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LETTER OF TRANSMITTAL

Submittal No.:019A

TO: **Marlene Gaeta,** Senior Engineer Construction Management
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MT JOB NO. 13007 **Date:** 09/09/13

RE: Former Kent Avenue Generating Station
Interim Remedial Measure
500 Kent Avenue
Brooklyn, New York

Purchase Order No. 4167052

WE ARE SENDING YOU ☒ **Attached** ☒ **Other: As Below**

COPIES		DESCRIPTION *REVISED*
1	**Spec:** **Item:** **Spec:** **Item:** **Author:**	01110 SUMMARY OF WORK 1.05 A Contractor Quality Control Plan 1.06 A Contractor Quality Assurance Plan 01400 QUALITY ASSURANCE / QUALITY CONTROL 10.3 A Submittals Contractor Quality Assurance / Quality Control Plan – *Revised* Maxymillian Technologies, Inc.

THESE ARE TRANSMITTED as checked below:

☒ For approval ☒ For your use ☐ As requested ☐ Return **comments** for distribution

REMARKS:

TRANSMITTED ELECTRONICALLY

cc: *D.Rubin, M.Lombardi, T.O'Connell, F.Perez, C.Kraemer, S.Shatz, G.Houle, V.Palen, S.Kelley, C.Riccardi*

If enclosures are not as noted, please notify us at once.

SIGNED S Kelley

Sara Kelley, Project Engineer

Contractor Quality Assurance / Quality Control Plan
For
Kent Avenue Remediation Project
Former Kent Ave Generating Station
500 Kent Ave
Brooklyn, New York

Purchase Order No.4167052

Prepared For:

conEdison
a conEdison, inc. company

Consolidated Edison Company of New York, Inc.
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New York, New York 10003

Prepared By

MAXYMILLIAN Technologies

1801 East Street
Pittsfield, MA 01201
MT Project No: 13007

September 2013

MAXYMILLIAN TECHNOLOGIES, INC.
Reviewed For Submission

Spec Sect # 01110 & 01400 Trans # 019A
Date: 09/09/13 By: SJK

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LIST OF ACRONYMS

AAS	Asbestos Abatement Supervisor
AASHTO	American Association of State Highway and Transportation Officials
API	American Petroleum Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society of Testing and Materials
AWWA	American Water Works Association
CBI	CB&I (formerly Shaw Environmental and Infrastructure)
CIH	Certified Industrial Hygienist
CM	Construction Manager
Con Edison	Consolidated Edison Company of New York, Inc.
CQC	Contractor Quality Control
CQCE	Contractor Quality Control Engineer
CQCO	Contractor Quality Control Officer
CQAQCP	Contractor Quality Assurance / Quality Control Plan
DFW	Definable Features of Work
DR	Daily Report
FCR	Field Change Report
HASP	Site Health and Safety Plan by Maxymillian
MT	Maxymillian Technologies, Inc.
NCR	Nonconformance Report
PE	Professional Engineer
PJE	Project Engineer
QA/QC	Quality Assurance/Quality Control
SS	Site Superintendent
SSHO	Site Safety and Health Officer
UST	Underground Storage Tank

1.0 INTRODUCTION

Consolidated Edison Company of New York, Inc. (Con Edison) has contracted Maxymillian Technologies, Inc. (MT) to perform remedial construction activities at the Former Kent Ave Generating Station site located at 500 Kent Ave, Brooklyn, New York. This Contractor Quality Assurance / Quality Control Plan (CQAQCP) was prepared in accordance with Purchase Order No. 4167052, and specification entitled *Bid Specification for Interim Remedial Measure Former Kent Avenue Generating Station,* dated December 14, 2012. This document defines MT's Contractor Quality Assurance / Quality Control Plan (CQAQCP) for this project.

Each MT staff member and MT team member understands that the quality of the decision-making, planning, work process, and actual project implementation that each of us accomplishes every day is the major factor in creating the success of our client relationships, the success of each staff member, and the long-term success of our company.

MT achieves this quality by focusing on three major elements:

- The client's requirements and expectations;
- The attitude, qualifications, experience, and training of our staff;
- The process, procedures, and protocols used to accomplish the project work efficiently, effectively, and with the quality results we require.

For this project, MT will demonstrate its commitment and focus on these elements by:

- Continuously assessing the changing needs of our client and proactively requesting feedback on our performance;
- Assuring that all staff assigned to the project are qualified, experienced, trained, and have an attitude valuing high-quality and responsive service to our client;
- Providing adequate equipment and resources that will always be available to meet the client's needs;
- Auditing and assessing the performance of MT and our team to identify aspects of our work that we can improve and to continuously be in the process of creating the "next edition" of these improved services.

MT's commitment to strict adherence to this CQAQCP is affirmed throughout the company including executive officers, management, field staff, subcontractors, and vendors. MT will:

- Clearly define roles, responsibilities, and authorities of all project staff;
- Compile accurate and complete CQAQCP documents and records;

- Empower CQAQCP representatives to fully implement this Plan throughout the contract duration;
- Proactively detect, document, and resolve quality discrepancies;
- Establish and maintain continuous, professional, and effective communications with Con Edison.

MT will provide and maintain a documented CQAQCP system that will ensure that the end product (equipment, materials, and/or services) provided to Con Edison conforms to contract requirements. The CQAQCP is a "living" document and will be modified, as necessary, with the required approvals throughout the life of the project.

2.0 REFERENCES

The publications/documents listed below are incorporated by reference into this CQAQCP:

- Bid Specification for the Interim Remedial Measure Former Kent Avenue Generating Station, Brooklyn, New York dated December 14, 2012;
- Health & Safety Plan (HASP) for Kent Avenue Remediation Project Former Kent Ave Generating Station, dated August 2013.

3.0 CONTRACTOR QA/QC PLAN PURPOSE

The purpose of the CQAQCP is to establish an effective QA/QC system for all construction and engineering activities, both on- and off-site, to be performed as detailed in the Specification entitled *Bid Specification for Interim Remedial Measure Former Kent Avenue Generating Station*, dated December 14, 2012. The implementation of this system will ensure, with a reasonable degree of certainty, that completed construction and/or engineering activities meet and/or exceed all design criteria, plans, and specifications.

3.1 Contractor Quality Assurance/Quality Control Plan Content

The CQAQCP describes the procedures and organization required to ensure that project quality objectives are met. This plan addresses both on- and off-site construction operations including work by subcontractors, suppliers, and purchasing agents. In summary, the CQAQCP includes the following components:

- A description of the Contractor Quality Control (CQC) organization including: (1) a chart showing lines of authority for this project, (2) acknowledgement that the CQC staff will implement the three-phase control system, (3) duties of the Contractor Quality Control Engineer (CQCE) assigned to monitor the CQAQCP implementation for the project;

- A list of the names, qualifications, duties, responsibilities, and authorities of the personnel assigned CQC functions;
- Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, suppliers, purchasing agents, designers of records, consultants, and architect engineers;
- Control, verification, and acceptance of testing procedures for each specific test to include the test name, feature of work to be tested, test frequency, and person responsible for each test;
- Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation;
- Procedures for tracking construction design and construction deficiencies from identification through acceptable corrective action. These procedures will establish verification that identified deficiencies have been corrected;
- Reporting procedures including proposed reporting formats;
- A list of the definable features of work (DFW).

4.0 COORDINATION

The Quality Control Engineer (QCE) will effectively communicate the content and intentions of the contract documents to all members of the project team to ensure consistency of project understanding and planned implementation.

Coordination will be based upon the concept of the three-phased CQC process (preparatory, initial, and follow-up, as discussed in Section 9.0).

MT will provide notification to Con Edison personnel in order to coordinate meetings, inspections, testing, and start-up activities at the job site. MT will provide required engineering and other support services, throughout the construction process, along with accurate test results and field reports.

4.1 Weekly Progress Meeting

Weekly progress meetings will be held to review site activities, to detail accomplishments, and to address any questions that arise. The weekly progress meeting records will be available for review at the MT field office.

4.2 Problem Resolution Meeting

Problem resolution meetings will be held when special conditions warrant additional discussion. These meetings will be attended by, at a minimum, the CQCE, SS, related subcontractor(s), and Con Edison or their designated representative. The meeting purpose will be to define and discuss a problem, review solutions, and select an appropriate solution. The problem resolution meetings will be documented and the meeting records will be transmitted to all parties involved.

5.0 QUALITY CONTROL ORGANIZATION

MT, as the prime contractor, is responsible for the development, implementation, and management of this CQAQCP. All subcontractor personnel will adhere to the requirements of this plan through their respective quality organizations.

The following list includes personnel involved in Quality Assurance / Quality Control (QA/QC) for this project:

- Glenn Houle, Construction Manager (CM)
- James Smith, Site Supervisor (SS)
- Douglas Mason, Contractor Quality Control Engineer (CQCE)
- Mary Albani, MS, CET Site Safety and Health Officer (SSHO)
- Joseph Sbarra, CIH
- Sara Kelley, Project Engineer (PJE)
- Asbestos Abatement Supervisor (AAS) Delta Environmental, Inc.

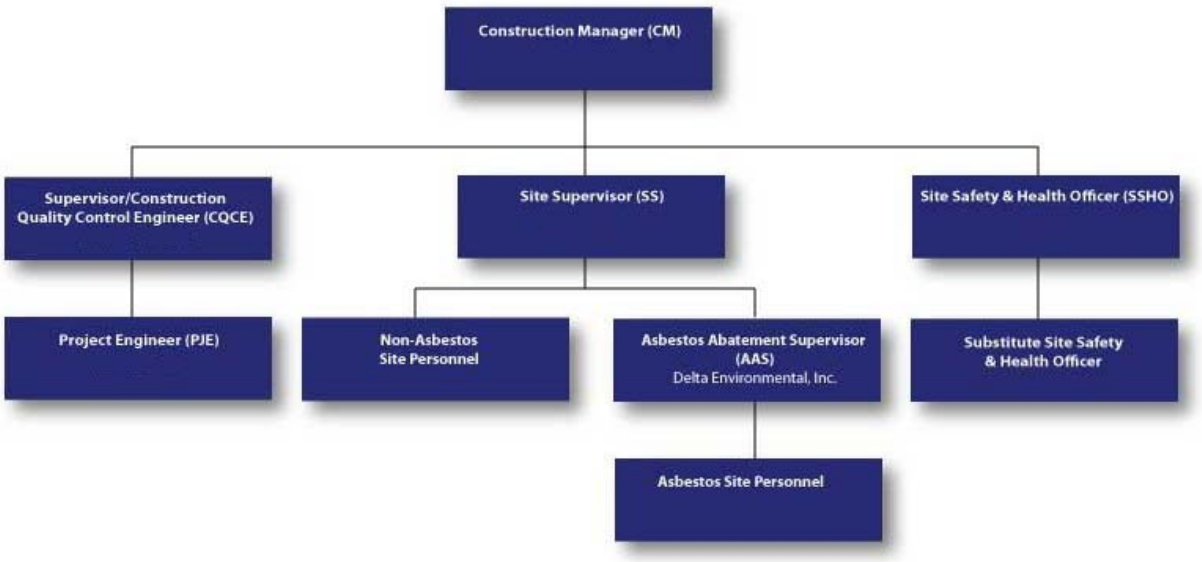
5.1 Quality Control Structure

Figure 1-1 shows the organizational structure and the reporting relationship of personnel involved in completing the work defined in the specification.

The Construction Manager (CM) delegates the implementation of the CQAQCP to the Contractor Quality Control Engineer (CQCE). The CM oversees the development of site-specific project plans and will delegate implementation of the project plans to the SS, who coordinates with the CQCE, SSHO, Subcontractors, and site personnel. The CM will delegate implementation of the Site Specific Health & Safety Plan to the SSHO. This structure ensures that quality and safety issues within the project are not compromised by project cost/schedule considerations, and are allowed to immediately rise to a higher program and corporate level of responsibility in the organization for resolution, as necessary.

The CQCE is the focal point of CQC efforts on this project. The CQCE will communicate the project CQC system requirements to the SS, and the SSHO. The CQCE and SS will communicate with MT staff and to each subcontractor and vendor to ensure the CQAQCP is implemented properly and that consistent quality results are achieved.

Figure 1: CQC Team Organizational Chart



5.2 Responsibility and Authority

The MT CQC organization clearly identifies authority and responsibility for all aspects of Contractor Quality Control. Each project team member will receive a description of his/her responsibility on the project along with the chain of command. This information will be collectively communicated to the team via project kickoff and pre-construction meetings so that each member understands the project CQC system.

Each project team member with CQC responsibilities has a job description specific to this project that includes the CQC duties, responsibilities, authority, and lines of authority under this project. The following are the job descriptions for each CQC position.

Construction Manager (CM)

The CM has the overall responsibility for all technical, contractual, safety, and administrative matters for MT under this contract. He will ensure a high degree of client responsiveness is maintained. Additionally, he will be responsible for reviewing and approving project plans, overseeing staff selection, monitoring contract and task funds and schedules, and implementing CQC processes. The CM will delegate day-to-day management to the SS, and safety management to the SSHO.

Construction Quality Control Engineer (CQCE)

MT places ultimate accountability for construction compliance with the CQCE. The CQCE is ultimately responsible for ensuring compliance with contract requirements, project plans, and other project documents. The CQCE coordinates closely with the SS, the SSHO, the PJE, the AAS and the Con Edison representatives, as appropriate, to ensure each party's needs are being met and to identify possible problems early on. The CQCE will be responsible for the enforcement of the CQAQCP in the field. The CQCE specific QC and safety duties and responsibilities include:

- Coordinate implementation of the CQAQCP;
- Coordinate with SSHO to communicate and implement the HASP;
- Prepare CQC documentation;
- Review safety documentation prepared by the SSHO;
- Providing for continuous surveillance of project activities to ensure workmanship, methods, materials, and equipment conform to submittals and contract requirements and that work conforms to safety requirements;
- Participating in the definition, isolation, and resolution of problems causing work not in conformance with project requirements with MT's appropriate employees, subcontractors, vendors, and engineers, and with Con Edison's field representatives;
- Conducting documented orientation sessions with project staff including subcontractors and vendors to ensure maximum integration into the project quality requirements;
- Certifying tests and qualifications, and providing other certifications required by engineering, or Con Edison's representatives;
- Documenting activities, incidents, accidents, inspections, testing, and pertinent discussions with project staff, subcontractors, suppliers, government representatives, and visitors;
- Exercising "stop work" authority when required to prevent or stop performance inconsistent with the Specification and CQAQCP. Initiating appropriate action to prevent, stop, or correct the occurrence of quality deficiencies. Documenting the occurrence of deficiencies and corrective actions as they occur;
- Coordinating with MT personnel, the SS, the SSHO, and the subcontractors to ensure approved methods and materials are being used, safety procedures are being followed and documented, and quality goals are being met.

Project Engineer (PJE)

The Project Engineer is responsible for the review and certification of all submittals before transmittal to either Con Edison or other required approval authorities. The PJE's specific QC responsibilities include:

- Review submittals pre-construction and post-construction for conformance to specifications, completeness, and accuracy;
- Approve or reject the submittal, as appropriate, and indicate his or her action by his or her review stamp with signature and date before sending back to originator for revision or forwarding to Con Edison for approval;
- Maintain a Submittal Register as part of the CQC process;
- Maintain a standard records management and document control system.

Site Supervisor (SS)

The Site Supervisor (SS) will deploy resources in the most effective way to accomplish the required work and will conduct daily management and administration of fieldwork in accordance with project requirements. The SS reports directly to the CM and will provide the CM with daily progress reports. The SS will be accessible at all times while the field activities are in progress.

The SS's specific CQC duties and responsibilities include:

- Overall responsibility for all field activities and implementing all MT quality and safety policies and procedures;
- Supervising and monitoring work execution by all subcontractors and MT personnel to ensure contract items and conditions are fulfilled in accordance with work plans, specifications, and standard operating practices, where pertinent;
- Coordinating closely with the CM, CQCE, and safety personnel to ensure project operations comply with CQAQCP and HASP provisions;
- Exercising "stop work" authority when required to prevent performances inconsistent with planning documents and project requirements;
- Completing a daily report covering project activities and personnel for that day. Daily reports are submitted the next day to the CM. Daily reports shall also be provided to Con Edison and CBI the next day. All reports will be compiled and submitted with the final closeout report;
- Documenting all abnormalities (e.g., unanticipated site conditions or obstructions) and reporting them to the CM;

- Ensuring site personnel assigned to the project are aware of company and site policies and procedures and abide by them;

- Providing a safe working environment through a concerted effort with the CM and the SSHO.

Site Safety and Health Officer (SSHO)

The Site Safety and Health Officer (SSHO), or designated alternate, will be responsible for ensuring all work is conducted in compliance with the HASP, including proper use of personal protective equipment (PPE). The SSHO reports directly to the CM. The CM will empower the SSHO to enforce all safety and health issues in the field, including the authority to stop work for safety violations.

The SSHO will perform site-specific training and briefing sessions for employees before the start of field activities at the site and a briefing session each day before starting work. The SSHO will ensure the availability, proper use, and maintenance of specified personal protective equipment, decontamination, and other safety and health equipment. The SSHO will maintain a high level of safety awareness among team members and communicate pertinent matters to them promptly, including stopping work activities if unacceptable health or safety conditions exist, and taking necessary action to re-establish and maintain safe working conditions.

Asbestos Abatement Supervisor (AAS)

MT has subcontracted with Delta Environmental, Inc. to provide a NYCDEP/NYSDOL certified Asbestos Abatement Supervisor (AAS) for supervisory oversight of the asbestos abatement activities. The AAS is responsible for supervising all activities within the exclusion zone (asbestos regulated area) and ensuring all abatement activities conform to the asbestos regulations and approved variances for this project. The AAS reports directly to the SS. The AAS, or his qualified alternate, specific responsibilities include:

- Establishing regulated areas and assuring that access to and from these areas is limited to authorized personnel;

- Assuring the adequacy of worker exposure monitoring;

- Assuring that all workers exposed to asbestos and other airborne chemical constituents of concern wear appropriate personal protective equipment and are trained in the use and limitations of appropriate methods of exposure control;

- Assuring that proper hygiene facilities are provided and that workers are trained NYCDEP/NYSDOL certified Asbestos Handlers to use these facilities;

- Assuring that feasible engineering controls, as established in the Asbestos Abatement Variance, are implemented maintained in proper operating condition and functioning properly;

- Assuring that all required medical surveillance, including pre- and post-job physical examinations, is performed and documented as required;
- Assuring that all asbestos training and licensing requirements are met;
- Assuring that all necessary asbestos regulations in are adhered to;
- Assuring that asbestos notification requirements are met.

Site Personnel and Subcontractors

All site personnel and subcontractors will be required to adhere to the procedures set forth in this CQAQCP. The SS will be responsible for overall management and coordination of MT's site personnel and subcontractors, and ensuring they perform all aspects of the work in accordance with the Project Plans, the HASP, and this CQAQCP. The CQCE will be responsible for ensuring the site personnel and subcontractors perform all aspects of the work in accordance with this CQAQCP. The SSHO will be responsible for ensuring the site personnel and subcontractors perform all aspects of the work in compliance with the HASP.

The SS, through a concerted effort with the SSHO and CQCE, will ensure that site personnel assigned to the project are aware of company and site policies and procedures and abide by them to provide a safe working environment.

5.3 CQC Personnel Qualifications and Training

The CQCE will personally control all CQAQCP activities for the project. When the SS and SSHO perform certain CQC-related functions, they will be specifically trained and closely monitored by the CQCE as part of the three-phase CQC inspection process to assure that all procedures and documentation are properly completed. In addition, all involved staff will be trained for each DFW, to understand the required work procedures, the desired level of performance and workmanship, and the timing and means of the inspection points. This task-specific training will be accomplished within the preliminary and initial phases of the CQC inspection process for each DFW.

6.0 SUBMITTALS

Preparation of submittals is the responsibility of the Construction Manager (CM) and the Project Engineer (PJE). Submittals from MT's subcontractors and vendors will be reviewed for technical content and accepted as a part of this submittal preparation procedure.

The PJE is responsible for the review and certification of all submittals before transmittal to either Con Edison or other required approval authorities. The PJE will review submittals for conformance to specifications, completeness, and accuracy. Submittals requiring modifications or changes will be returned to the originator, subcontractor, or vendor for correction and re-submission to the PJE. The PJE will approve or reject the submittal, as appropriate, and will indicate his or her action by his or her review stamp with signature and date before sending back to originator for revision or forwarding to Con Edison for approval.

6.1 Submittal Procedure

All submittals will be submitted in hardcopy via mail or in electronic files via electronic mail, unless otherwise directed. Manufacturers' descriptive data that have more than one model, size, or type or that show optional equipment will be marked to show the model, size, or type, and all optional equipment proposed for approval. Submittals on component items forming a system or that are interrelated will be submitted at one time, as a single submittal, to demonstrate that the items have been properly coordinated and will function as a unit.

Submittals requiring Con Edison approval will be identified as having been reviewed, stamped and dated by Con Edison and returned to the PJE. The PJE will indicate the action by Con Edison on the Submittal Register. Submittals approved by Con Edison will be forwarded to Procurement Department.

6.2 Re-submittal Procedure

Con Edison may require MT to re-submit an item found not to comply with the project requirements. A subsequent submittal (re-submittal) due to the rejection of a previous submittal will be processed in the same manner as the original submittal.

6.3 Deviations

For submittals that include proposed deviations to the Specification requested by MT, the variation will be noted on the transmittal form. MT will set forth in writing the reason for any deviations and annotate such deviations on the submittal.

6.4 Control of Submittals

MT will carefully control its procurement operations so that materials and equipment are not ordered until the SS and, where required, Con Edison, has approved the submittal covering the subject material or equipment. MT will plan its submittal preparation to allow review and approval of ordered materials and equipment in a timely manner so as not to affect project schedule.

6.5 Submittal Register

The PJE will maintain a Submittal Register as part of the CQC process. The register will provide a listing of all required submittals, the current status of each submittal, and any pending or planned action required by MT or Con Edison. The submittal register will be updated weekly once mobilization begins.

7.0 QUALITY MANAGEMENT PROCEDURES

The following section outlines the use of operational procedures to ensure CQC. This section also covers actual procedure for selection, approval, monitoring, change control, and application of remedial measures to construction activities outlined in the project Specification.

The MT standard CQC forms are presented in Appendix B. They include the Daily (DR), the Field Change Report (FCR), and the Nonconformance Report (NCR). The CQCE completes these forms to document the performance of quality management procedures.

7.1 Procedure Selection

The selection of CQC procedures and level of coordination is in accordance with the project specification requirements for each DFW and is further detailed in Table 1. Table 1 is intended to be used in the field by MT QC staff.

TABLE 1
DEFINABLE FEATURES OF WORK

Erosion and Sediment Controls
Underground Storage Tank Removal
Excavation and Disposal of North Remediation Area Soil & Debris
Shoring of Division Avenue (if needed)
Removal and Processing of Remnant Structures
Backfill of North Remediation Area
Excavation and Disposal of South Remediation Area Soil & Debris
Backfill of South Remediation Area
Sidewalk Vault Closure (if needed)

The CQCE is on staff to ensure compliance with specifications and compliance with local permits and requirements that may be necessary for each definable feature of work.

7.2 Approval

The Con Edison Representative, MT CM, SS, and CQCE will approve all detailed CQC procedures incorporated into this CQAQCP. The same parties will approve subsequent changes following initiation of work.

7.3 Monitoring and Observations

The CQC monitoring, observation, and surveillance system will be coordinated with key construction steps under each DFW. This system will include observation along with documentation of all tests performed and documentation of all inspections under each of the three-phases of the CQC system.

The CQCE, SS, and PJE closely monitor the actual field testing, verifying proper procedure technique, sample handling, and chain of custody, if required. The CQCE reports the results of testing, compares the results with the project requirements and, if acceptable, indicates the work is acceptable and provides a timely authorization to proceed with subsequent work. If the CQCE determines the test results of work is otherwise not acceptable, he immediately stops the work and initiates a conformance action.

7.4 Change and Control Procedures

A formal process identifies, documents, and tracks the status of procedural and condition changes in project design and remedial work. Changes required to an "Approved for

Construction" drawing or specification, or field conditions that differ from those presented in contract documents shall be documented by a Field Change Report (FCR).

The FCR is prepared by the SS and the CQCE, as required, and routed to the PJE for review. The CM will discuss potential changes with the appropriate Con Edison Representative and MT's technical staff. The PJE uses the document tracking system to assign an FCR number, retains a copy for the FCR log and contract files, and then forwards a copy of the FCR to the CM, SS, and CQCE. The CQCE monitors the documentation and provides support.

The FCR is reviewed by the CQCE, PJE, and CM. Upon resolution, each signs the FCR and forwards the FCR to the Con Edison Representative for review and processing.

8.0 CONTROL PHASES

CQC is the means by which MT ensures that construction, including that of subcontractors and suppliers, complies with the requirements of the contract. Three phases of control shall be conducted by the CQCE for each DFW of the construction work. A DFW is a task that is separate and distinct from all other tasks and has a specific set of control requirements (e.g., erosion and sediment controls, UST removal). Each control phase provides an opportunity to prevent deficiencies that result in nonconformance. Implementation of the three-phased CQC process is the responsibility of the project team, as discussed in Section 6.0, Quality Control Organization. The three phases are as follows:

8.1 Preparatory Phase

The preparatory meeting will be performed prior to beginning work on each DFW, after all required plans/documents/materials are approved, and after copies are at the work site. .

Specifically, this phase will include:

- Review of applicable specifications, reference codes and standards;
- Review of the project shop drawings;
- Review to ensure that all materials and/or equipment have been tested, submitted, and approved;
- Review of provisions that have been made to provide required control inspection and testing;
- Examine the work area to ensure that all required preliminary work has been completed in compliance with the contract;

- Physically examine all required materials, equipment and sample work to ensure that they are available, conform to approved shop drawings or submitted data, and are properly stored;

- Review of the appropriate activity hazard analysis to ensure safety requirements are met;

- Discuss procedures for controlling quality of the work including detection of repetitive deficiencies. Establish construction tolerances and workmanship standards for this DFW;

- Check to ensure the portion of the plan for the work to be performed has been accepted by Con Edison or their designee;

- Discuss the initial control phase;

- Notify Con Edison 48 hours in advance of beginning the preparatory control phase. This phase includes a meeting conducted by the CQCE, SS, SSHO and attended by other CQC personnel, as required, and responsible for the DFW. The results of the preparatory phase actions will be documented by separate minutes prepared by the CQCE and attached to the Daily Report.

Because the CQCE position requires both off-site, and on-site work requirements, the CQCE may administer this meeting by conference call. Con Edison or its representatives may also participate in this meeting by conference call.

8.2 Initial Phase

This phase will be accomplished at the start of a DFW. The following will be accomplished during this phase:

- Check the work to ensure it is in full compliance with the project requirements. Review minutes of the preparatory meeting;

- Verify adequacy of controls to ensure full project compliance. Verify required control inspection and testing are being performed;

- Establish level of workmanship and verify it meets the desired acceptable workmanship standards. Compare with required sample panels, as appropriate;

- Resolve all differences;

- Check safety to include compliance with an upgrading, if necessary, of the HASP and activity hazard analysis. Review the activity hazard analysis with each worker;

- Notify Con Edison or its representative in advance of the beginning the initial control phase. The results of the initial phase actions will be documented by separate minutes prepared by the CQCE and attached to the DR;

- The initial phase will be repeated for each new crew to work on-site, or any time acceptable specified quality standards are not being met.

8.3 Follow-up Phase

Follow-up inspection and testing is geared toward a level of effort to verify the continuation of project compliance and standards of workmanship established during the previous two phases. If a thorough job has been done during the preparatory and initial phases, the follow-up phase can be efficient and productive. Daily checks will be made for each DFW. Final follow-up checks will be conducted and all deficiencies will be corrected before the start of additional DFWs that may be affected by the deficient work.

9.0 TESTING/INSPECTION/MONITORING

MT and its subcontractors will perform specified tests to verify that control measures are adequate to provide a product which conforms to contract requirements. Upon request, and if applicable, the contractor shall furnish to the Client duplicate samples of test specimens for possible testing by Con Edison. Testing includes operations and/or acceptance tests when specified. MT will procure the services of an approved testing laboratory. MT will perform the following activities and record and provide the following data:

- Verify that testing procedure complies with contract requirements;

- Verify that facilities and testing equipment are available and comply with testing standards;

- Check test instrument calibration data against certified standards;

- Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared;

- All results of tests taken, including both passing and failing results, shall be recorded on the CQC reports for the date taken. Specification paragraph reference, location where test were taken, and the sequential control number identifying the test will be given. A copy of tests performed by an off-site or commercial test facility shall be provided directly to Con Edison.

All testing procedures will be based on the applicable accepted industry methods, e.g., American Society for Testing Materials (ASTM), American Society of Mechanical Engineers (ASME), American Association of State Highway and Transportation Officials (AASHTO), American Water Works Association (AWWA), and American Petroleum Institute (API), as specified with

the accuracy of a particular test, based on the amount of care exercised when it is performed. The PJE will verify that reporting forms for the various tests have been prepared and that the forms include all necessary information as required by the referenced standards. Any deviations or omissions will require an explanation by the company performing the test. Copies of all test-reporting forms will be kept in the job site files as control documents.

10.0 COMPLETION INSPECTION

10.1 Punch List

Near the completion of the work, or when indicated in the specifications, the CQCE and SS shall conduct an inspection of the work. A punch list of items that do not conform to the approved drawings and specifications shall be prepared and included in the CQC documentation, as required by section 12.0 Documentation. The list of deficiencies shall include the estimated date by which the deficiencies will be corrected. The CQCE or staff will make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the CQCE will notify Con Edison that the facility is ready for the Pre-Final Inspection by Con Edison.

10.2 Final Acceptance Inspection

The SS will notify the Con Edison representative when all deficiencies of the punch list have been corrected. Based upon this notice, MT will formally schedule the final acceptance inspection. Con Edison will be notified of the scheduled date at least 7 days prior to the final acceptance inspection, and will include assurance that all specific items previously identified are acceptable, along with all remaining work under the contract. The CQCE, SS, and the Con Edison representative will be in attendance at the final acceptance inspection.

11.0 DOCUMENTATION

CQC records are the primary means of documenting and reporting construction quality and conformance to contract documents. This section outlines the general procedures to be followed for the identification, use, handling, filing, storage, and disposition of CQC records.

11.1 Responsibility

CQC records will be prepared by the CQCE, SS, or PJE. The PJE will maintain CQC records including maintaining a record of all tests and inspections performed to provide factual evidence of compliance with project requirements and to document all CQC activities. These records include all work performed by subcontractors and suppliers.

Records will be consistent with applicable codes, specifications, and contracts, and will be adequate for use in management of the project. Inspection and test records will identify the

inspector or data recorders, the type of observation, the results, and the acceptability or action taken in connection with any deficiency.

11.2 Requirements

Individual inspections, tests, and/or observations will be scheduled at predetermined points in the project. The proper documentation to record these activities will be performed by the CQCE, and compiled by the PJE.

11.3 CQC Reports and Records

The CQCE, SS, or PJE will complete and maintain CQC records to provide factual evidence of compliance with project requirements and to document all CQC activities including maintaining a record of all tests and inspections performed. MT will save these records as part of its data management system. These records include all work performed by subcontractors and suppliers.

Daily Report (DR)

A DR is completed for each day of activity and includes:

- Description and location of the work performed today;
- Weather conditions;
- Identification of each subcontractor performing work on the project that day, identification of the work performed, references to specific project requirements, and identification of the inspections performed;
- Test and control activities performed, including results;
- Field change requests;
- Documentation of the monitoring of receipt, storage, and use of materials and equipment at the site (including quantities);
- Job safety evaluations stating what was checked, results, and instructions or corrective actions;
- Remarks (e.g., instructions given or received, conflicts identified between plans, specifications, and instructions, conflict resolution, etc.);
- Attachments, including site meeting minutes, inspection checklists, testing procedures and results, four photographs representing the activities that occurred on site that day, etc.

Field Change Report (FCR)

An FCR is completed when changes in the project work or site conditions impacting previously approved plans or the specification are identified. The proposed or actual changes documented in the FCR will be reviewed by the responsible technical staff, SS, and CQCE. Upon resolution, the PJE forwards the FCR to the Con Edison representative for review, approval, and processing. Information provided on the FCR includes:

- A description of the needed change;
- The reason the change is necessary, including consequences of failing to implement the change;
- Cost of materials, labor, and equipment to implement the change, and the total cost with overhead, fee, etc.;
- Identification of other work that will be affected by the change.

Nonconformance Report (NCR)

An NCR is completed when work failing to meet project requirements is identified. Information provided on the NCR includes areas for:

- Description of the nonconformance, including who identified it and the date it was identified;
- Description of the proposed corrective action, including who will perform the corrective action and the date it will be completed;
- Description of the completed corrective action, including who performed the corrective action, the date of completion, who verified correction of the noncompliance, and the date of the verification.

11.4 Forms and Records

In addition to the CQC reports described in the previous section, the CQCE, SS, or another designated CQC team member will witness all required field testing and sign the appropriate forms for the work to be accepted. All forms will be filled out completely and be signed and dated before submittal for review and approval. Subcontractors will fill out the appropriate forms and submit them upon completion of each task, rather than hold them until the end of the project.

Inspection and testing forms will identify the equipment, materials, or installations involved. Installation and maintenance checklists will be marked where applicable. Locations, orientations, elevations, test parameters, test results, and other comments will be included on the forms, as appropriate. Forms are to be dated and signed by the person performing the observation, inspection, or test and by the CQCE or SS. They will be submitted to the CM or

PJE for approval. Critical items such as impacts to cost and schedule, in addition to deficiencies and corrective actions will be clearly and concisely stated.

The PJE will also maintain appropriate CQC records, including:

- Copies of approved submittals;
- Personnel training records, qualifications, and certifications;
- Design drawings with "as-built" changes marked on them;
- Engineering/Manufacturer specifications.

12.0 CONTROL OF DOCUMENTATION

A standard records management and document control system will be used. The PJE is responsible for implementing the system for the entire project and the CQCE is responsible for carrying these practices to the field. Elements of the records management and document control system include:

- Controlled access;
- Index system - Submittal Register;
- Logging and issuing of document numbers;
- Method to determine status of documents in progress;
- Standardized procedures/forms;
- Proper storage of documents;
- Retrieval;
- Archiving;
- Retirement.

Project records will be maintained in a safe and retrievable manner until project closeout. Documents and records will be provided to the client in physical and electronic formats, in accordance with contract and task requirements. Following project closeout, all project documents and records will be archived.

13.0 NONCONFORMANCE AND CORRECTIVE ACTION

It is important for every identified nonconforming material, assembly, or construction method to be corrected through systematic actions. Any time a condition exists not in compliance with drawings, specifications, codes, workmanship standards, or Con Edison requirements, the nonconformity must be eliminated. The CQCE will take the following actions:

- Notify the SS and subcontractor, if appropriate, to initiate prompt corrective action;
- Document the discrepancies that cannot be corrected immediately by verbal instructions on a Follow-up Phase Checklist Form. A detailed description of the item or condition failing to meet drawing or specification requirements will be given with an explanation of conditions at the time of failure and its probable cause;
- Coordinate with the SS, and subcontractor, if appropriate, to evaluate discrepancies, determine and implement the appropriate corrective action, and identify corrective measures to prevent recurrence of the problem;
- Repeat the inspection after the corrective action is complete;
- Note on the Final Acceptance Report any retesting required and performed, nondestructive examination required and performed, or changes in identification of any replacement part used in correcting the problem.

A distribution list for discrepancy reports will be determined at the initial project-planning meeting. At a minimum, distribution will include the CM, PJE, and CQCE.

14.0 DEFICIENCY TRACKING SYSTEM

The MT CQC process will identify deficiencies throughout the project. These deficiencies will be tracked by the CQCE and PJE.

15.0 APPROVALS

By their signature, the following individuals certify their review and approval of this Contractor Quality Assurance / Quality Control Plan for the Interim Remedial Measure Former Kent Ave Generating Station Project.

Signature	**Date**
	09/09/12

Mr. Glenn Houle
Construction Manager

	09/09/12

Mr. James Smith
Site Supervisor

	09/09/12

Ms. Sara Kelley
Project Engineer

APPENDIX A

CONTRACTOR QA/QC SITE FORMS

- **Preparatory Phase Checklist**
- **Initial/Follow-Up Phase Checklist**
- **Daily Report (DR)**
- **Field Change Report (FCR)**
- **Nonconformance Report (NCR)**

Kent Avenue Remediation Project
500 Kent Avenue
Brooklyn, NY
MT Job #13007

PREPARATORY PHASE CHECKLIST

Contract: [Purchase Order]: 4167052
Spec. Section & Paragraph:
Drawing Sheet Numbers:
Date Preparatory Held:
Definable Feature of Work:
Major Definable Feature:

Personnel Present (sign-in sheet attached)

NAME	POSITION	COMPANY

Has each spec. paragraph, drawing, and shop drawing detail been studied? ☐ Yes ☐ No ☐ N/A

Transmittals Involved:

NUMBER AND ITEM	STATUS

Have all items involved been approved? ☐ Yes ☐ No ☐ N/A
Are all materials on-hand? ☐ Yes ☐ No ☐ N/A

Are the materials on the job-site to be incorporated the same as those approved?
☐ Yes ☐ No ☐ N/A

Have all materials been checked for contract compliance against approved shop drawings?
☐ Yes ☐ No ☐ N/A

Equipment to be used in Executing the Work:

-
-
-

Items not on-hand or not in compliance with transmittals:

-
-
-

Tests required in accordance with contract requirements:

-
-
-

Accident Prevention Planning - Hazard Control Measures:

-
-
-

Applicable Outlines:

-
-
-

Operational Equipment Checklist

-
-
-

Have procedures for accomplishing work been reviewed with appropriate people? ☐ Yes ☐ No ☐ N/A

Scope of Work/Method of Construction:

-
-
-

Safety Issues:

-
-
-

Spill Prevention Issues:

-
-
-

Has all preliminary work been accomplished in accord with contract requirements and is this segment of work ready to start? ☐ Yes ☐ No

Explain any problems:

-
-
-

Remarks:

-
-
-

Contractor's Comments:

-
-
-

Quality Control Representative, MT	Quality Control Representative, Con Ed

Kent Avenue Remediation Project
500 Kent Avenue
Brooklyn, NY
MT Job # 13007

PREPARATORY PHASE CHECKLIST

Contract: [Purchase Order]: 4167052
Spec. Section & Paragraph:
Drawing Sheet Numbers:
Date Preparatory Held:
Definable Feature of Work:
Major Definable Feature:

SIGN-IN SHEET

NAME	POSITION	COMPANY	CONTACT

Kent Avenue Remediation Project
500 Kent Avenue
Brooklyn, NY
MY Job # 13007

INITIAL/FOLLOW-UP PHASE CHECKLIST

Contract: [Purchase Order]: **Date Inspection Held:**
Spec. Section & Paragraph: **Definable Feature of Work:**
Drawing Sheet Numbers: **Major Definable Feature:**
Inspection Type: ☐ Initial Phase ☐ Follow-Up Phase

Description and Location of Work Inspected:

-
-
-

A. Personnel Present

NAME	POSITION	COMPANY

B. Materials being used are in Strict Compliance with the Contract Plans and Specifications? ☐ Yes ☐ No
If not, explain:

-
-
-

C. Procedures And/Or Work Methods Witnessed Are In Strict Compliance With The Requirements of the Contract Specifications: ☐ Yes ☐ No
If not, explain:

-
-
-

D. Workmanship Is Acceptable. ☐ **Yes** ☐ **No**
State Areas Where Improvement Is Needed:

-
-
-

E. Safety Violations and Corrective Actions Taken:

-

F. Remarks:

-
-
-

Quality Control Representative, MT	Quality Control Representative, Con Ed

MAXYMILLIAN Technologies

Daily Report

Date

Project Name

Project Number

Report By

Temperature

Weather

Photo Caption

Photo Caption

Photo Caption

Photo Caption

Daily Report

Work Performed By Maxymillian Technologies, Inc. (MT)

Work Performed By Subcontractors

Material/Equipment Delivered to Site

Safety Remarks

Construction Activities Remarks

MAXYMILLIAN Technologies

Daily Report

#	Personnel	#	Equipment	#	Rental Equipment

Regular Shift		Overtime	
TOTAL SITE PERSONNEL		TOTAL SITE PERSONNEL	
SHIFT (HOURS)		SHIFT (HOURS)	

FIELD CHANGE REPORT (FCR)

Date:
Project Name: Kent Avenue Remediation Project
Project Number: 13007
Location: 500 Kent Avenue, Brooklyn, NY
Revision Number:

Reference Data
Spec Section Number: **Page Number:** **Paragraph Number:**
Drawing Number: **Dated:**
Sketch Number:
Details:

Description
Description of Change Needed:

Proposed Solution:

Is this a general problem or isolated case:
Affected Contractors:

Cost and Schedule Impact:

Quality Control Representative, MT

Quality Control Representative, Con Ed

Kent Avenue Remediation Project
500 Kent Avenue
Brooklyn, NY
MT Job #13007

NONCONFORMANCE REPORT (NCR)

Identification

Originator	Organization	Date	Report Number

Nonconformance Description (Describe the nonconformance; ensure the applicable requirements, planned activities, procedures, specifications, drawing, standards, serial numbers, etc. are noted. Indicate who documented the nonconformance.)

Risk Level

Steps to Prevent Inadvertent Use of the Item or Process

Corrective/Preventive Action and Disposition

Planned Corrective/Preventive Action (Describe for each cause what action(s) will be taken with the item or process, including, as applicable, the completion dates, disposition of material, and responsible staff for each action. Describe, as applicable, what actions are needed to prevent recurrence of the identified nonconformance, such as process improvement, procedure revisions, training plan, etc., and include completion dates and responsible staff for each action.)

Independent verification required? Yes ☐ No ☐

Person(s) Responsible for the Corrective/Preventive Action and Disposition

_____

Name *Date*

Approval of Corrective/Preventive Action and Disposition

_____

Name *Date*

Closing the Nonconformance

Action Completed

_____

Name *Date*

Independent Verification Completed (if required)

_____

Name *Date*

Distribution: