved as recommended by manufacturer, specifications, industry standard, etc. prior to MMR taking possession.

Onsite Material and Equipment Storage**:**
Even though there are exceptions to the rule, MMR will typically store material and/or equipment onsite in one of following ways:

1) For small items, a storage container can be utilized if they are able to be moved without the use of equipment (i.e., forklift, pallet jack, etc.), able to be stored in a non-climatized space, and require protection from both the elements (i.e., rain, snow, hail, etc.) and theft. Examples of small items being glands, termination kits, lugs, instruments, light fixtures, enclosures, etc.

2) For large bulk items, they are stored in a laydown area with forklift access on pallets, dunnage, racks, etc. to avoid being immersed in water, mud, etc. Examples of large bulk items being cable tray, tubing, conduit, cable reels, etc.
3) If items require a climatized space prior to installation, MMR will coordinate with client and/or owner on the possibility of using a location onsite that is available as a staging area, temporary offsite storage, or simply rescheduling the delivery date to when the final location will be ready for installation.

Hazardous Material:
MMR **DOES NOT** directly handle or store hazardous material(s) either on or offsite at any given time; however, MMR will rely on its vendors/suppliers for the proper transport, storage, installation, disposal, etc. of the item(s) in question if a situation does arise as to its necessity. Refer to MMR's HSE Manual for additional information.

Expired Material:
If MMR comes across any expired material (e.g., window transit lubricant), it will be properly disposed of as per the appropriate Reference Standard (e.g., MSDS, manufacturer literature, etc.).

3.11.5 Loss/Damage Prevention

MMR will store material and equipment in the designated area(s) as dictated by owner, client, contract, agreement, etc. on the project jobsite to prevent loss and/or damage prior to items being released for installation.

3.11.6 Equipment Preservation

If equipment preservation is required per the contract, agreement, specifications, and/or drawings as part of MMR's SOW, MMR has the capabilities to document any/all items via Equipment Preservation Log.

3.11.7 Material/Equipment Disassembled, Removed, or Reused

If material/equipment is required to be disassembled or removed from service after installation to be discarded or reused as per request (i.e., NCR, CAR, QIR, RFI, owner verbal directive, etc.), it will be done so in the best manner possible to eliminate any damages and/or hazards via MMR Job Safety Analysis (JSA) or project approved equal form. Refer to the MMR Safety Representative and/or Project HSE Plan for additional information.

Material and/or Equipment Storage:
Material and/or equipment that was disassembled and removed from service with the intent of reinstallation at a later date will be stored in the intern as per manufacturer, client, owner, specifications, contract, etc. requirements. Refer to Subsection 3.12.3 for additional notes.

Material and/or Equipment Disposal:
Material and/or equipment that was disassembled and removed from service that will not be reinstalled at a later date will be discarded by appropriate means and/or as directed by client, owner, governing code(s), etc.

Hazardous Material/Equipment Disposal:
MMR **EXCLUDES** any/all hazardous material and/or equipment disposal unless contractually agreed upon by MMR prior to commencement of work. If a condition were to arise as to a hazardous disposal falling under MMR's Scope of Work, then a qualified subcontractor will be implemented that has the ability to perform this task directly. Refer to MMR's HSE Manual, latest edition, and Subcontractor Prequalification Procedure for additional information.

3.11.8 **Material/Equipment Released for Installation**

MMR project authorized Purchasing Agent and/or Material Manager in conjunction with the project management team will release material/equipment to field personnel for installation as it is received on the jobsite. This process is often tied to the client required submittal approval procedure if so required.

3.11.9 **Manufacturer Provided Literature**

Manufacturer provided literature (i.e., installation manual, warranty, FAT test results, etc.) will be transmitted to the owner, client, engineer, etc. and/or filed along with the quality records as part of the turnover documentation. Refer to the turnover package section within the MMR Project Quality Plan, latest edition.

3.11.10 **Record Storage**

Material/Equipment receiving, handling, storage, and preservation reports shall be documented and stored with the project quality documents. Upon project completion, the records will be stored as per Section 3.12.

3.11.11 **MMR Procurement Plan**

Refer to MMR Procurement Plan, latest edition, for additional information.

3.12 Control of Documents and Records

3.12.1 Project Documents and Records

Project documents and records that are MMR generated shall be retained on-site for the duration of MMR's site presence if office space (i.e., jobsite trailer, etc.) is available and occupied by MMR personnel. If jobsite office space is **NOT** available, the project documents and records will be uploaded onto M-Files on a periodic basis and/or stored at the assigned MMR District Office. Please note that M-Files is an intranet software program only accessible to MMR employees.

Document Examples:
Documents include, but are not limited to, the following: PQP, ITP, quality procedures, quality inspection/test forms, drawings, specifications, contract, manufacturer testing guidelines, reference standards, etc.

Record Examples:
Records include, but not limited to, the following: quality reporting forms, quality audits, quality inspection/test records, FAT Tests, etc.

3.12.2 Vendor Supplied Documentation

All vendor supplied documentation (i.e., software, reports, tests, etc.) that is provided throughout the duration of the project will remain in the custody of the MMR Document Control and/or quality personnel. Upon project completion, all vendor supplied documentation and related project specific information will be formally transmitted to the client/customer as required. Refer to Quality Turnover Packages, Subsection 3.5.5, for additional information.

3.12.3 Record Storage

Upon project completion, MMR generated records will be sent to the MMR designated facility, warehouse, etc. where they are stored for the duration of five (5) years as hard copy files or electronically via USB jump drive, external hard drive, CD, etc. Upon conclusion of the five (5) years, the records will then be destroyed after approval from upper management.

Five (5) Year Exception:
MMR will retain the project records longer than five (5) years if contractual obligations dictate so.

M-Files Exception:
The exception to sending the records to the MMR designated facility, warehouse, etc. being if the project staff uploaded them either periodically during or upon conclusion of the project onto M-Files (intranet system). The records are then stored on a server until such time they are discarded, which is at a minimum of 5 years.

3.12.4 Record Storage Procedure

Upon project completion, the Record Storage Procedure has the ability to be implemented at the discretion of the MMR project quality authorized representative if it is determined that more than one (1) box will be required for the storage of records. The procedure was published to ease in the identification, storage, protection, retrieval, retention, and disposition of records.

Note:
The record storage procedure will only be utilized if electronic data storage is not a viable option during or after the project has been completed.

3.13 Quality Audit Program

3.13.1 Quality Audit Register

MMR has the ability to submit a Quality Audit Register for approval if so requested by the contract, client, owner, engineer, etc. It may consist of the type of quality audits (e.g., drawing, specification, MMR internal PQP, etc.) conducted as well as dates that they will be taking place during the course of the project.

3.13.2 Subcontractor Audit(s)

The project authorized quality personnel has the ability to audit each subcontractor on the project jobsite that works directly for MMR contractually via Subcontractor Inspection Form or similar client, owner, etc. supplied form. This activity is performed to verify and ensure the labor, inspection, testing, materials, equipment, quality, etc. requirements are adhered to as stated in the contract or agreement. Refer to Subsection 3.13.5 for additional information on offsite inspections and/or testing.

Frequency:
A subcontractor audit should be initiated prior to their commencement of work upon arrival to the jobsite and every month afterwards.

Exception:
1. MMR reserves the right to not conduct any audits if said subcontractor holds and provides a copy to be filed of any type of active third-party certification(s) (i.e., UL listing, ISO, NETA, API, etc.).
2. MMR will **NOT** conduct an audit on a subcontractor that provides temporary material and/or equipment that falls under MMR's contractual SOW. Examples being fence rental, scaffolding, portable toilets, storage containers, etc. Essentially, any company that is **NOT** providing a permanent installation and/or testing service.

3.13.3 Audit Finding Report

An Audit Finding Report (AFR) will be generated by the project authorized quality personnel to document any lack of evidence of compliance discovered during an internal or external audit.

Auditee Action:
Auditee proposed action, if noted, is presented as a recommendation and/or suggestion to remedy the CAR and/or NCR.

Follow-Up Action:
Follow-up action, if required, will entail subsequent periodic review of items noted to ensure corrective actions are being properly implemented.

3.13.4 Quality Incident Report

A Quality Incident Report (QIR) can be completed by a project authorized quality personnel and any/all other associated parties if it is deemed an installation and/or test failure occurred as a result of poor quality installation, material, equipment, MMR vendor manufacturing process, etc. The report will capture the estimated cost(s), description/finding(s), investigation summary, root cause analysis, etc.; so that, a thorough investigation can be performed to determine the cause and how it can be mitigated or eliminated altogether in the future.

3.13.5 Offsite Inspection(s) and/or Testing

MMR **EXCLUDES** any/all offsite, including factory, inspections and/or testing unless agreed upon in writing by all parties involved **PRIOR TO** the actual inspection and/or testing taking place. This is mainly due to the fact that MMR does not offer any type of

design or engineering services nor fabricate material, equipment, etc. that will be implemented on the project as a permanent installation.

Note: All installed products that are part of MMR's contractual SOW are either directed (verbally or written) or specified on provided drawings, specifications, or contract by the client, owner, engineer, etc.

If Offsite Inspection(s) and/or Testing Required:
MMR will be reimbursed for all expenses including, but not limited to, lodging, air fare, mileage, hourly wage, meals, etc. that pertain to any/all offsite activities if MMR is required to perform/attend offsite inspections, third-party testing, and/or monitoring of Subcontractors, Suppliers, Vendors, etc. If a factory or vendor inspection is performed by MMR, it will be recorded on either the Factory Inspection Form (FIF) or Vendor Inspection Form (VIF) respectively.

3.13.6 Record Storage

Audits and various supporting reports shall be documented and stored with the project quality documents. Upon project completion, the records will be stored as per Section 3.12.

3.14 Personnel Qualifications and Quality Control Training

3.14.1 Craftsmen/Technical Specialist Validation

MMR Project Management and/or HR shall take all of the necessary steps to ensure that the project team members and craftsmen personnel are competent based on experience, qualification, and training as well as meet project requirements (if any) to perform their assigned task(s) effectively and efficiently during the selection process. The MMR HR Department maintains employee resumes and qualification record(s). Refer to the MMR HR Department for additional information.

3.14.2 Project Quality Plan Training

MMR project authorized quality personnel will be subjected to an on-site quality training program initiated by the CQM, CQC/M, or Quality Coordinator if either one of the following conditions exist:

A. If training has not been provided in the past
B. If there are project specific quality requirements that are noted in this PQP as stipulated by the client, owner, etc. and are part of the contractual obligations.

3.14.3 Quality Self-Paced Training

MMR provides its employees, regardless of classification, an opportunity to learn the most common electrical and instrumentation installations and testing we perform. This self-paced on-line training also includes supporting HSE, tools, information technology, human resources, purchasing, project controls, workforce development, etc. topics.

3.14.4 Vendor Training

Project authorized quality personnel have the ability to solicit jobsite vendor training for MMR craftsmen from a certified trainer for the installation, storage, maintenance, etc. of either their material or equipment as specified in the contract/agreement as deemed necessary. Refer to both the vendor and certified trainer definitions as noted in Subsection 3.1.10.

3.14.5 Training Recorded

A record of both MMR and vendor training shall be documented via Preventive Action Request (PAR) and/or a Training Record (TR) form and submitted to the MMR Quality Department along with any accompanying certificates so that they can be uploaded to MMR's intranet system (M-Files) for future reference. Upon training completion, the records will be stored as per Section 3.12.

3.14.6 MMR Workforce Development Plan

Refer to MMR Workforce Development Plan, latest edition, for additional information in reference to employee attraction and recruiting, competency, qualifications and training, retention, and job descriptions.

3.15 Inspection and Test Procedure(s)

No.	Description	Published Date
INSP0001 R4	Underground Conduit Inspection	12/05/23
INSP0002 R4	Grounding System Inspection and Testing	07/10/20
INSP0003 R5	Aboveground Conduit Inspection	07/10/20
INSP0004 R5	Cable Tray Inspection	06/06/23
INSP0005 R8	Cable Inspection and Testing	11/29/23
INSP0006 R4	Transformer Inspection and Testing	07/10/20
INSP0007 R4	Motor Control Center Inspection and Testing	07/10/20
INSP0008 R4	Bus Duct Inspection and Testing	07/10/20
INSP0009 R4	Electrical Switchgear Inspection and Testing	07/10/20
INSP0010 R3	Panelboard and Load Center Inspection and Testing	07/10/20
INSP0012 R5	Electrical Lighting Inspection and Testing	12/12/23
INSP0014 R3	Battery Inspection and Testing	07/10/20
INSP0017 R3	Electrical Receptacle Inspection and Testing	07/10/20
INSP0018 R4	Junction Box Inspection	07/10/20
INSP0020 R2	Lightning Protection Inspection and Testing	07/10/20
INSP0021 R3	Contact Resistance Inspection and Testing	07/10/20
INSP0022 R2	Control Panel Inspection and Testing	07/10/20
INSP0023 R2	Uninterruptible Power Supply Inspection and Testing	07/10/20
INSP0026 R2	Miscellaneous Equipment Inspection	12/13/22
INSP0027 R1	Electrical Disconnect Inspection	07/10/20
INSP0028	Cable Bus Inspection and Testing	07/27/21
INSP0050	Automatic Transfer Switch Inspection	05/19/22
INSP0055 R2	Communication Cable Inspection and Testing	07/10/20
INSP0056 R2	PA/GA Inspection and Testing	07/10/20
INSP0061 R4	Bolt Torque Procedure	07/10/20
INSP0064 R2	Electrical Circuit Termination Verification	07/10/20
INSP0065 R1	Equipment and Material Preservation Inspection	07/10/20
INSP0070 R3	Record Storage Procedure	09/03/13
INSP0079	Cable Tray Support Inspection	08/08/24
INSP0080 R3	Electrical and Instrumentation Support Inspection	07/10/20
INSP0081 R2	Cable and Tubing Transit Inspection	07/10/20
INSP0083	MV Termination Inspection	08/09/24
INSP1005 R2	Cable Delivery Inspection	07/10/20
INSP1015 R2	Temporary Equipment Inspection and Testing	07/10/20
INSP6005 R3	Fiber Optic Cable Inspection and Testing	07/10/20

Client Provided Procedure(s):

N/A	N/A	N/A

3.16 Inspection and Test Form(s)

Form No.	Description	Published Date
QF12-01it	Underground Conduit Inspection and Test	12/01/23
QF12-02i	Grounding System Inspection	07/10/20
QF12-02t	Grounding System Test	07/10/20
QF12-03i	Aboveground Conduit Inspection	07/10/20
QF12-04i R1	Cable Tray Inspection	06/06/23
QF12-05i	Cable Inspection	07/10/20
QF12-05it	Cable Continuity Inspection and Test	07/10/20
QF12-05ta R1	Cable Insulation Resistance Test by Phases	04/27/23
QF12-05tb	Cable Insulation Resistance Test	07/10/20
QF12-05tc	Medium Voltage High Potential Test	07/10/20
QF12-05td	Cable Insulation Resistance and Continuity Test	11/29/23
QF12-06ia	Dry Type Transformer Inspection	07/10/20
QF12-06ib	Liquid Filled Transformer Inspection	07/10/20
QF12-06ta	Transformer Insulation Resistance Test	07/10/20
QF12-06tb	Transformer Turns Ratio Test	07/10/20
QF12-07i	Motor Control Center Inspection	07/10/20
QF12-07t	Motor Control Center Test	07/10/20
QF12-08i	Bus Duct Inspection	07/10/20
QF12-08t	Bus Duct Test	07/10/20
QF12-09i	Electrical Switchgear Inspection	07/10/20
QF12-09t	Electrical Switchgear Test	07/10/20
QF12-10it	Panelboard and Load Center Inspection and Test	07/10/20
QF12-12i	Electrical Lighting Inspection	07/10/20
QF12-12t	Electrical Lighting Test	07/10/20
QF12-14ia	Battery Charger Inspection	07/10/20
QF12-14ib	Battery and Battery Rack Inspection	07/10/20
QF12-14ta	Battery Charger Test	07/10/20
QF12-14tb	Battery Test	07/10/20
QF12-17i	Electrical Receptacle Inspection	07/10/20
QF12-17t	Electrical Receptacle Test	07/10/20
QF12-18i	Junction Box Inspection	07/10/20
QF12-20i	Lightning Protection Inspection	07/10/20
QF12-20t	Lightning Protection Test	07/10/20
QF12-21i	Contact Resistance Inspection	07/10/20
QF12-21t	Contact Resistance Test	07/10/20
QF12-22i	Control Panel Inspection	07/10/20
QF12-22t	Control Panel Test	07/10/20
QF12-23i	Uninterruptible Power Supply Inspection	07/10/20
QF12-23t	Uninterruptible Power Supply Test	07/10/20
QF12-26i R1	Miscellaneous Equipment Inspection	12/13/22
QF12-27i R1	Electrical Disconnect Inspection	07/10/20
QF12-28i	Cable Bus Inspection	07/27/21
QF12-28t	Cable Bus Test	07/27/21
QF12-50i	Automatic Transfer Switch Inspection	05/19/22
QF12-61it	Bolt Torque Verification	07/10/20
QF12-64it	Electrical Circuit Termination Verification	07/10/20
QF12-65i	Equipment and Material Preservation Inspection	07/10/20
QF12-79i	Cable Tray Support Inspection	08/08/24
QF12-80i	Electrical and Instrumentation Support Inspection	07/10/20
QF12-81i	Cable and Tubing Transit Inspection	07/10/20
QF12-83i	MV Termination Inspection	08/09/24

QF15-15i R1	Communication Cable Inspection	11/01/22
QF15-15t	Communication Cable Continuity Test	07/10/20
QF15-17i	PA/GA Inspection	07/10/20
QF15-17t	PA/GA Test	07/10/20
QF20-11i	Cable Delivery Inspection	07/10/20
QF20-20it	Temporary Equipment Inspection and Test	07/10/20
QF60-05it	Fiber Optic Cable Inspection and Test	07/10/20

Client Provided Form(s):

N/A	N/A	N/A

3.17 Project Quality Plan Form(s)

Form	Description	Published Date
AFR-001 R1	Audit Finding Report	12/26/12
CDA-001	Core Drilling Approval	11/18/21
CPAR-001 R1	Corrective and Preventive Action Request	01/10/13
ECL-001	Equipment Calibration List	07/20/12
EPL-001	Equipment Preservation Log	05/08/13
ITP-001 R3	Inspection and Test Plan	07/10/20
NCR-001 R1	Nonconformance Report	07/10/12
NCRL-001	Nonconformance Report Log	07/27/12
NRIT-001	Notification of Readiness for Inspection and/or Test	11/15/18
NRITL-001	Notification of Readiness for Inspection and/or Test Log	11/15/18
PCC-001	Project Completion Checklist	06/03/13
QIR-001 R2	Quality Incident Report	10/15/14
RSL-001 R1	Record Storage Log	06/30/15
SI-001 R1	Subcontractor Inspection Form	04/08/16
SUR-001 R2	Surveillance Report	02/02/17
SURL-001	Surveillance Report Log	06/27/11
TR-001	Training Record	09/17/20

Client Provided Form(s):

N/A	N/A	N/A