Enclosure #9

NINE MILE POINT NUCLEAR STATION

SITE ADMINISTRATIVE PROCEDURES

PROCEDURE NO. AP-6.1

PROCEDURE FOR MODIFICATION AND ADDITION - UNIT 2

| APPROVALS | SIGNATURES | DATE AND INITIALS REVISION 0 | REVISION 1 | REVISION 2 |
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FOR INFORMATION ONLY

Summary of Pages

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NIAGARA MOHAWK POWER CORPORATION

THIS PROCEDURE NOT TO BE USED AFTER SUBJECT TO PERIODIC REVIEW.

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INTRODUCTION to AP-6.1, PROCEDURE FOR MODIFICATION & ADDITION - UNIT 2

The following Policy Statement from the Engineering Transition Plan is not part of this procedure. It is provided as background information, and establishes organizational and functional responsibilities during the transition period.

"This policy statement is to describe the transition plan for the NMP2 Engineering Organization and identify responsibilities during the period from fuel load through commercial operation. At fuel load, plant operation and administration is governed by NMPC's Administrative Procedures. Modifications to plant systems, structures, and components are under the control of NMPC Administrative Procedures and changes are processed in accordance with the requirements contained therein, as modified for NMP2 during the transition period. At fuel load, the overall technical responsibility relating to the engineering and design of Unit 2 rests with NMPC's Manager of Nuclear Engineering.

During the period of power ascension (fuel load to commercial operation), Project Engineering will be aligned along the organizational structure of the future Unit #2 Design Organization. Personnel designated for the NMP2 Design Organization will be matrixed into the Project Engineering Organization and assume responsibilities associated with both groups during the transition period. This includes three discipline leads (mechanical, electrical and structural) and a Lead Modification Engineer. this organization will provide the direct interface for NMPC Operations for Engineering Services (provided by SWEC or others) required during the power ascension phase.

Functions and responsibilities presently delegated to the Project Engineering Organization will be retained during this period. The technical responsibilities and authority for Engineering and Design will rest with te NMPC Manager of Nuclear Engineering, and may be delegated to the Manager of Engineering - NMP2 Project. Design Services, technical support of power ascension and assigned modifications can be provided by SWEC and conducted in accordance with their Corporate procedures and the Project Manual. Interface procedures required to integrate NMPC Operations, NMPC Licensing, Project Engineering and SWEC Engineering and Design will be developed such that the applicable administrative procedural requirements are implemented.

Modifications identified as being post-fuel load will be under the review and approval control of the NMP2 Change Review Committee. Design of modifications may be assigned to NMPC during the transition period in accordance with NMPC's Corporate Engineering Procedures or to the Project Engineering organization for Unit 2. Where the transmittal of design information to SWEC is required during the transition period, specific interface procedures will be developed."

# PROCEDURE FOR MODIFICATION AND ADDITION - UNIT 2

## 1.0 PURPOSE

This procedure describes the mechanisms for the initiation and control of, replacements, additions, or modifications (temporary or permanent) of plant systems or equipment. It delineates the persons and groups and their responsibilities and prescribes the methods to be employed for documenting these changes.

This procedure shall become effective for modifications to systems that have been accepted for Operations and will remain in effect for modifications assigned to the NMP2 Project organization for implementation in accordance with the NMP2 Project Procedures Program.

## 2.0 REFERENCES

NOTE: This list of references does not of itself constitute incorporation into this procedure of all or part of any reference. Regulations, guides and other procedures which are a part of this procedure are noted in the text where applicable.

2.1 NMPC-QATR-1, Quality Assurance Program, Topical Report For Nine Mile Point Nuclear Station Operations, December 1985.

2.2 Administrative Procedure AP-5.0, Procedure For Repair.

2.3 Administrative Procedure AP-7.0, Control of Material and Services.

2.4 Administrative Procedure AP-10.1, Management of Station Records.

2.5 Administrative Procedure AP-3.3.2, Placement of Jumpers/Blocks or Lifted Leads.

2.6 Appendix B of 10CFR50.

2.7 Quality Assurance Procedures - Niagara Mohawk Power Corporation.

2.8 ANSI/ASME NQA-1-1983, Quality Assurance Program Requirements for Nuclear Facilities.

2.9 NMPC Nuclear Engineering & Licensing Procedures (NEL's, ND's, NT's)

2.10 U.S. NRC Regulatory Guide 1.26, Quality Group Classification and Standards for Water, Steam, and Radioactive Waste Containing Components of Nuclear Power Plants.

2.11 ANSI/ASME B&PV Section XI, Article IWA 7200-through winter 1983 Addenda

2.12 10CFR50 Appendix R, 10CFR50.49

2.13 10CFR21

2.14 ANSI/ASME NQA-2-1983, Quality Assurance Requirements for Nuclear Power Plants.

2.15 ANSI N45.2.4 - 1972 (Unit 2)

2.16 ANSI/ANS 3.2 - 1982 Administrative Controls and Quality Assurance for Operational Phase of Nuclear Power Plants.

2.17 Project Manual for Nine Mile Point Unit #2 which defines and controls the NMP2 Project Procedures Program.

2.18 Administrative Procedure AP 6.0, Rev. 1, October 1985, Procedure for Modification and Addition.

2.19 NMPC Q-List, Unit 2

3.0 SCOPE

3.1 This procedure covers all modifications (temporary or permanent) and additions to the station process systems, structures, or components.

Changes as defined in 10CFR50.59 require a safety evaluation and are subject to the Quality Assurance requirements of Appendix B, 10CFR50. Procedures for all design activities involving safety related systems shall be in accordance with QATR-1, Section 5.0. The Niagara Mohawk Policy for changes to station design is contained in the QATR-1, Section 3.0.

4.0 GENERAL PROCEDURE

4.1 Exceptions

4.1.1 Replacements

1. Exact replacements procured in accordance with the applicable NMP2 QATR-1, Sect. 7.2.5 and/or ASME, Section XI, IWA-7210 (a) or (b) may be installed without recourse to a new design safety analysis. Applicable procurement and Quality Assurance requirements shall be met and station documentation of these replacements shall be updated to provide a current record of station components and configuration.
2. Replacements of quality listed components or systems which are procured in accord with ASME, Section XI, IWA7210(c) shall be subject to an analysis as noted in IWA7210(c) and in IWA-7220. Applicable procurement and quality assurance requirements shall be met for these replacements and station documentation shall be updated to reflect any changes.

a. When notified by a vendor that replacements for quality listed components or subcomponents are not considered safety related, it shall be the responsibility of the department which requested the components to request that the responsible design organization perform or obtain an independent determination or safety evaluation to classify these components, unless this evaluation has already been performed as indicated by classification in the Unit 2 Q-List.

3. Replacements which involve a change in design as described in 10CFR50.59 and hence require a safety evaluation shall be considered modifications and will be handled in accordance with paragraph 4.2 below.

4. All replacements which are not subject to the Quality Assurance Program and do not involve a design change as described in 10CFR 50.59 shall be made in accordance with established Project and Nuclear Generation Department procedures. Purchase requisitions originating on site shall be handled as required in accordance with the NMP2 Project Procedures Program. Station documentation shall be updated to reflect any changes.

4.1.2 Punchlist

Work items that are documented against equipment/systems on the Master Tracking System (MTS) or transferred to the Work Tracking System (WTS) at system acceptance, may be installed without recourse to a new design safety analysis. Any changes to the design installation must be evaluated as required by Section 5.5.7 of this procedure. Applicable Project/NMPC Corporate procurement and Quality Assurance requirements shall be met and station documentation shall be updated in accordance with the NMP2 Project Procedures Program to provide a current record of station components and configuration.

4.1.3 Non-Impact Documentation

Changes to design documents may be issued for corrections, clarifications or procedural reasons as long as those changes do not impact the basis on which the plant was accepted (i.e., safety analysis).

4.2 Modifications (Temporary or Permanent)

4.2.1 Site Modification Concept:

The concept for a change may originate with anyone. This may be the result of observed station performance, surveillance test experience or equipment failure frequency. Other sources of equipment or system change concepts may be one of the following reports (not necessarily all inclusive):

- NMPC Problem Reports (NMPR) as defined in the Startup Administrative Procedures (SAP's).
- NRC LER's, Bulletins, Circulars, Notices
- NRC Reactor Operating Experience Reports (ROE's)
- NRC Reactor Construction Experience Reports (RCE's)
- General Electric Operating Experience Reports (OR's)
- General Electric Technical Information Letter (TIL's)
- General Electric Service Information Letter (SIL's)
- General Electric Field Disposition Instruction (FDI's)
- General Electric Field Deviation Disposition Request (FDDR's)
- General Electric Product Service Information Letter (PSIL's)
- General Electric Operating Bulletins
- INPO (SERS & SOER)
- General Electric Product Experience Report
- Manufacturers or vendor bulletins or advisories issued in compliance with 10CFR21 or as the result of inservice inspection.

As a result of any of the above conditions or change concepts, a modification may be required. A Modification Request Form shall be prepared as delineated in Appendix 1 of this procedure:

- When required by the NMP2 Project Procedures Program, OR
- When a change is indicated based on review of the conditions/change concepts noted.

The reason for the change shall be inserted on the Modification Request by the originator.

4.2.1.1 Safety Evaluations

A safety evaluation is required for all modifications performed in accordance with this procedure. When the conceptual design of a modification has been sufficiently developed, a safety evaluation should be performed and included in the conceptual engineering package. The safety evaluation shall be in accordance with 10CFR 50.59. Safety evaluations completed by the responsible design organization shall be per the NMP2 Project Procedures Program. Safety evaluations are submitted to SORC for review at the option of the General Superintendent in accordance with Unit 2 Technical Specification and the Quality Assurance Programs. Safety evaluations are reviewed by SORC per AP-3.4.1. Safety evaluations shall be reviewed and revised, if required, after the design is finalized and after the modification is accepted for service. Final safety evaluations shall be reviewed by SORC.

4.2.1.2 Non Safety Related Changes:

Non safety related modifications shall be presented to the Station Superintendent or General Superintendent for approval. Implementation and documentation should be in accordance with this Procedure and the NMP2 Project Procedures Program and Nuclear Generation Procedures.

4.2.1.3 Safety and Quality Related Changes:

Safety related modifications and modifications which pertain to quality related systems (as designated in Note 34 of FSAR Table 3.2-1) shall be subject to all the controls of this procedure.

## 5.0 PROCEDURE

### 5.1.0 Request for Modification or Addition

All requests for modifications or additions shall be received, reviewed and processed by the NMPC Modification Engineer using the instruction and standardized format as provided in Appendix 1 Modification Request form. Requests originating from sources other than those described in Section 4.2.1 should be reformatted by the Modification Engineer on the standard form. Inputs for these forms should be taken from appropriate initiating documents.

The Modification Engineer assigns a serial number and enters the proposed modification in the computerized Modification Log (Appendix 2) (See 5.1.3 and 5.7.1). He also records this information on the Modification Request Form.

### 5.1.1 Review of Request

(See Appendix 1)

### 5.1.2 Transmittal

(See Appendix 1)

### 5.1.3 Modification Log

The Modification Log shall be a machine record of the schedule and status of all modifications or additions which have been proposed, are in progress, or have been completed. Each modification should be represented by a report line or set of contiguous lines and each major project event should be represented by a column. Appendix 2 lists the proposed data columns.

The NMPC Modification Engineering Group shall be responsible for maintaining this log.

### 5.1.4 Modification Request Disapproval

The originator and the responsible design organization shall be immediately notified of any modification request which has been disapproved in order to stop and cancel any engineering activities and documents.

## 5.2 Functional Specification and Conceptual Engineering

5.2.1 As soon as a design change is determined to be mandatory or required based on action by the Change Review Committee (CRC), the responsible design organization will initiate conceptual design activities. In order to expedite design changes, design activities may start upon receipt of a Modification Request by the Lead Modification Engineer. Should the modification be disapproved during review, then all design activities will stop upon proper notification by the Modification Engineer.

To ensure that the Operators are aware of pending changes to the configuration of the plant, the Modification Engineer shall ensure that the critical drawings as defined by NMP2 Project procedures at each controlled location are marked with the Modification Request number and approval date.

The responsible design organization will assign a Responsible Design Engineer (RDE) who will contact Operations and Construction to determine schedule requirements for design completion. Cost information will also be compiled (as required by Project Procedures) at this time, and will be supplied to the Project Cost organization.

As required by the NMP2 Project Procedures Program, the RDE will contact other engineering disciplines, specialists, Construction, and Operations as necessary to complete the conceptual design.

5.2.2 The Responsible Design Engineer shall prepare the Conceptual Engineering Package, as detailed in the NMP2 Project Procedures Program, which includes as a minimum:

1. Functional Specification (Appendix 9 or equivalent)
2. Conceptual Safety Evaluation
3. Fire Protection Review
4. ALARA Benefit and Impact Review

5.2.3 The safety evaluation associated with the Conceptual Engineering Package shall be sufficient to establish either that the modification is not safety related or that there is no unreviewed safety question in accordance with 10CFR 50.59. If the Conceptual Safety Evaluation results in an opinion that the modification is safety related, then an in-depth safety evaluation shall be performed by the responsible design organization in accordance with the NMP2 Project Procedures Program. The responsible design organization will coordinate with NMPC Nuclear Licensing to ensure that proper notification is provided to the NRC and approval requested when appropriate.

If there is (or potentially is) an unreviewed safety question, there must be a report to NRC according to 10CFR 50.59. NMPC Nuclear Licensing shall manage the preparation of a presentation which should be reviewed by SORC and SRAB according to Technical Specifications.

5.2.4 After the Conceptual Engineering Package is approved within the engineering group and a conceptual design is available, the Modification Engineer should arrange a review using the Modification Review Form in AP 3.4.1 with the appropriate site, Q.A., Purchasing, Engineering, Construction, Fire Protection and ALARA personnel to review the design. The results of the design review should be documented by the Modification Engineer.

5.2.5 If during the course of conceptual engineering, it becomes evident that the modification, as originally proposed, should be subdivided into two or more separate testable functional designs, Modification Requests shall be generated for each new modification. Separate presentations should be prepared for SORC. Each presentation should follow the foregoing procedural steps.

If constraints to completion of portions of the design for individual modifications to support issuance of a complete engineering package at one time are known and workaround plans can be developed, then the Conceptual Engineering package shall contain this information and be presented to SORC for review. Final SORC approval for full implementation/installation/operation of any modification, however, requires the design to be completed and reviewed as detailed in this AP.

5.2.6 The Modification Engineer should arrange a SORC meeting to review and/or approve the Conceptual Engineering Package. The RDE should attend that SORC meeting; unless, after discussion with the Station Superintendent, it is determined that no design engineering involvement is required. The SORC Modification Review form in AP-3.4.1 should be prepared for the SORC meeting. The Station Superintendent may waive a conceptual design review for minor modifications at the request of Modification Engineer.

5.3 Design Phase

When SORC has completed review of the Conceptual Engineering Package, the responsible design organization may proceed with the complete detailed design. The Final Design is culminated by a second SORC review of the safety evaluation and the Final Design documents (See Section 5.3.11). Any required revisions are incorporated in the design documents and/or Safety Evaluation.

5.3.1 Design Criteria

For systems as described in the criteria of Appendix A, 10CFR50, the design procedures shall be in conformance with ANSI/ASME NQA-1 and NQA-2-1983. The responsible design organization may proceed according to the NMP2 Project Procedures Program.

Approved design documents related to Modifications will be noted with the specific Modification Control Number and will not be issued for construction until SORC approval of the final design. Only approved copies of the design documents will be presented to SORC with the final design package. Work copies will be issued in accordance with the NMP2 Project Procedures Program.

5.3.2 Preliminary Design Review

It shall be the objective of the Responsible Design Engineer, that the design package be reviewed for ALARA considerations, installation and inspection requirements and the applicability of any installation plans or inspection plans to be utilized. In addition, any perceived conflicts or impacts of the installation work upon other systems must be addressed. The Responsible Design Engineer and/or any other affected organizations may, at their discretion, schedule a meeting with all parties concerned to ensure that conflicts or impacts, if any, are resolved so they will not adversely affect the installation work.

5.3.3 Design Production

All design, installation and test drawings, instructions and manuals pertaining to the modification shall be issued in accordance with this procedure and applicable document control procedures as described in the NMP2 Project Procedures Program.

5.3.4 The Responsible Design Engineer, shall review the completed conceptual design to determine if the modification should be divided into separate distinct modifications if this function has not already been performed. A separate Modification Request Form shall be initiated whenever a new "sub-modification" is identified and the new Modification Request will be required to undergo full review in accordance with this procedure (Refer to Section 5.2.5)

5.3.5 The responsibility to assure that all materials or spare parts specified for installation have been identified, procured and/or purchased in accordance with all applicable quality requirements shall be shared by two organizations.

The Responsible Design Organization shall ensure that all material and equipment needs to satisfy the design are identified and specified as detailed in appropriate NMP2 Project procedures. In addition, the responsible design organization shall support the procurement organization as required to meet modification requirements.

The Responsible Procurement Organizations (i.e., Materials Management and Purchasing) shall ensure the timely procurement, receipt, storage and issuance of requisitioned material and equipment to support the modification as required by appropriate NMP2 Project and Administrative procedures.

5.3.6 All design, procurement, installation and test activities shall be performed in accordance with applicable codes. Material Defects and Noncompliances shall be reported as required by 10CFR-21 in accordance with the NMP2 Project Procedures Program as applicable.

5.3.7 The computerized nuclear materials control system managed by the Materials Management Department shall be used for maintaining the status of all materials incorporated in the installation of a modification. The Responsible Design Organization shall be responsible to ensure that information on materials requirements are delivered to Materials Management as soon as available. A listing of the data required is shown in Appendix 4.

The Master Equipment List (MEL) shall also be updated in accordance with NMP2 Project Procedures as required.

5.3.8 Drawing Control Schedule

Production and control of required drawings for each modification will be in accordance with the NMP2 Project Procedures Program.

5.3.9 Procedures, Instructions and Manuals

Procedures, instructions and manuals required for completion of the modification will be available through or issued in accordance with the document control procedures as described in the NMP2 Project Procedures Program.

5.3.10 Preliminary Installation Plan

When the Responsible Design Engineer determines that design layouts, equipment, locations, cable routings, piping routings, specifications, etc. have been completed in sufficient detail, he shall arrange to produce preliminary installation plans and inspection requirements.

The installation plan shall be prepared as per Appendix 5. It will include requirements for removal and/or relocation and documentation of existing station equipment or facilities and the location and scope of each proposed installation activity module. It is not expected that sufficient detail will be available to produce a detailed installation schedule, but the scope and sequence of each construction element should be present. The responsible design engineer should resolve any open items generated as a result of the review of the installation plans by others.

1) The Supervisor Operations or his representative will advise on the impact of the modification installation plans upon the safety and integrity of the other systems.
2) The Quality Assurance representative and the installer shall concur on hold and witness points for required tests and inspections.
3) The installer will input upon the interrelationship of plans which involve the coordination of work between the principal crafts such as mechanical, electrical, and instrumentation and control.
4) The ALARA Coordinator or designee, shall review the installation plan and inspection requirements and recommend methods to minimize exposures during installation and inspections.

5.3.11 Final Design Review

When the final design has been completed and all documents reviewed for installation, the responsible design organization shall conduct a final review of the safety evaluation and revise it if required. The ALARA review and fire protection analysis should also be reviewed. The safety evaluation, if revised, should then be presented to SORC by the Modification Engineer, if necessary, using the SORC Modification Review Form in AP-3.4.1. If there is no revision to the safety evaluation, the safety evaluation presented with the conceptual design should be considered final.

5.3.12 In addition to the review by SORC, the design description, final safety evaluation and recommendations for all modifications to plant systems or equipment which constitute changes pursuant to 10CFR50.59 must be submitted to the Safety Review and Audit Board for their review and recommendation. Any modification which involves an unreviewed safety question requires NRC approval prior to implementation. Any modification which involves a Technical Specification change requires NRC approval prior to acceptance of the modification for operation. Notification to and approvals from the NRC shall be coordinated as required by Section 5.2.3 of this Procedure. Changes to procedures for or pertaining to a safety related modification may be made in accordance with Section 6.8 of Technical Specifications.

5.3.13 Engineering Materials Record
During the course of the modification process, the following documentation will be generated as required by NMP2 Project Procedures prior to issue of the completed design package for installation:

a. Specifications for design or purchase
b. Proposals and quotations by vendors
c. Requisitions for materials or services
d. Bid awards and contracts
e. Purchase orders
f. Vendor Certifications, tests and inspections

5.3.14 Installation Plans

Each modification shall include a comprehensive set of installation plans (Appendix 5) and inspection plans (Appendix 6 or equivalent) developed by the Responsible Design Engineer. It shall be his responsibility that those plans when taken together will provide for complete installation and testing of the modification up to the certification that it is ready for acceptance or preoperational testing.

5.4 Installation Plan and Scheduling

5.4.1 Design Completion Transmittal

The completed design for each modification shall be controlled via use of the Modification Request number and processed in accordance with the NMP2 Project Procedures Program. Coordination with Operations Planning as required in the Project procedures will provide them with the information required to plan and schedule approved plant modifications.

5.4.1.1 Before endorsing a safety related modification design or portion for implementation, the Station Superintendent or General Superintendent shall be assured that a final safety analysis and review has been completed for all safety related modifications and that the Modification is in conformance with an approved Technical Specification.

5.4.1.2 The required distribution of design documents for construction shall be in accordance with document control procedures as detailed in the NMP2 Project Procedures Program. However, no copies of drawings for construction shall be issued without the knowledge and permission of the Modification Engineer.

5.4.2 Issue of Modification Work Request (MWR)

Upon notice from the Station Superintendent that work planning and implementation of the modification should start, Operations Planning shall issue a Modification Work Request (MWR) (Appendix 7) for each design package delivered for installation, and initiate the Work Tracking System (WTS) machine record as the official tracking system for modification installation. The MWR shall constitute a cover under which subsequent site documentation on the installation shall be maintained.

If the modification is to be installed by a contract organization, appropriate MWRs shall be issued to the Niagara Mohawk supervisor designated responsibility for installation of the modification. He shall be responsible that data required for the equipment history and modification completion is obtained and transferred to the Modification Coordinator for installation in the station records.

If Project Contractors are to perform the installation, the modification installation work may then be sub-assigned in accordance with NMP2 Start Up Administrative Procedures (SAP's) as delineated therein. Upon notice from the Station Superintendent, Operations Planning shall notify Startup and Test as to when the implementation of the modification shall begin.

5.4.3 Site Planning/Scheduling Meeting

At their discretion, Operations Planning may arrange a meeting with the department supervisors or representatives from all departments to whom installation plans have been issued for a particular modification. The meeting should include representatives of Site Quality Assurance, the Site ALARA Group, Radiation Protection, Technical Support, Operations, and Training. Others may be included as appropriate. For the more complex modifications, Engineering representatives should be present to resolve questions concerning the installation plans.

a. Installing Supervisors

The Installation Supervisors or planners shall determine the personnel requirements, elapsed hours, station services and construction equipment requirements for each module called for in their installation plans. Where a given module is dependent upon another, the interrelations shall be delineated.

b. Installation Procedures

The Installation Supervisor shall arrange with the Supervisor Technical Support or the Responsible Design Organization for the production of any required procedures. The schedule for production of these procedures shall be coordinated with ALARA pre-job planning, the schedule for installation and with the overall schedule for plant start-up following an outage for modification, and/or repair.

c. Tests and Inspections

For scheduling purposes, tests and inspections must be integrated with the installation plan. The Quality Assurance representative shall identify the hold and witness points for tests and inspections.

d. ALARA Coordinator

The ALARA Coordinator or his representative shall identify any schedule requirements or special operation or procedures which will have an impact upon schedule or personnel requirements.

e. Radiation Protection

The Radiation Protection Supervisor or his representative shall arrange for scheduling of radiation protection services.

f. Operations

The Supervisor Operations or his representative shall arrange for the scheduling and production of operating, pre-operational testing and surveillance procedures. AP-8.2 (Surveillance Testing & Inspection Program) and AP-8.6 (Procedure for Preoperational Tests) defines the responsibilities and activities needed to comply with these requirements. He will also consult with others on the impact of the modification work on the safety and integrity of other station systems.

g. Training

The Superintendent Training or his representative shall arrange for production of necessary training materials and the scheduling of training for Operations and Maintenance personnel. The activities needed to comply with this requirement are defined in AP-9.0.

h. Schedule Production

The Operations Planning Department should produce schedules showing the planned start and completion date for each activity, the total elapsed time for the entire modification and the resources required for each activity. Charts, schedules, elapsed time intervals, and total manpower requirements may be produced by computer to include installation work, tests inspections, procedure production, training plans and training. The schedules for the production of procedures, inspections and tests should be integrated with installation work schedules to assure timely availability and completion. Time for the production and issue of prerequisite procedures should be considered. Quality and other tests and inspections should be integrated with the production schedule. (See Section 5.4.3.3).

5.4.3.1 Production of Installation Procedures

1) Installation procedures for Niagara Mohawk shall be prepared to the requirements of AP-6.1, AP-7.0 and AP-3.2.1. If the quality provisions of these procedures apply, these procedures shall meet the applicable requirements of ANSI/ASME NQA-1 Requirement 13, ANSI/ASME NQA-2 Sections 2.4 and 2.8, or other standards as established by Responsible Design Organization. Installation procedures shall be reviewed by Responsible Design Organization to these requirements. Installation procedures shall be referenced by Responsible Design Organization and indicate any required changes on the design transmittal. Installation procedures shall be reviewed and approved by AP-3.4.1 and AP-2.0. Installation procedures shall be available to the Quality Assurance Organization prior to start to work.

2) For modifications installed by Project organizations, Installation Procedures will include selected Project and Station Procedures which will be consolidated via a single Project procedure dedicated to Modification installation. Installation procedures shall be reviewed and approved by AP-3.4.1 and AP-2.0. Installation procedures shall be available to the Quality Assurance Organization prior to start of work.

5.4.3.2 Production of Contractor Procedures

Contractor procedures shall be prepared to the specification requirements and should be reviewed by Responsible Design Organization to these requirements. Contractor procedures shall be reviewed and approved in accordance with AP-3.4.1, Site Operation Review Committee Procedures and AP-2.0, Procedure for Control of Procedures. Approved procedures for installation shall be available to the Quality Assurance Organization prior to start of work.

5.4.3.3 Issue of Schedule

The Operations Planning Department is responsible for preparing and maintaining the installation schedules for each modification.

Before issue of the schedule for implementation, the Modification Engineer shall ensure that the ALARA Radiation Protection and Quality reviews and the prerequisite procedures for the installation package of the modification have been completed. This documentation shall be furnished to the Installation Supervisor and to the project file via the Modification Engineer as required by the NMP2 Project Procedures Program.

5.4.3.4 Modification Schedules

Work schedules produced by project organizations should be delivered to Operations Planning for integration with schedules by site organizations and to minimize conflicts.

5.4.3.5 Maintenance of Installation Schedule

Operations Planning is responsible for updating work schedules on a weekly basis.

5.5 Installation or Modification

5.5.1 Initial Documentation at Work Dispatch Location

The minimum documentation required to initiate the installation of the modification shall be in accordance with the NMP2 Project procedures and Start-Up Administrative Procedures (SAP's) applicable for the work to be performed. The documentation package shall include work assignment documents which are prepared and processed in accordance with the applicable procedures.

5.5.2 Subsequent Drawings, Instructions, Correspondence

Until closeout of the modification copies of all correspondence, drawings, documents, etc. related to the modification shall be marked with the assigned Modification Request Number or other means to ensure traceability to Modification Request Number as required by Section 5.7.1. Further definition of document control requirements are provided in Section 8 of this procedure.

5.5.3 Assignment of Work

Work may commence on the modification whenever authorized by the General Superintendent or Station Superintendent and upon completion of the following prerequisites:

1. A final safety evaluation reviewed and approved by SORC. For a specific modification, the Station Superintendent may authorize work to be performed, so long as the modification is not connected to an inservice systems, pending final safety evaluation approval.

2. A modification Work Request (MWR) and referenced documentation have been issued. The referenced documentation should include the design documents and other documentation as required by applicable Project and Administrative Procedures.

5.5.4 Start of Work

When a definite schedule for starting work is received at the Work Dispatch Station, the installer should obtain the necessary radiation work permits and markups and satisfy other prerequisites as defined in installation procedures.

5.5.5 Responsibilities

The contractor or Niagara Mohawk organization responsible for installation shall proceed in accordance with approved procedures. The Station Superintendent shall act as the general manager for installation of a modification. Site supervision shall be directly responsible to him. If a Project Manager has been designated, he also should report directly to the Station Superintendent for scheduling and coordination.

The installing supervisor shall be responsible that all documentation attesting to the completeness and quality of the installation are attached to the Modification Package or that lists and schedules attached to the package refer to the location of this documentation. The Planning Coordinator in the Operations Planning Department shall keep Quality Assurance, Operations and the ALARA Coordinator appraised of the installation schedule at all times.

5.5.6 Out of Plant Organizations

In general, out of plant engineering organizations responsible for the design of modifications should furnish field supervision and inspection personnel to assure that the modification is installed as specified. Arrangements for the cooperative use of station forces and for the receipt and control of material shall be coordinated with the Station Superintendent. The facilities of the Materials Management Department shall be used to the maximum extent possible.

5.5.7 Changes During Modification Installation

Changes which may affect the original safety analysis must be processed through the same procedures as the original modification. Documentation of changes shall be processed in accordance with the NMP2 Project Procedures Program. In addition, changes to installations excluded from this procedure (Section 4.1) which may affect the original safety analysis must also be processed in accordance with this procedure.

5.5.8 Materials and Equipment

All material and equipment to be installed for the modification shall be controlled and handled in accordance with the applicable Project procedures or Administrative procedures.

5.5.9 Tests and Inspections

All tests and inspections performed as part of the Construction installation shall be in accordance with the applicable Project and Administrative procedures.

5.5.10 Logs and Data Lists

The Document Control Information System (DCIS) shall be used to consolidate all the latest revisions of drawings, procedures, specifications, etc. pertinent to the installation of a modification. Changes to such material subsequent to a modification shall be in accordance with the applicable NMP2 Project procedures and this Administrative procedure.

5.5.11 Completion

a. The installer(s) shall ensure that all portions of the modifications are complete and functionally tested for operation as specified in the installation plan indicating work completion and report to his supervisor that the equipment and system is ready for pre-operational or acceptance testing and/or final inspection.

b. The responsible supervisor or project engineer to whom the installer reports shall examine the completed work package and document his review by signature and date.

5.5.12 Quality Control

Quality Control Work activities related to installed equipment shall be performed in accordance with the applicable QA/QC program requirements.

5.5.13 Defects, Nonconformances

Deficiencies identified during construction shall be resolved in accordance with the NMP2 Project Procedures Program or site procedures as applicable.

5.5.14 Acceptance for Test

Preoperational tests shall be performed in accordance with AP-8.6. Successful completion of a preoperational test according to AP-8.6 is ordinarily prerequisite to full acceptance for operation.

5.6 Acceptance for Operation

5.6.1 Procedures for Operation and Test

The procedures noted in Section 5.4.3f should be available at the time of completion of the installation work. These procedures shall have been reviewed and approved according to AP-2.0 and as required by the Technical Specifications.

Operations and technical personnel shall be trained in the new or revised Operating and Test procedures prior to test and acceptance.

5.6.2 Testing and Operation

5.6.2.1 After installation is completed, a pre-operational test or suitable acceptance run or inspection is required for each station modification which involves changes or additions to components or systems involved in the operation of safety related systems. This may be an incorporation into existing pre-operational tests. The details of the preparation and conduct of pre-operational tests is contained in AP-8.6.

The Technical Support department will arrange a pre-operational test. The Responsible Design Organization should be consulted for any anomalies in the test results. These anomalies must be resolved prior to placing the system or component in service.

5.6.2.2 After the pre-operational test is completed, the Responsible Testing Organization representative shall submit the test results to the Responsible Engineering Organization, SORC, Quality Assurance & SRAB for review and approval as required by the AP-8.6 and the Technical Specifications.

5.6.2.3 Once a pre-operational test, if applicable, has been approved by SORC or the operational or acceptance test has been completed, the modification shall be reviewed for acceptance by Operations by completing the modification operability acceptance form. (Appendix 8)

To ensure that the Operators are aware of completed (i.e., operationally accepted) changes to the configuration of the plant, the Modification Engineer shall ensure that the critical drawings at each controlled location are marked with the modification completion date. In addition, a copy of the modification package drawings will be stapled to the critical drawings. An "as-built" drawing issue will be completed as required by Section 8.3.1 of this procedure.

5.7 Coordinated Project Management

5.7.1 Modification Request Log

The Modification Engineer is responsible for assuring that each modification is entered into the Modification Request Log starting with the conception of the modification. All subsequent documents generated as a part of a specific modification shall be traceable to the Modification Request Number. (See Sections 5.1.0 and 5.1.3)

5.7.2 Integrated Work Schedule and Report

Operations Planning will publish an integrated schedule showing all planned modification, major maintenance and major testing operations which will be concurrently in progress. This will be projected to the conclusion of the outage during which modifications are being installed.

## 6.0 CLOSEOUT PHASE

6.1 The Modification Engineer is responsible for the preparation of the Modification Closeout Checklist (Appendix 9).

6.2 Development of as-built drawings shall be as required by Section 8.3.1.

6.3 The Modification Engineer shall coordinate with the Responsible Design Engineer to perform a final review of the as-built installation and compare with the safety and ALARA evaluations. This review shall be documented and noted in the Modification Closeout Checklist (Appendix 8). All concerns identified shall be resolved in accordance with the applicable Project Procedures. Actual deviations are considered modification revisions and are processed per this procedure.

6.4 The ALARA Coordinator shall prepare a post ALARA Evaluation report in accordance with RP-8.

## 7.0 RESPONSIBILITIES

This section is a recap of duties noted throughout the text of the procedure. However, also listed are duties which are implied in the body of the procedure, some of which are derived from the engineering flow chart, Appendix 10, and others which are related only to the forms in the appendices.

### 7.1 Site Organization

7.1.1 Station Superintendent - The Station Superintendent is responsible for:

(1) Approving modifications using the Modification Request form.
(2) Recommending priority group for modification through participation in the Change Review Committee.
(3) Assignment of site contacts for modifications.
(4) Assuring timely review, by SORC & SRAB, of safety evaluations.

7.1.2 Site Contact

Site Contacts for a given modification could be from site technical support staff, maintenance staff or the project construction staff. In any event, the site contacts are responsible for:

(1) Interface with the Station Superintendent to assure proper site review of conceptual design (AP-3.4.1).
(2) Attend project meetings, as required, or arrange an alternate to attend.
(3) Coordinate field installation concerns which do not require engineering assistance. The site contact may not be responsible for installation.
(4) Ensure that modification is installed, tested and accepted for operation in accordance with the requirements established (Appendix 7)
(5) Ensure that ALARA considerations are incorporated into the phases of installation.

7.1.3 Installer

The installer for a given modification could be from the maintenance staff, technical support, or Project Construction forces. The installer is responsible for:

(1) Ensuring modification is installed in accordance with the design requirements including installation and inspection plans.
(2) Timely notification to Responsible Design Organization of proposed deviations to design requirements in accordance with the NMPC Project Procedures Program and Administrative Procedures.
(3) Timely completion of installation documentation and as-built drawings.
(4) Ensuring contractor documentation is provided and included with the work package.
(5) Notifying Q.C. of impending holdpoints.

7.1.4 Supervisor of Technical Support

(1) Coordinator of assignments of Site Contacts (Appendix 1).
(2) Timely development of modification preoperational tests or other final test. Engineering assistance may be requested, if required (AP-8.2).

7.1.5 ALARA Coordinator

(1) ALARA engineering services during all phases of modifications performed.
(2) ALARA Plan (if required) for modification installation.
(3) ALARA tracking (if required) during installation
(4) ALARA Review of Preoperational procedures.
(5) Post ALARA evaluation.

7.1.6 Start-Up & Test

(1) Coordinate the assignment, tracking and completion of modification installation activities in accordance with the NMP2 Start-Up Administrative Procedures.

(2) Coordinate the performance of Preoperational Tests as directed by the Station Superintendent.

7.2 Engineering Organization

7.2.1 The NMPC Manager of Project Engineering - The NMPC Manager of Project Engineering is responsible for:

(1) Ensuring that the modifications, which have been approved by the Station Superintendent and the Change Review Committee, are properly planned and staffed for timely implementation.
(2) Assignment of engineering personnel.
(3) Ensuring that all engineering documents and drawings are developed in a timely fashion.
(4) Assurance that all applicable Engineering Procedures are met.

7.2.2 Lead Modification Engineer - The NMPC Lead Modification Engineer is responsible for the following:

(1) Ensuring that all modifications have properly completed Modification Request forms - (Appendix 1).
(2) Conducting modification status review meetings as required.
(3) Assigning a NMPC Modification Engineer for each modification and ensuring that Responsible Design Organizations have engineering teams/personnel assigned for all modifications.
(4) Preparing input for modification status summary reports.
(5) Processing and controlling Modification Requests.
(6) Ensuring the proper implementation of applicable NMP2 Project Procedures in support of modifications.

7.2.3 Modification Engineers - The NMPC Modification Engineer is responsible for the following on all assigned modifications.

(1) Receive, review and process Modification Request Forms for each modification and assignment of control numbers.
(2) Coordination of conceptual design and SORC review.
(3) Ensuring close coordination by the responsible design organization with the site contacts and other site participants designated by the Station Superintendent and Quality Assurance.
(4) Documentation of meetings held for specific modifications.
(5) Coordinate the proper preparation of Safety evaluations by the responsible design organization and signoff by NMPC Project Engineering.
(6) Ensure the coordination of reviews by the responsible design organization for fire protection and ALARA and ensure coordination with the appropriate site personnel.
(7) Presentation of safety evaluations to SORC. (AP-3.4.1).
(8) Coordination of final design in accordance with the required schedule.
(9) Review or assist in the development of the pre-operational test procedure (AP-8.2) if requested by Technical Support. Resolve any anomalies as requested by Technical Support.
(10) Assuring that as-built information is incorporated into the final drawings in accordance with NMP2 Project Procedures Program.
(11) Ensure the close coordination of all planning and scheduling activities with Operations Planning for each modification.
(12) Ensure the incorporation of ALARA considerations into design and installation planning.
(13) Maintenance of the modification record.
(14) Close-out of the modification record.

7.2.4 Responsible Design Engineers - All Responsible Design Engineers are responsible for the following on each assigned modification:

(1) Prepare manhour and equipment estimates as required by Project Procedures.
(2) Compliance with the approved functional specification or recommend revision.
(3) Providing schedule information to the appropriate Planning/Scheduling organization.
(4) Completion of the drawings.
(5) Support procurement of material and equipment as detailed in NMP2 Project Procedures.
(6) Preparation of specifications.
(7) Conduct and documentation of a preliminary design review of the marked up design with the site contact, installers, Quality Control, and ALARA contacts.
(8) Development and/or review of site installation procedures to functional specification requirements and recommending changes as required.
(9) Preparation of the requirements for installation. This could include specifications, procedure change recommendations, M&E list review, drawings, and installation plan.
(10) Assuring technical manuals are obtained from vendors, reviewed, and distributed in accordance with Project Procedures.
(11) Disposition of drawing change requests.
(12) Arrange updating of drawings to the as-built condition after installation in accordance with Project Procedures.
(13) Incorporating ALARA considerations into design and installation planning.

7.2.5 Lead Scheduling Engineer - The Lead Scheduling Engineer is responsible for the following on all modifications within Project Engineering.

(1) Acquisition of data necessary to the plan and schedule the engineering of modifications.
(2) Development of schedules.
(3) Providing planning information to the Operations Planning for scheduling.
(4) Reporting status to the Modification Engineer any required modification which is in conflict with the schedule.
(5) Collecting of manhour estimates.

7.2.6 Project ALARA Coordinator

(1) ALARA engineering input during the project conceptual phase.
(2) ALARA preliminary design review.
(3) Final ALARA design review.

7.3 Quality Assurance Organization

7.3.1 Manager of Quality Assurance - The Manager of Quality Assurance responsibilities are as follows:

(1) Assignment of Site and System Quality Assurance personnel to the project as required.
(2) Assuring modification is designed in accordance with engineering procedures.
(3) Assuring modification is installed in accordance with site and NMP2 Project procedures as applicable.
(4) Assuring material is procured and contracts are placed in accordance with NMP2 Project procedures.

7.3.2 Quality Assurance Contact - Quality Assurance contact is responsible for the following:

(1) Providing initial input at the preliminary design stage relative to inspections and other Quality Assurance requirements as required by NMP2 Project procedures.
(2) Assuring inspections are performed as required by contract requirements or site installation procedures.
(3) Monitoring the project during engineering and construction to assure compliance with regulations, standards and specifications.
(4) Coordinating the QA review of the final document package to assure that the modification documents are in accordance with established requirements.

8.0 PROJECT RECORDS AND CONTROLS

8.1 Modification Engineer

A Modification Engineer shall be designated to keep track of the status of all temporary and permanent modifications. A log (Appendix 2) of all modifications shall be maintained for the station modification files. Whenever the Modification Engineer is informed that a proposal has been accepted by the Change Review Committee Station Superintendent or General Superintendent as a station modification, the Modification Engineer shall assign a number to the modification (Appendix 1). All required records and reports shall be traceable to the control number assigned to each modification. The flow chart (Appendix 10) attached to this procedure will assist in visualizing the steps involved in the accomplishment of a modification.

8.2 Files

Documentation related to each modification will be maintained as required by the document control procedures and NMP2 Records Management Program as detailed in the NMP2 Project Procedures Program. Traceability for records related to specific modifications will be provided through the control number assigned to each Modification Request. The required content of each file shall be established in accordance with those requirements.

8.3 Design Document Revisions

Revisions to drawings, specifications, instructions, etc. shall be prepared in accordance with applicable design controls procedures in the NMP2 Project Procedures Program.

8.3.1 As-built documents:

As-built documents shall be prepared in accordance with the applicable NMP2 Project Procedures Program.

8.3.2 Upon completion of the modification, approved copies of new and revised drawings shall be issued in accordance with the NMP2 Records Management Program and the NMP2 Project Procedures Program.

8.4 Machine Records Log

The basic records for modifications are indexed and controlled on the following set of sortable machine records logs:

a. Modification Log

This is a computer record maintained by the Modification Engineer to present the schedule and status of all pending and presently working modifications.

8.5 Forms in Appendix

The appendices attached to this procedure contain forms referred to in the procedure which are intended to assist in management of modifications. In order to provide the flexibility to adapt the forms to different size modifications, the forms may be adapted to a specific modification.

## 9.0 APPENDIX SUMMARY

| Appendix Number | File Location | Log Prefix | Responsibility | Title |
|---|---|---|---|---|
| 1 | Site | | Mod. Engineer | Modification Request Form |
| 2 | Site | | Mod. Engineer | Modification Log |
| 3 | Site | E | Resp. Design Engineer | Functional Specifications |
| 4 | Site/Eng | Z002 | Design Eng/Materials Management | Material and Equipment Control Log |
| 5 | Eng | F | Design Engineering | Installation Plan |
| 6 | Eng | F | Design Engineering | Inspection Plan |
| 7 | Site | A | Ops. Plng./Installer | Modification Work Request |
| 8 | Site | K | Site Tech. Support | Mod Operability Acceptance |
| 9 | Site | Z007 | Mod. Engineer | Modification Closeout |
| 10 | | | | Flow Chart |

## APPENDIX 1

## MODIFICATION REQUEST FORM

## INSTRUCTIONS

1.1 The title is a description in a very few words.

1.2 Provide a sufficient description of the modifications to permit evaluation of the scope and benefit. Include reference to initiating document.

1.3
a. Note the reason for change by checking the appropriate box.
b. If the modification is to consist of replacement of an existing system or component, outline the specification or performance of the existing system and explain what variations are desired in the proposed system or component.
c. If the modification consists of the addition of new systems or components, outline the deficiencies in the existing plant or plant systems and explain the improvements in plant performance or safety which may be accomplished.

1.4 Provide reference document for change. List any documentation which would assist in the scope definition or justification of the modification. For minor modifications, attach a marked up elementary or P&ID to show change.

1.5 What do you believe will be the safety class?
QC Class - 1 - Safety Related
2 - Reliability Related
3 - None of the Above

1.6 Enter what priority group the modification should be completed by and any appropriate remarks.

1.7 Originator signs his name and gives to his supervisor for review and approval.

1.8 Supervisor signs his approval or adds a memorandum citing his reasons for disapproval. He then forwards the request to the NMPC Lead Modification Engineer for logging and numbering. Proposals originating off site shall be routed to the attention of the NMPC Lead Modification Engineer.

1.9 The Modification Engineer records the request in the Modification Log and assigns a control number.

2.1 The recommended design organization, when utilizing AP-6.1, will always be Nuclear Engineering. Subsequent assignment is at the discretion of the Manager of Nuclear Engineering.

2.2 Not applicable for AP-6.1.

## APPENDIX 1

## MODIFICATION REQUEST FORM

## INSTRUCTIONS

2.3 Upon receipt of a request for modification or addition, the Station Superintendent or General Superintendent will approve or disapprove a request as noted on the Modification Request form. He will also establish the priorities for further implementation of the modification and affirm or alter the recommendation concerning the design organization. The Station Superintendent or General Superintendent should confer with the Manager of Design Engineering on the modification being considered through the Change Review Committee.

The project priority is assigned by completing the priority group section of the Modification Request Form.

3.1 After review by the Station Superintendent or General Superintendent, the Modification Log is updated to show the disposition and date. The Modification Engineer records the transmittal on the Request Form.

The Request Form and attachments are then sent to the organization designated to perform the design engineering.

3.2 The Manager of Nuclear Engineering concurs with the assignment and priority group.

3.3 The Modification Engineer updates the Modification Log.

NIAGARA MOHAWK SYMBOL NO. 56-22-102

# MODIFICATION REQUEST FORM

313-136 (8/94-85)

## 1.0 PROPOSAL

UNIT: ☐ 1 ☐ 2

1.1 MODIFICATION TITLE _____

1.2 DESCRIPTION OF CHANGE _____

1.3 REASON FOR CHANGE: ☐ REGULATORY ☐ SAFETY ☐ EFFICIENCY ☐ ALARA ☐ PLANT OPERABILITY/MAINTAINABILITY

☐ OTHER _____

1.4 REFERENCES: NRC REGULATION _____ CODE OR STANDARD _____ SYSTEM NO. _____

COMPONENT NO. _____ EQUIPMENT TITLE _____

DRAWING _____ PROCEDURE _____ NONCOMFORMANCE _____

1.5 MODIFICATION CLASS: QC CLASS ☐ I ☐ II ☐ III • NRC SAFETY RELATED ☐ YES ☐ NO

1.6 RECOMMENDED PRIORITY GROUP _____ REMARKS _____

1.7 ORIGINATOR NAME _____ DEPT. _____ DATE _____

1.8 APPROVED _____ DATE _____
SUPERVISOR

1.9 MOD. CONTROL NO. [N | | Y | | | MX | | | ] MOD. COORD. _____ DATE _____

## 2.0 REVIEW

2.1 RECOMMENDED DESIGN ORGANIZATION ☐ NUCLEAR ENG. ☐ TECH. SUPPORT WITH NUCLEAR ENG. SUPPORT

RECOMMENDED SITE CONTACT _____

SUPERVISOR TECH. SERVICES _____ DATE _____

2.2 PROPOSAL ☐ APPROVED ☐ TABLE. RECONSIDER DATE _____ ☐ DISAPPROVED _____
TECHNICAL SUPERINTENDENT

2.3 PROPOSAL ☐ APPROVED ☐ TABLE. RECONSIDER DATE _____ ☐ DISAPPROVED

PRIORITY GROUP: 1. ☐ NEED PRIOR TO NEXT OUTAGE 2. ☐ NEED NEXT OUTAGE 3. ☐ WANT PRIOR TO NEXT OUTAGE

4. ☐ WANTS NEXT OUTAGE 5. ☐ WANTS OUTAGE INDEPENDENT 6. ☐ DEFER PRIORITIZING

7. ☐ OTHER _____

ASSIGN TO: ☐ NUCLEAR ENGINEERING ☐ TECHNICAL SUPPORT WITH NUCLEAR ENG. SUPPORT

_____ OR _____ _____
STATION SUPERINTENDENT GENERAL SUPERINTENDENT DATE

## 3.0 TRANSMITTAL

3.1 UPDATE MODIFICATION LOG ☐ DISAPPROVED ☐ REVIEW REQUESTED ON _____
DATE

☐ TRANSMIT MODIFICATION REQUEST TO DESIGN GROUP

SENT TO _____ _____ _____ _____
NAME TITLE MOD. COORDINATOR DATE

3.2 CONCUR ON ASSIGNMENT AND PRIORITY GROUP. _____ _____
MANAGER DESIGN ENGINEERING DATE

3.3 INITIATE WORK TRACKING DATA FILE _____ _____
MOD. COORDINATOR DATE

DISTRIBUTION: PART 1 (WHITE) SITE FILE; PART 2 (YELLOW) ORIGINATOR; PART 3 (PINK) @ STEP 3.2 ENGR. MOD. GRP.; PART 4 (GROD.) @ STEP 3.1 MOD. COORD.

## APPENDIX 2

## MODIFICATION LOG

This is a machine record to be maintained by the Modification Engineer. The data for each modification should be maintained on a single line or set of contiguous lines. The data columns may be as listed. Abbreviations may be used on the computer printout.

| Column No. | Heading |
|---|---|
| 1. | Request Number |
| 2. | Modification Title |
| 3. | Request date |
| 4. | Approved/Disapproved, Date |
| 5. | Assigned to Engineering/Tech. Services |
| 6. | Draft Mod. Work Request, Number, Date |
| 7. | Budget Request Date, if non-Project scope modification |
| 8. | Budget Approval Date, if non-Project scope modification |
| 9. | Major Order Number, if non-Project scope modification |
| 10. | Major Order Date, if non-Project scope modification |
| 11. | Conceptual Design<br>Schedule Complete Date |
| 12. | Conceptual Design &<br>Safety Analysis<br>Date SORC Review |
| 13. | Final Design<br>Safety Analysis<br>Date SORC Review |
| 14. | Deliver Design to Site<br>Schedule/Actual Date |
| 15. | Start Installation<br>Schedule/Actual Date |
| 16. | Complete Installation<br>Schedule/Actual Date |
| 17. | Acceptance for Operation<br>Schedule/Actual Date |

## APPENDIX 3

## FUNCTIONAL SPECIFICATION

## FORM INSTRUCTIONS

1. Enter Modification Title.

2. Enter Modification Control Number.

3. Enter modification description.

4. Enter system specifications.

5. Enter quality assurance requirements.

6. Prepare safety evaluation and attach. The safety evaluation may be prepared by Nuc. Licensing.

7. Include any attachments as required by engineering procedures. Additional sheets shall be attached, if required. The Responsible Design Engineer shall attach calculations, analysis, drawings, as applicable.

8. The Responsible Design Engineer signs that he has prepared the specification.

9. Lead Modification Engineer signs off that the engineering review has been completed and includes any attachments as required.

   The completed form with attachments shall be reviewed by SORC per AP-3.4.1 using modification review form.

## APPENDIX 3

## FUNCTIONAL SPECIFICATION

1. Modification Title: _____

2. Modification Control No. N_ Y_ _ M_ _ _ _ LE_ _ _ _

3. Detailed Description: _____

4. System Specification: _____

5. Quality Requirements: _____

6. Safety Evaluation Prepared and Attached. Site Eng_____ Date_____

7. Attachments:

8. Prepared by: Design Eng_____ Date_____

9. Eng Review Completed: Lead Mod. Eng_____ Date_____

## APPENDIX 4

## MATERIAL AND EQUIPMENT

## CONTROL LOG

(See Procedure Sections 5.3.9 and 5.5.8.1)

| Column No. | Heading |
|---|---|
| 1. | System Number |
| 2. | Equipment Piece Number |
| 3. | Name of Equipment or Material |
| 4. | Quantity |
| 5. | Requisition Number |
| 6. | Date of Requisition |
| 7. | Purchase Order Number |
| 8. | Date of Purchase Order |
| 9. | Delivery Date Requested |
| 10. | Delivery Date Promised |
| 11. | Date Received |
| 12. | Materials Management Receipt Inspection, OK, Reject-Return or Hold |
| 13. | Quality Assurance Inspection |
| 14. | Material Issue Number |
| 15. | Date of Material Issue |
| 16. | Quantity on Material Issue |
| 17. | Date Installed |
| 18. | Quantity Installed |

The Material Control record should show the disposition of all material purchased by additional records of installation if necessary.

| | |
|---|---|
| 19. | Date returned to stores |
| 20. | Quantity returned to stores |

## APPENDIX 5

## INSTALLATION PLAN

## FORM INSTRUCTIONS

1.1 Enter Modification Title.

1.2 Enter modification control number and design transmittal.

1.3 Engineering should prepare the installation plan by completing Steps 1.5, 1.6, 1.7. Engineering should blacken in checked column where required.

1.4 Concurrence should be obtained by engineering on the original issue from QA and the installer.

1.5 Indicate any references specifically applicable to the plan.

1.6 Indicate the recommended sequence number of the activity. Sequence may be changed to adapt to field conditions.

1.7 Enter a description of the activity to be completed.

1.8 Enter any procedures, drawings, specifications, and/or technical manuals required to complete the activity.

1.9 Engineering should blacken in the first column where a signoff is required. When the activities are completed, the Installer and Q.A. should sign off next to the blackened boxes.

NOTE: This form may be revised by the Installer or QA after it is issued with Engineering concurrence.

APPE[redacted]5 1.1 Mod. Title[redacted] Sheet ____, C[redacted]
INST[redacted]TION PLAN 1.2 Mod. Cont. No. N__Y__M[redacted] DT[redacted]
1.3 Prepared By: _____ 1.4 Concurrence QA _____/_____ Installer _____/_____
1.5 Reference: _____

| 1.6 SEQ NO. | 1.7 ACTIVITY DESCRIPTION | 1.8 REFERENCE | 1.9 FINAL ACCEPTANCE INSTALLER SIG/DATE | 1.9 FINAL ACCEPTANCE Q.A. SIG/DATE |
|---|---|---|---|---|
| | | | | |

## APPENDIX 6

## INSPECTION PLAN

## FORM INSTRUCTIONS

1.1 Enter modification title.

1.2 Enter modification control number and design transmittal.

1.3 Engineering should prepare the installation plan by completing steps 1.5 and entering the components in 1.6.

1.4 Concurrence should be obtained by engineering on the original issue from QA and the installer.

1.5 Indicate any references specifically applicable to the plan.

1.6 Enter the inspection requirements in the column below the heading. Inspection requirements should be completed and the form included as part of the applicable site procedure or contract specification, where applicable. This should be determined by the installer for site procedures and the design engineer for contracts.

1.7 Enter the component identification number in the headings above the columns.

1.8 Engineering should blacken in the first column under the check where a signoff is required. When the inspections are completed, the Installer or Q.A. should sign off next to the blackened box.

NOTE:

1) This form (or equivalent forms included in site installation procedures or contract specifications) may be completed to include inspection requirements and included in site procedures at the determination of the installer.

2) This form may be revised by the Installer or QA after it is issued with Engineering concurrence.

3) This form should be prepared by engineering when included in a site procedure and the site procedure is applicable to the modification being installed.

4) This form should be prepared by the Design Engineer and included in contracts when applicable.

APPE[redacted] 6 1.1 Mod. Title _____ Sheet ____, Cont'd on [redacted]

Q.A. [redacted]PECTION PLAN 1.2 Mod. Cont. No. N Y [redacted] L F ____ DT _____

1.3 Prepared By: _____ / _____ 1.4 Concurrence: QA _____ / _____ Installer _____ / _____

1.5 Reference: _____

1.6 Component Identification Numbers

| 1.6 Inspection Requirements | 1.8 Installer SIG/DATE | Q.C. SIG/DATE | Installer SIG/DATE | Q.C. SIG/DATE | Installer SIG/DATE | Q.C. SIG/DATE | Installer SIG/DATE | Q.C. SIG/DATE |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

## APPENDIX 7

## MODIFICATION WORK REQUEST

## FORM INSTRUCTIONS

### Heading

Unit — Record the Station Unit Number

Date — Date the Modification Coordinator first Assigns a MWR to indicate a job number and Modification Request Number, Modification Control Number - Unit, Year, Major Order, Log Number. MWR Job. No. - This is the number assigned to the Modification Request by the computer.

1.1 The title of the Modification as contained on the Modification Request.

1.2 The Modification as contained on the Modification Request.

1.3 Record the account number as contained on the Major Order and the date of the Major Order. (The Account Number contains the Major Order Number).

1.4 Check the Safety and Quality Classification. Record the documentation reference of the final design safety evaluation and the ALARA evaluation.

1.5 Note the SORC approval or disapproval of the Preliminary/Final Design.

1.6 If a contractor is to perform the work, list the contractor, purchase order, and requisitions as appropriate.

1.7 Operations Planning issues the MWR to the applicable department or Construction Services for contractors. Remove Part 4.

2.1 This is the name of the supervisor receiving the MWR for schedule planning along with an Installation Plan from Engineering.

2.2 Enter the design transmittal number and indicate other reference documentation attached.

2.3 List the procedures or attach a procedure list.

2.4 Check the reason if any that the MWR is being held for later implementation.

2.5 Check if the ALARA review of the installation plan is completed and the plan approved for ALARA or if the MWR is on hold for ALARA. List the ALARA coordinators name approving or holding.

2.6 Check if the installation plan review for Quality is complete and the plan approve for installation or on hold. Check if the OK received by telephone. List the QA supervisor's name approving or holding. Remove Part 3 and forward copy to the Modification Engineer.

3.1 Name the person assigned the MWR for installation and the date assigned.

3.2 Give the Scheduled start date and the dates the QA department, the ALARA group, and the SSS were notified when the work would start.

3.3 When the work called for on the MWR is complete, check off by category that all the documentation required to attest that the modification was installed as engineered is assembled and attached to the MWR at least by reference. Check also that complete lists of safety Markups, RWPs and QCIRs are also attached.

3.4 Enter any remarks applicable to the completed modification.

3.5 The Installer signs that the work called for on the MWR and in the attached Installation Plan and Schedule is complete as directed.

4.1 The immediate or Department Supervisor signs that he has reviewed the MWR package, inspected the work, and is satisfied that the MWR has been completed as required.

4.2 An authorized Quality Assurance representative signs that an inspection of the documentation package is completed and that the portion of the modification called for on this MWR is completed as required.

4.3 The Station Shift Supervisor or authorized Technical Department Supervisor signs that he accepts this portion of the modification for testing and final inspection prior to operation.

4.4 The Operations Planning Department logs out the MWR. Remove Part 2 and forward the copy to the Eng. Mod. Group.

NIAGARA MOHAWK | NINE MILE POINT NUCLEAR STATION | **MODIFICATION WORK REQUEST**

| MOD. CONTROL NO. | MWR JOB NUMBER | UNIT |
|---|---|---|
| Y M LA | | ☐1 ☐2 |

1.1 MODIFICATION TITLE _____

1.2 DESCRIPTION _____

1.3 ACCOUNT

| ACCOUNT | SUB LEDGER | ACTIVITY/ ORDER | COST CENTER | BUD CAT | COST COMP | LOCATION | SUB ACCT | PROJ COST ACCT NUM |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |

1.4 MODIFICATION IS ☐ SAFETY RELATED ☐ NON SAFETY RELATED QC CLASS ☐I ☐II ☐III ☐EQ

FINAL SAFETY EVALUATION REFERENCE N Y M LE

ALARA DESIGN EVALUATION REFERENCE N Y M LE

1.5 SORC REVIEW OF FINAL DESIGN ☐ ACCEPTED ☐ DISAPPROVED DATE _____

1.6 CONTRACTOR _____ P.O. _____ REQ. _____

1.7 ISSUED BY SITE PLANNING _____ DATE _____

---

2.1 RECEIVED BY _____ DATE _____

2.2 REFERENCE DOCUMENTATION ATTACHED:

a. ☐ DESIGN TRANSMITTAL N Y M LF DT _____

b. ☐ INSTALLATION PLAN c. ☐ M & E LIST d. ☐ DRAWING LIST e. ☐ OTHER ATTACHMENTS _____

2.3 PROCEDURE LIST: ☐ ATTACHED ☐ NA

_____ / _____ / _____ / _____ / _____ / _____ / _____ / _____

2.4 ON HOLD DUE TO: ☐ PARTS ☐ SORC REVIEW ☐ ENGINEERING ☐ PLANT SHUTDOWN REQ.

2.5 ALARA REVIEW ☐ YES ☐ HOLD ALARA COORDINATOR _____ DATE _____

2.6 QA REVIEW _____ DATE _____

---

3.1 ASSIGNED TO _____ DATE _____

3.2 SCHEDULED START DATE _____ QA NOTIFIED DATE _____ SSS NOTIFIED DATE _____ ALARA NOTIFIED DATE _____

3.3 ATTACHED COMPLETED DOCUMENTATION:

a. ☐ INSTALLATION PLAN
b. ☐ PROCEDURES
c. ☐ MATERIAL ISSUES
d. ☐ LIST OF REMOVED EQUIPMENT
e. ☐ INSPECTION REPORTS
f. ☐ NARRATIVE SUMMARY
g. ☐ LIST OF MARKUPS
h. ☐ LIST OF RWP'S
i. ☐ LIST OF QIR'S
j. ☐ TRANSMITTAL FOR SIGNED PRINTS
k. ☐ OTHER ATTACHMENTS: _____

3.4 REMARKS _____

3.5 WORK REQUEST TASKS COMPLETED BY _____ DATE _____

---

4.1 SUPERVISOR REVIEW BY _____ DATE _____

4.2 QA REVIEW OF DOCUMENT PACKAGE _____ DATE _____

4.3 ACCEPTED FOR FINAL INSPECTION AND TEST BY _____ ☐ SSS ☐ SUPV DATE _____

4.4 LOGGED COMP/CLOSED BY SITE PLANNING _____ DATE _____

DISTRIBUTION: PART 1 (WHITE) SITE FILE; PART 2 (YELLOW) ENGR. MOD. GROUP; PART 3 (PINK) @ STEP 2.6 MOD. COORD.; PART 4 (G'ROD.) @ STEP 1.7 MOD. COORD.

## APPENDIX 8

## MODIFICATION OPERABILITY ACCEPTANCE

## FORM INSTRUCTIONS

1.1 Enter modification title

1.2 Enter mod control no. -

2.1 Attach a copy of the applicable safety evaluations (for Ops Supervisor information) and check that they have been SORC reviewed. Reference Site Document Log for APN-3.4.1 documents.

2.2 Review the site document log and enter the design transmittals installed for this modification.

2.3 Review the site document log for the required test for this modification and check that they have been satisfactorily completed.

2.4 Enter any operating procedures affected by or required for this modification.

2.5 Contact Nuclear Licensing and enter any technical specifications affected by or required for this modification.

2.6 Indicate any comments significant to the completion review.

2.7/2.8 Site Contact or Supervisor and Quality Assurance review the completion form.

3.1 Operations Supervisor accepts modification

3.2 Document Control contacts Engineering and updates operating drawings per updated Engineering Drawing List.

3.3 Office Supervisor notifies Modification Engineer of need to initiate property in service report. Modification Engineer signs when completed.

3.4 Acceptance form is closed on site document log.

Distribution: Original placed in modification file. Copies distributed to Station Superintendent, Eng. Planning, Project Engineer and Lead Modification Engineer. Additional distributions to be made by Site and Engineering Modification Group as requested.

NIAGARA MOHAWK

## 1.0 HEADING

1.1 MODIFICATION TITLE

1.2 MOD. CONTROL NO.

N Y M . LK SITE PLANNING DATE

## 2.0 COMPLETION REVIEW

2.1 THE ATTACHED SAFETY EVALUATION(S) FOR THIS MODIFICATION ARE SORC APPROVED. ☐

2.2 THE SITE DOCUMENT LOG HAS BEEN REVIEWED AND THE FOLLOWING DESIGN TRANSMITTALS HAVE BEEN INSTALLED. ☐ ATTACHED

1. N Y M LF DT _____
2. N Y M LF DT _____
3. N Y M LF DT _____
4. N Y M LF DT _____
5. N Y M LF DT _____
6. N Y M LF DT _____

2.3 THE FOLLOWING PREPARATIONAL TESTS, ACCEPTANCE TEST, OR OPERABILITY CHECKS HAVE BEEN SATISFACTORILY COMPLETED. THE PREOPERATIONAL TESTS ARE ACCEPTED BY THE STATION SUPERINTENDENT.

| NUMBER | TITLE |
|---|---|
| | |
| | |

2.4 THE FOLLOWING OPERATING PROCEDURES WERE REQUIRED, REVISED, OR ARE AFFECTED BY THIS MODIFICATION.

| NUMBER | TITLE |
|---|---|
| | |
| | |
| | |

2.5 THE FOLLOWING TECHNICAL SPECIFICATIONS WERE REQUIRED, REVISED, OR ARE AFFECTED BY THIS MODIFICATION.

| SECTION | DESCRIPTION |
|---|---|
| | |
| | |
| | |
| | |

2.6 COMMENTS

2.7 REVIEWED BY ☐ SITE CONTACT ☐ SUPV. DATE

2.8 Q.A. DATE ☐ NA

2.9 COMP. ON SITE DOC. LOG. SITE PLANNING DATE

## 3.0 ACCEPTANCE

3.1 ACCEPTED BY OPERATIONS SUPERVISOR DATE

3.2 OPERATING DRAWINGS UPDATED BY DOCUMENT CONTROL DATE

3.3 PROPERTY IN SERVICE REPORT COMPLETED. MOD. COORD. DATE

3.4 CLOSED ON SITE DOC. LOG. SITE PLANNING DATE

PART 1 (WHITE) SITE FILE; PART 2 (YELLOW) @ 2.3 ENGR. MOD. GRP.; PART 3 (PINK) @ 2.3 MOD. COORD.; PART 4 (GOLDENROD) 1.2 MOD. COORD.

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## APPENDIX 9

## MODIFICATION CLOSEOUT

## FORM INSTRUCTIONS

1.0 HEADING

1.1 Enter Modification title

1.2 Enter modification control number. The M digit shall be the major order if written.

1.3 Not applicable for AP-6.1.

1.4 Indicate if modification is closed due to it being canceled or modification control number reassigned.

1.5 Modification Engineer reviews form and distributes accordingly for closeout action.

2.0 CLOSEOUT ACTION

As each closeout action is completed or marked N/A for the subject modification, the responsible department should sign and complete and return to the Modification Engineer. On the original form, the Modification Engineer should print in the name of the person completing the action and initial and date. When all actions are completed the file should be closed.

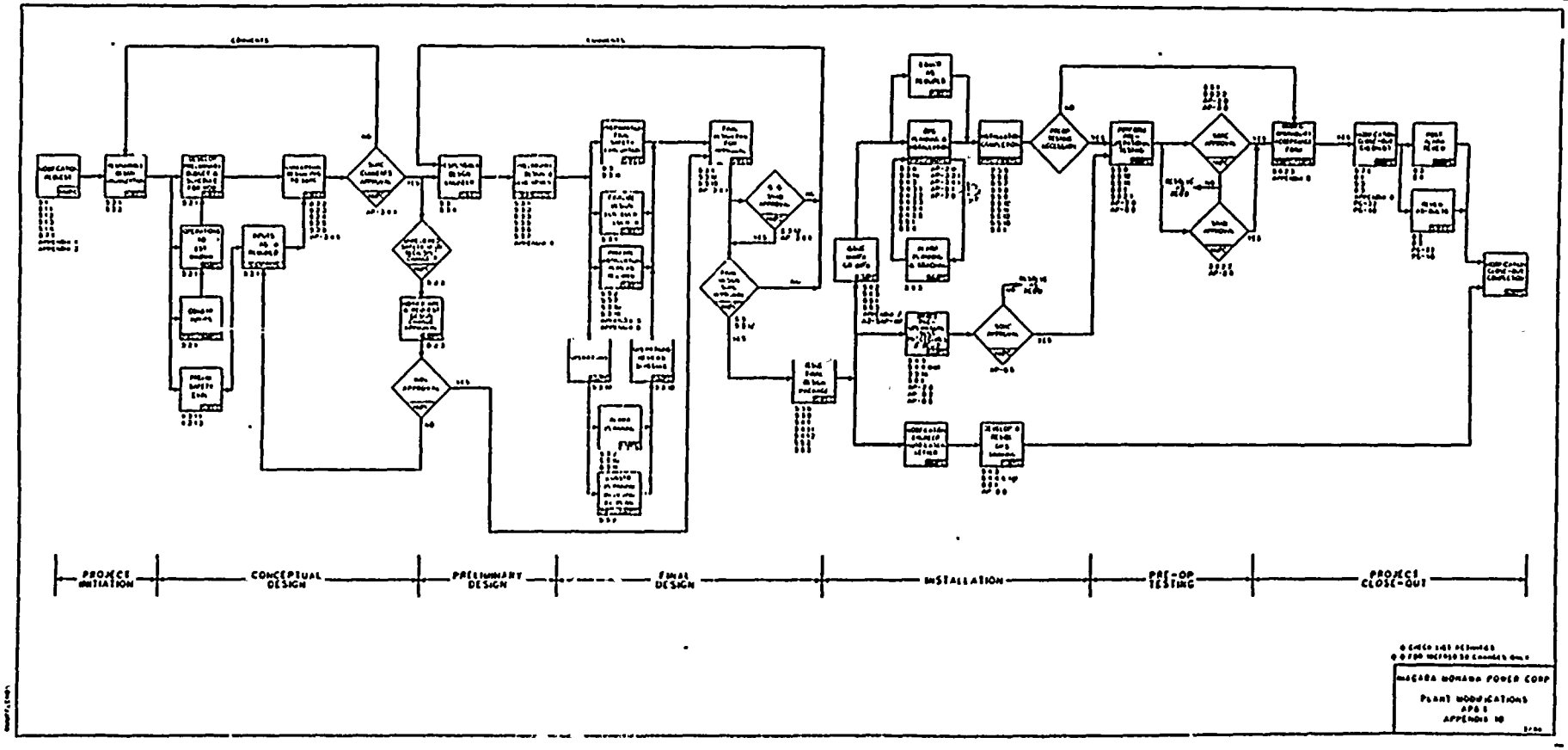
3.0 CLOSEOUT COMPLETION

3.1 The Modification Engineer closes the file for the modification and places in permanent plant files. Site document log and attachments should be attached to the modification closeout form if available.

3.2 QA reviews completed files.

3.3 File shall be placed in archives by document control. Modification Engineer should log that the modification is completed in Appendix 2.

APPENDIX 10


PROJECT INITIATION
CONCEPTUAL DESIGN
PRELIMINARY DESIGN
FINAL DESIGN
INSTALLATION
PRE-OP TESTING
PROJECT CLOSE-OUT