Enclosure #26

NINE MILE POINT NUCLEAR STATION

INSTRUMENT DEPARTMENT PROCEDURE

PROCEDURE NO. S-IDP-PO

# OUTLINE FOR I&C PROCEDURES

| APPROVALS | SIGNATURES | DATE AND INITIALS REVISION 6 | REVISION 7 | REVISION 8 |
|---|---|---|---|---|
| Instrument & Control Supervisor R. E. Coon | R.E. Coon | REC 2-10-86 | | |
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FOR INFORMATION ONLY

## Summary of Pages

Revision 6 (Effective 2/10/86 )

| Pages | Date |
|---|---|
| 1-7 | February 6, 1986 |

NIAGARA MOHAWK POWER CORPORATION

THIS PROCEDURE NOT TO BE USED AFTER FEBRUARY 1990 SUBJECT TO PERIODIC REVIEW.

S-IDP-PO

# OUTLINE FOR I&C PROCEDURES

## A.0 PURPOSE

This document is designed to explain the scheme of procedures used by the Instrument and Control Department at the Nine Mile Point Site. Further, it provides guidance for revision and generation of desirable departmental procedures.

## B.0 REFERENCE

B.1 AP-1.0 "Procedure for Administrative Control"

B.2 AP-2.0 "Production & Control of Procedures"

B.3 AP-8.1 "Procedure for Service and preventative Maintenance"

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## C.0 PROCEDURE CATEGORIES

ISP - INSTRUMENT SURVEILLANCE PROCEDURE

Used to comply with stated Technical Specification requirements.

Example: Surveillance Testing, etc.
Procedure has instrument set point limits and Occurrence.
Report requirements. This category has step verification and requires SORC approval.

ICP - INSTRUMENT CALIBRATION PROCEDURE

Used to comply with implied Technical Specification requirements.

Example: Provides calibration of equipment which is used by some other department to meet a Tech. Spec. requirement. This category has step verification and requires SORC approval.

IMP - INSTRUMENT MAINTENANCE PROCEDURE

Used generally to provide some repair function or a function to avoid device failure. These procedures should be generic in nature when possible. This category usually requires SORC approval.

C.0 PROCEDURE CATEGORIES (Cont'd)

IP - INSTRUMENT PROCEDURE

Used as a departmental procedure for calibrating non-safety related devices. This procedure category will be generally used for Balance of Plant (B.O.P.) instrumentation. This category normally will not require SORC approval and is intended to be generic in nature.

PROCEDURE NUMBER SYSTEM

Whenever possible procedure numbers are to be identified by Plant System number. Example N1-ICP-W-60, N1 indicates Unit 1 (N2 indicates Unit 2 and S indicates a Site Procedure); ICP is the calibration category. The W is the frequency that the procedure should be performed. 6

W = Weekly - at least once per 7 days
M = Monthly - at least once per 31 days
Q = Quarterly - at least once per 92 days
A = Annual - at least once per 366 days
SA = Semiannual - at least once per 184 days
C = Cycle - once per refueling cycle

The 60 is the plant system number for Emergency Cooling. The procedure title is Emergency Cooling Level Control. The procedure number may bear a numerical or alphabetical suffix to provide for additional procedure requirement within the same system.

PROPOSED CHANGES

Require only SORC approval-review sheet to be attached to a copy of the procedure with proposed revision.

TEMPORARY CHANGES

Requires a Procedure Change Notice attached to copy of the procedure which indicates the changes and identifies the approving SSS and Supervisor. This procedure is to be submitted to the Unit I&C Supervisor by the next business day following implementation. The used procedure copy requires acknowledgement for each change or group of changes of the SSS and I&C Supervisor. See AP-2.0 and AP-1.0. 6

## D.0 PROCEDURE FORMAT

Items under this section are identified by number, the same as in existing documents. A ✓ is provided as a review mechanism to a person when generating I&C procedures.

TITLE PAGE

The procedure name and number must appear at the top. For ISP's, ICP's, and IMP's, the procedure number should be the same as the system involved.

For SORC approval three signatures are required.

1. Site I&C Supervisor
2. Station Superintendent
3. Site Superintendent

Non-SORC approved procedures require only two signatures (items 1 and 2 above).

Site procedures require the Site I&C Supervisor, Unit 1 Station Superintendent, and the Unit 2 Station Superintendents signatures. 6

Below the approval signatures a REVISION STATEMENT is added indicating the nature of the revision and pages affected. If the procedure number is changed it must identify the procedure which is superseded.

At the lower right corner of the title page, a statement indicating expiration is to be made. DO NOT USE AFTER... for SORC'ed procedures 2 years and Non-SORC'ed procedures 4 years from date of issue.

## 1.0 PURPOSE

This section identifies the total accomplishment intended by the procedure. The intended usage frequency should be noted here. ✓_____

## 2.0 REFERENCES (As Applicable)

Technical Specifications - paragraph only, not pages.
Niagara Mohawk Drawings - Index Number, Dwg. No. and description of title including, as appropriate.
Electrical drawings and tank outlines, Manufacturer's Bulletins.
Attached figures and sketches, examples:

1) Illustrations of tanks showing relation of instrumentation and meter scales.
2) Curves of volume vs level of tanks indicating Tech. Spec. requirements and alarm valves.
3) Arrangement of test equipment or block diagram of equipment. ✓_____

3.0 PREREQUISITES

Indicate actions to be done prior to test, such as:
Establish communications, state jack numbers.
Obtain RWP - where necessary.
Markups - where there is any question of safety.
Time frame - when can the procedure be used.
Conditions which must prevail.
State precautions. ✓_____

4.0 TEST EQUIPMENT

List items which are of major importance with equivalent options when possible. Items such as hand tools, tubing, etc. normally should not be listed unless they are of special significance. ✓_____

5.0 PROCEDURE

Ingredients in this outline whenever possible should be handled as prescribed. Deviations may be taken as necessary. Most importantly, the work must be able to be done as written with efficiency in mind.

The procedure body should be subdivided by major sections, i.e. 5.1, 5.2, 5.3 etc. are to be titled with capital letters, but not underlined. Subsections 5.1.1, 5.1.2, 5.1.3, etc. are to be used as necessary to accomplish the major section task in a smooth manner.

A constant level of awareness must be kept to assure that the procedure flows smoothly, is easy to use, and review. Care in use of words will reduce ambiguity and keep bulk to a minimum. It is not desirable to state detailed work functions which are obviously within the capability of the technician. "NOTES" and "CAUTIONS" should be inserted at appropriate places to emphasize awareness of problem areas.

5.1 PRELIMINARIES

5.1.1 First obtain permission from SSS for procedure use. The procedure body and/or data sheet should identify key consequences in capital letters i.e. scram, jumpers required to Block..., sw position, etc. Discuss such consequences and request any desired markups. Obtained signature and date from the SSS. ✓_____ 6

EXAMPLE: In capital letters, enter the major cautions which may effect plant operation.

PLANT IMPACT: *THIS PROCEDURE WILL CAUSE 1/2 SCRAMS
*THE MODE SW MUST BE IN SHUTDOWN
*POSSIBLE CLOSURE OF OFFGAS VALVE

5.1.2 Notify SCO of commencement (obtain his initials on the data sheet). ✓ _____

5.1.3 Before work begins, record the as-found end-result-indication for operating system. (i.e. Recorder indication, panel meter indication.) ✓ _____

5.1.4 Record the test equipment information with some awareness of calibration tenure. ✓ _____

5.2 WORK EFFORT

This section should be subdivided and handled in outline form. Each section should receive the next identifying number 5.2.1, 5.2.2, 5.2.3, etc. Subsections may be identified numerically or alphabetically ("a", "b", "c", etc.)

EXAMPLES:

5.2 POWER SUPPLY CHECK
- a) ± 15 volt supply
- b) Hi voltage supply

5.3 AMPLIFIER ZERO
- a) zero
- b) gain

5.4 COMPUTER CORRELATION
- a) alarm
- b) analog display

5.2.1 At the transmitter (located at elev...) valve out, vent and drain. ✓ _____

5.2.2 Connect the test equipment and apply signal values per data table. Record the data and adjust as necessary. ✓ _____

5.2.3 DATA TABLE/DATA SHEET

For record retention and retrieval purposes, the data sheet (when used) must provide a space for the equipment piece number of the primary device (transmitter) and the specific device within, as applicable. NMPC Form #313-169R may be used.

A. Cover range of instrument(s) involved ✓ _____

B. Specify acceptable tolerance (s) and equivalent values where applicable. ✓ _____

C. Use values which are obtainable for equipment involved. ✓ _____

5.2.3 DATA TABLE/DATA SHEET (Cont'd)

D. For M&TE instruments, if an instrument is a multi-range device, record the range used to obtain data. ✓ _____

E. Comply with Tech. Specs. if applicable. ✓ _____

F. Whenever possible use transmitter output signals & values as inputs to other loop devices. ✓ _____

G. When establishing calibration values for flow instruments, output from the devices should be linear to accomodate meter scales. ✓ _____

5.2.4 Use jumper log for all lifted leads, blocked contacts or jumpers. ✓ _____

5.2.5 Verify set point/trip point operation stating < or > inc./dec./signal. Verbiage regarding set point values should and should be as follows:

a) "Required" - for Tech. Spec. Limits if exceeded Occurrence Report is required. Example: Tech. Spec. Limit > 53" $H_2O$), guide valve 55 ± 1" $H_2O$, +
b) "Guide" - A value with a given tolerance which is conservative of the Tech. Spec. Value.
c) "Desired" - No Tech. Spec. requirement, but value (±) tolerance is to be stated. ✓ _____

5.2.6 Scrutinize sensor initiation functions, computer generated alarm ID's, computer printout statement(s) and annunciator activations. ✓ _____

5.3 RETURN TO SERVICE

5.3.1 Return equipment to service, i.e. valve in, remove jumpers, clear markups. ✓ _____

5.3.2 Attach a cal sticker on each item calibrated; use checkoff for this for assurance. ✓ _____

5.3.3 Install lead-wire seals & seal No's where applicable and install caps/plugs on test connections. Replace and secure covers, doors, etc. ✓ _____

5.3.4 Obtain an independent verification of return to service by a qualified person, by Name: _____ ✓ _____

This section should identify or list requirements to be verified and a "✓" for each item. ✓ _____

5.3.5 Record as-left end result operating indication. ✓ _____

5.3.6 Post maintenance testing or verification is required on Class 1, Safety related, and Environmentally qualified equipment.

5.3.7 Post maintenance testing or verification should be used on B.O.P. whenever possible.

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5.3.8 Notify SSS and CSO of completion, obtain their initials for this action. ✓ _____

5.3.9 Provide for signature and date of the technician, name(s) of assisting persons reviewing chief tech. and reviewing supervisor(s). ✓ _____

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## 6.0 ACCEPTANCE CRITERIA

A statement indicating what results are necessary for acceptance. This may be accomplished by various methods. Examples are:

a) All sections of the procedure completed and found or adjusted to be within the stated limits within such steps.

b) A mechanism to handle deviations of (a) above. Example: the Occurrence Report, Work Request, etc.

Limitations necessary which have not been included previously. Example: equipment design criteria