Peter Zarakas
Vice President

CENTRAL FILES

Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, NY 10003
Telephone (212) 460-3000

June 22, 1979

Re: Indian Point Unit No. 2
Docket No. 50-247

U.S. Nuclear Regulatory Commission
ATTN: Mr. Boyce H. Grier, Director
Region 1
Office of Inspection & Enforcement
631 Park Avenue
King of Prussia, Pennsylvania 19406

Dear Mr. Grier:

Enclosed is a supplement to our April 26, 1979 response to IE Bulletin 79-06A.

Should you have any questions regarding our supplemental response and the actions we have taken or are planning to take, please contact this office.

Sincerely,

Peter Zarakas
Vice President

cc: U.S. Nuclear Regulatory Commission
Office of Inspection & Enforcement
Division of Reactor Operations Inspection
Washington, DC 20555

Mr. T. Rebelowski, Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 38
Buchanan, NY 10511

Mr. Leonard N. Olshan, Project Manager
Operating Reactors Branch No. 1
Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, DC 20555

ADD CCP

Supplemental Responses To

IE Bulletin No, 79-06A and 79-06A (Revision 1)

Consolidated Edison Company of New York, Inc.

June 22, 1979

Bulletin Item No. 2:

Review the actions required by your operating procedures for coping with transients and accidents, with particular attention to:

a. Recognition of the possibility of forming voids in the primary coolant system large enough to compromise the core cooling capability especially natural circulation capability.

b. Operator action required to prevent the formation of such voids.

c. Operator action required to enhance core cooling in the event such voids are formed.

Supplemental Response:

Our previous response discussed the results of prompt reviews conducted by both Con Edison and Westinghouse. Subsequent to its submittal a group of owners of operating Westinghouse reactors was formed to address on a generic basis, several of the issues raised by the investigations into the TMI-2 incident. Con Edison is participating in this group effort. One of the issues being addressed is appropriate procedures for dealing with transient and accident conditions. The Regulatory Staff will be kept fully informed of these generic efforts, and Con Edison will implement changes to procedures, as applicable to our facility, after proper reviews of the generic results. Our station personnel will be kept informed of the efforts underway by Con Edison and the owners group.

The current status of Con Edison supplemental efforts relating to this Bulletin Item are as follows:

1) An engineering study is underway for means to provide additional remote Reactor Coolant System Venting. The focus of this study is to investigate the feasibility of remote venting capability from the reactor vessel head to augment that currently available from the pressurizer gas space.

2) Con Edison is scheduling for this year's refueling outage, installation of equipment and calibration testing of equipment to provide unambiguous reactor vessel level indication. This effort, which must be considered as R&D at this stage, will utilize gamma radiation monitoring equipment. Con Edison is working closely with Westinghouse in this effort.

3) We have determined that the instrumentation listed below is available to provide useful information whicy may aid in detecting void formation. Specific procedural changes to require their use should await the completion of the generic reviews to assure that reliance on these instruments will not provide misleading or ambiguous information.

   a) Core exit thermocouples

   b) Hot leg RTDs

   c) Direct RCS flow measurement

   d) EXCORE Detectors

   e) Metal impact monitoring system

   f) Reactor Coolant Pump motor amperage

4. Con Edison is studying the effect of post incident secondary side pressure reduction to aid in enhancement of primary system subcooling and natural circulation capability. If it is determined to be beneficial, emergency procedures will be instituted to accomplish such a reduction in appropriate situations.

Bulletin Item No. 7:

Review the action directed by the operating procedures and training instructions to ensure that:

a) Operators do not override automatic actions of engineered safety features, unless continued operation of engineered safety features will result in unsafe plant conditions. For example if continued operation of engineering safety features would threathen reactor vessel integrity then HPI should be secured.

b) Operating procedures currently, or are revised to specify that if high pressure injection (HPI) system has been automatically actuated because of low pressure condition, it must remain in operation until either:

(1) Both low pressure injection (LPI) pumps are in operation and flowing for 20 minutes or longer; at a rate which would assure stable plant behavior; or

(2) The HPI system has been in operation for 20 minutes, and all hot and cold leg temperatures are at least 50 degrees below the saturation temperature for the existing RCS pressure. If 50 degrees subcooling cannot be maintained after HPI cutoff, that HPI shall be reactivated. The degree of subcooling beyound 50 degrees F and the length of the HPI is in operation shall be limited by the pressure/temperature considerations for the vessel intregity.

c) Operating procedures currently or are revised, to specify that, in the event of HPI initiation with reactor coolant pump (RCP) operating, at least one RCP shall be remain for two loop plants and at least two RCP's shall remain operating for 3 or 4 loop plants as long as the pump(s) is providing forced flow.

d) Operators are provided additional information and instructions to not rely upon pressurizer level indication alone, but to also examine pressurizer pressure and other plant parameter indications in evaluating plant conditions, e.g., water inventory in the reactor primary system.

Supplemental Response:

As discussed in our supplemental response to Bulletin Item 2, an owners group has been formed to address on a generic basis, several of the issues raised by the investigations into the TMI-2 incident. It is expected that the results of the work being performed by the owners group will provide additional information and/or guidance for means to enhance core cooling (such as whether or not operate Reactor Coolant Pumps) during and after transient and accident conditions, and for appropriate procedures for dealing with transient and accident conditions.

Until the results of the generic reviews are available, the following points of clarification of our previous response are provided:

1) Con Edison recognizes that forced flow (operation of Reactor Coolant Pumps) is the preferred and best operating mode for many of the postulated post incident conditions. Our intent is to maintain the Reactor Coolant Pumps running under such conditions. There are, however, certain limited conditions (listed below) in which operation of the reactor coolant pumps is not possible, or where current information suggests that continued operation of the pumps is not providing significant forced flow, such conditions might be unsafe and could also lead to degredation of core cooling capability. Natural circulation is available and shown to be acceptable for these cases. Current Westinghouse advice calls tripping the Reactor Coolant Pumps under these limited conditions.

   a) Loss of offsite power and unit trip (loss of power to pump motors).

   b) Coincidence of loss of coolant accident, isolation of pump cooling auxiliaries, and RCS at or approaching saturation conditions. (Loss of cooling and seal flow could cause seal failure and increased RCS leakage; operation at saturated conditions could increase void formation at the pumps).

   c) Steam line break accident (Tripping of the Reactor Coolant Pumps could reduce the cooldown transient).

2) We believe that further elaboration of our response concerning termination of automatically actuated safety features will clarify our intent.

The diversity in plant specific designs for safety systems precludes the complete adherence to all of the general guidelines suggested in this bulletin item. The Indian Point 2 HPI system has a maximum discharge pressure at least 500 psi below RCS operating pressure. In addition, the pump characteristics are such that significant flow is not produced near the maximum discharge pressure. Under several postulated accident scenarios, RCS pressure may remain high enough that the HPI pumps are running in a low flow recirculation mode (This is also the case for spurious SI initiation during operation). Operation in such a mode for the 20 minute period suggested by the bulletin exceeds the manufacturers recommended 15 minute time limit for operation in this mode.

For a large break LOCA sequence, all safeguards injections pumps are started automatically (3 HPI, 2LPI, 2 containment spray). At the point in time when low level is reached in the refueling water storage tank (suction for the above pumps), injection is terminated and cooling is switched to the recirculation mode (suction from in containment sumps). The prefered mode of recirculation is internal to containment to preclude pumping of radioactive fluids outside containment post-accident.

Under certain conditions, this switchover to recirculation will occur in less than 20 minutes, requiring that the HPI and LPI pumps be shutdown with cooling continuing with the internal recirculation pumps. Our procedures will therefore assure operation of SI pumps consistent with the basis for Bulletin Items 7a) and b). Our intent is to maintain safeguards equipment operating post-accident in a manner consistent with preferred modes of core cooling, and in a manner that does not degrade necessary performance.

Bulletin Item 8

Review all safety-related valved positions, positioning requirements and positive controls to assure that valves remain positioned (open or closed) in a manner to ensure that proper operation of engineered safety features. Also review related procedures, such as those for maintenance, testing, plant and system startup, and supervisory periodic (e.g., daily/shift checks) surveillance to ensure that such valves are returned to their correct positions following necessary manipulations and are maintained in their proper positions during all operational modes.

Supplemental Response :

In our previous response, we stated that safety-related valves located inside containment have continous indication of position in the control room. In order to clarify this response, it should be noted that the position indication referred to is for those valves with remote positioning capability. Other valves, such as manual valves for maintenance during shutdown, are located in systems inside containment and are positioned under administrative controls.

The administrative controls for certain valves in the plant require control with locks. For such valves, plant procedures require that they be subjected to periodic surveillance of position and the locks.

Bulletin Item 9;

Review your oprating modes and procedures for all systems designed to transfer potentially radioactive gases and liquids out of the primary containment to assure that undersired pumping, venting or other release of radioactive liquids and gasses will not occur inadvertently.

In particular, ensure that such an occurrence would not be caused by the resetting of engineered safety features instrumentation. List all such systems and indicate:

a) Whether interlocks exists to prevent transfer when high radiation indication exists.

b) Whether such systems are isolated by the containment isolation signal.

c) The basis on which continued operability of the above features is assured.

Supplemental Response:

Our previous response included, but did not specifically highlight the containment sump line 31. Line 31 is shown on figure 5.2-13 in Attachment III to our previous response. The isolation valves in this line are automatically closed on a containment phase A isolation signal. This signal is automatically initiated by SI. Resetting of SI will not reset Phase A isolation. This must be done separately. Subsequent resetting of Phase A isolation will not cause transfer of radioactive fluids out of the containment sump. The motor control center (MCC) supplying power for the containment sump pumps is also stripped by the SI sequencing. This MCC must be renergized, the pumps started, and the isolation valves opened to the waste system. All of the above required actions are deliberate, and would not result upon resetting of SI or containment isolation.

Bulletin Item 10:

Review and modify as necessary your maintenance and test procedures to ensure that they require:

C. Explicit notification of involved reactor operational personnel whenever a safety-related system is removed from and returned to service.

Supplemental Responses:

In order to provide clarification of the level of authority for removing and returning systems to service and the method for handling system status information at the shift change, the following two procedures are attached:

1) Administrative Directive No. OAD-6 Rev. 2

"EQUIPMENT STATUS IDENTIFICATION"

2) Adminustratived Directive No. OAD-2 Rev. 1

"WATCH RELIEF".

Indian Point Station

Operations Subsection

Administrative Directive No. OAD-6 Rev. 2

Title: Equipment Status Identification

Intent: To establish measures for indicating operating status of structures, systems and components of the Nuclear Power Plant to prevent inadvertant operation. (Reference: 10CFR50, App. B)

Content

Reviewed By: Anthony A Vissichelli

Approved By: [signature] 9/5/74

"QA Document"

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1.0 Introduction

10CFR50, Appendix "B" states. "Measures shall also be established for indicating operating status of structures, systems and components of the Nuclear Power Plant, such as by tagging valves and switches, to prevent inadvertent operation."

CI240-1 translates this requirement as follows, "Indian Point Station shall establish procedures for indicating the status of inoperable equipment, such as by tagging valves and switches, to prevent inadvertent operation."

10CFR50, Appendix "B" and CI 240-1 only concern themselves with safety related equipment. This particular requirement to identify inoperable equipment is to be extended to include that non-safety related equipment whose inoperability either limits the Unit's electrical output or markedly decreases its reliability, and is to be implemented as follows:

2.0 Inoperable Equipment Identification

Immediately following discovery of a safety-related equuipment malfunction, a decision must be made as to the operability of that particular piece of equipment and the remainder of the component or system associated with that piece of equipment. This decision is the responsibility of the applicable Unit's Watch Foreman.

The following definition of the word "operable" is a direct quotation from the IP2 Technical Specifications and is to be applied to IP2 safety related equipment:

> "A system or component is operable when it is capable of performing its intended function within the required range."

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If a piece of safety related equipment cannot meet the applicable definition it must be declared inoperable.

Non-safety related equipment is to be judged against the more common definition of operable, i.e., desireable to use.

Following identification of a piece of equipment as inoperable, further judgement is required to determine the future course of plant operations. Technical specification limits as well as system limits must be considered.

WHEN A PIECE OF SAFEGUARDS OR REACTOR PROTECTION EQUIPMENT IS DECLARED INOPERABLE AND THE TECHNICAL SPECIFICATIONS PERMIT CONTINUED PLANT OPERATION IF CERTAIN REDUNDANT PIECES OF EQUIPMENT ARE DEMONSTRATED TO BE OPERABLE, THOSE REDUNDANT COMPONENTS SHALL BE IMMEDIATELY TESTED TO VERIFY THEIR OPERABILITY. NORMALLY, THIS WILL REQUIRE STARTING THE REDUNDANT COMPONENT(S) AND RUNNING THEM IN NORMAL OR RECIRCULATION MODE, AS APPROPRIATE, FOR A LONG ENOUGH PERIOD TO ASCERTAIN THAT THEY WILL OPERATE IF REQUIRED. SATISFACTORY COMPLETION OF THE LAST SCHEDULED PERIODIC TEST MAY BE USED TO CERTIFY THAT THEIR PERFORMANCE CHARACTERISTICS ARE MET, AND THESE DO NOT HAVE TO BE REVERIFIED AT THIS TIME. FOR INSTRUMENTATION, A CHANNEL CHECK, AS DEFINED IN THE TECHNICAL SPECIFICATIONS, SHALL BE PERFORMED. THE TECHNICAL SPECIFICATIONS SHOULD BE CONSULTED TO DETERMINE THE FREQUENCY FOR REPEATING THESE TESTS. THE RESULTS OF THESE TESTS SHALL BE RECORDED IN THE WATCH SUPERVISORS LOG BOOK.

NOTE: The above procedures shall also be used prior to removing a component from service for preventive maintenance.

In order to identify what equipment is inoperable and thereby prevent inadvertaint use, the follcwing system is to be used.

A. In the case of inoperable pumps, fans, valves, breakers, disconnect switches, etc., tags are to be placed on the equipment controls.

Two types of tagging systems are available for this use:

1. "Stop Tags" - If a Work Permit is made out and the protection applied, the stop tags will serve to identify the inoperable component.

2. "Inoperable Tags" - If it is not desireable to make out a work permit and apply the stated protection, Inoperable Tags may be hung instead in the appropriate locations to identify the inoperable component.

The tags (either Stop Tags or Inoperable Tags) should be hung as soon as practical, normally to be within eight (8) hours from the time the component was declared inoperable.

B. In the case of inoperable instrumentation, and Inoperable Sticker is to be affixed to the instrument face.

C. "Do Not Operate" Tags are not to be used to designate inoperable equipment as defined in this directive. They should be used to state cautionary notes and operating preference as they have in the past.

D. When a piece of equipment is rendered inoperable for the purpose of performing watch functions, it is not necessary to hang Inoperable Tags, as the watch personnel are directly aware of the equipment's status.

E. An Inoperable Tag List (example attached) is to be maintained in the Control Room. Whenever a piece of equipment is declared inoperable and Inoperable Tags or stickers are issued the SRO should fill in the appropriate data.

F. When a here-to-fore inoperable piece of equipment is declared operable:

1. The Work Permit shall be cleared if one was issued.

2. The appropriate entry on the Inoperable Tag List should be "Lined Out" and the Inoperable tags, if used, removed. The SOR should date and initial the "Line" entry.

G. Whenever a safety related component is declared inoeprable, it should be entered on the Equipment Status Boards in the CCR and the appropriate NPO watchstander office.

H. With the approval of the Senior Watch Supervisor, or in the event of an emergency, the SOR or RO, a piece of equipment bearing Inoperable Tags may be run.

I. Completed Inoperable Tag Lists should be forwarded to the Operations Engineer.

3.5 Nuclear Plant Operators

NOTE: On the Support Facilities, a COB or OMA may hold some of these positions.

3.5.1 Prior to completion of the watch turnover, the on-duty NPO shall verbally transmit to the on-coming NPO the following information:

a. Change in status of his respective equipment's condition, with particular emphasis on any new abnormal circumstances or significant changes in routine operation which have occurred and remain in existence since the last regularly scheduled shift worked by the on-coming NPO.

b. Change in status of any critical system line-ups which have changed since the last regularly scheduled shift worked by the on-coming NPO.

c. Any new special orders or directions from station management, which have occurred since his last regularly scheduled shift.

3.5.2 Prior to completion of the watch turnover, the on-coming NPO shall review the NPO log applicable to his position for the previous working shift. He shall discuss with the on-duty NPO areas of concern.

3.5.3 When the on-coming NPO has received all the required information, he will assume the watch.

3.5.4 After taking over the watch, the on-coming NPO shall:

a. Report via telephone to the Control Room as soon as practical so the SRO can note the man who is on duty and pass on any appropriate information or orders.

b. Review all local alarm panels, instrumentation and log sheets for his area and report any unaccounted for abnormal conditions to the SRO.

c. Check for proper operation of all local recorders for his assigned area. Check that the pens of the circular chart recorders are properly aligned with the time markings. Adjust if necessary. The 2300-0700 Watch should also place a mark, noting the correct time and date, next to each pen of all local strip chart recorders.

d. Check operability of all local panel alarms (burned out bulbs, etc.).

e. Read and sign off, as required, any new correspondence, procedures, etc. in his "in-box".

f. Review the appropriate NPO log, if applicable, back to this last working shift.

4.0 Supercedes/Cancels

OAD-2 Rev. 0, dated June 8, 1975.

3.0 System Off-Normal Lineup Identification

In order to provide increased assurance that Operations staff personnel are kept aware of overall palnt status, Operations shift personnel shall identify safety related system lineup changes that deviate from normal positions which, without an awareness of same on the part of other shift personnel, could possibly result in an adverse affect on equipment operability. The documentation of these lineup changes will be accomplished by the SRO and NPOs using special status boards located in the Control Room and at the conventional and nuclear NPO work locations.

Example: If the city water makeup to the diesel generator cooling system head tank is isolated due to leakage thru the level control valves, an entry must be made on the status boards to notify other shift personnel of this fact.

Upon making an entry on one of the NPO status boards, the NPO will notify the Control Room so that a similar entry can be made on the Control Room status board.

The Control Room status board will thus include a summary of the information contained on the field operator status boards and will thereby provide the shift supervisor with information as to these off-normal lineups.

Following watch relief, on-coming shift NPOs shall review their status boards and the Senior Watch Supervisor and SRO shall review the Control Room Status board.

4.0 Supercedes/Cancels

OAD-6 Rev. 1 dated 8/1/77

Inoperable Tag List

Tag #	Equipment	Date	Tag Locations	Cleared Initials/Date

NOTES:
ly has to be filled out when a Work Permit has not been issued.
Use chronological numbers, e.g. 77-1, 77-2 etc. Add suffix I for instrument tags.

Indian Point Station

Operations Subsection

Administrative Directive No. OAD-2 Rev. 1

Title: Watch Relief

Intent: To ensure continuous proper operation and transmittal of operating information at shift change.

Content

Reviewed By: Anthony A. [signature]
John [signature]

Approved By: [signature] 9/[illegible]

9/15/73
Effective Date

"Q.A. Document"

Watch Relief

1.0 Introduction

To facilitate the continuous transmittal of operating information, which is essential to proper, safe and efficient operation, the following watch relief procedure is established.

2.0 Watch Relief Locations

During normal operation, watch relief will normally take place at the following locations:

(a) Senior Watch Supervisor - Watch Supervisors Office.
(b) Watch Supervisor - Watch Supervisors Office.
(c) Senior Reactor Operator and Reactor Operator - Control Room.
(d) Nuclear Side NPO(s) - At offices in Controlled Area.
(e) Conventional Side NPO(s) - At offices in Conventional Plant
(f) Rover NPO(s) - At work location.

3.0 Watch Relief Procedures

When he arrives, the on-coming employee shall familiarize himself with current plant operating conditions and review the plant status with his on-duty counterpart. Reference should be made to work with his on-duty counterpart. Reference should be made to work permits issued, jumpers installed, log books, special procedures, etc. so that the on-coming employee will be infomed of all current operating conditions. The following details of watch relief are divided by duty positions:

3.1 Senior Watch Supervisor

3.1.1 Prior to completion of the watch turnover, the on-duty SWS shall verbally transmit to the on-coming SWS the following information:

a. Change in status of the station and Unit's condition, with particular emphasis on any new abnormal circumstances or significant changes in routine operation which have occurred since the last regularly scheduled shift worked by the on-coming SWS.

b. Change in status of critical watch, maintenance and I&C repair or calibration items in progress in the station.

c. Information relative to any groups, other than station forces, who are working on site.

d. Any new special orders or directions from station management which have occurred since his last regularly scheduled shift.

e. Pertinent information relative to current station operating, personnel, security, safety (radiological and conventional), etc. status.

f. Identify any equipment in off-normal condition, such as tagged out equipment or breakers; jumper installed, etc.

3.1.2 Prior to completion of the watch turnover, the on-coming SWS shall review the SWS and Support Facilities Watch Supervisor logs for the preceding shift and the Night Order Book entries for the previous and current working day. He shall discuss with the on-duty SWS any areas of concern.

3.1.3 When the on-coming SWS has received all the required information, he will assume the watch.

3.1.4 After taking over the watch, the on-coming SWS shall:

a. Read and sign off, as required, any new Distribution Memo's.

b. Read and sign off, as required, any new correspondence, procedures, etc. in his "in-box".

c. Review the SWS and SFWS logs and Night Order Book entries if applicable, back to his last regularly scheduled working shift.

d. Review the Control Room alarms, indicator, records and log sheets and discuss any apparent anomalous indication with the Control Room Operators.

3.2 Support Facilities Supervisor

3.2.1 Prior to completion of the watch turnover, the on-duty SFWS shall verbally transmit to the on-coming SFWS the following information:

a. Change in status of the Support Facilities condition, with particular emphasis on any new abnormal circumstances or significant changes in routine operation which have occurred since the last regularly scheduled shift worked by the on-coming SFWS.

b. Change in status of watch, maintenance and I&C repair or calibration items in progress on the Support Facilities.

c. Information relative to any groups, other than station forces, who are working on the Support Facilities.

d. Any new special orders or directions from station management which have occurred since his last regularly scheduled shift.

e. Pertinent miscellaneous information relative to current operating status.

f. Identify any equipment in off-normal condition, such as tagged out equipment or breakers; jumpers installed, etc.

3.2.2 Prior to completion of the watch turnover, the on-coming SFWS shall review the SFWS log for the preceding shift and the Night Order Book entries for the previous and current working day. He shall discuss with the on-duty SFWS any areas of concern.

3.2.3 When the on-coming SFWS has received all the required information, he will assume the watch.

3.2.4 After taking over the watch, the on-coming SFWS shall:

a. Read and sign off, as required, any new Distribution Memos.

b. Read and sign off, as required, any new correspondence, procedures, etc. in his "in-box".

c. Review the SFWS log back to his last regularly scheduled working shift.

d. Review the Control Room alarm, indicators, recorder and log sheets and discuss any apparent anomalous indication with the Senior Watch Supervisor.

3.3 Senior Reactor Operator

3.3.1 Prior to completion of the watch turnover, the on-duty SRO shall verbally transmit to the on-coming SRO the following information:

a. Change in status of the Station and Units condition, with particular emphasis on any new abnormal circumstances or significant changes in routine operation which have occurred and remain in existence since the last regularly scheduled shift worked by the on-coming SRO.

b. Change in status of watch, maintenance and I&C repair or calibration items which had occurred since his last regularly scheduled shift, and directly effect present or near term future Unit operation.

c. Identify any equipment in off-normal condition, such as tagged out equipment or breakers; jumpers installed, etc., which directly effects present or near term future Unit operation.

d. Any new special orders or directions from station management which have occurred since his last regularly scheduled shift.

3.3.2 Prior to completion of the watch turnover, the on-coming SRO shall:

a. Review the SRO log for the preceding shift.

b. Make a visual survey of Control Room instrumentation and alarms.

c. Discuss with the on-duty SRO areas of concern.

3.3.3 When the on-coming SRO has received all the required information, he will assume the watch.

3.3.4 After taking over the watch, the on-coming SRO shall:

a. Read and sign off, as required, any new correspondence, procedures, etc. in his "in-box".

b. Review the SRO log back to his last working shift.

c. Review the Control Room Log Sheets.

d. During those periods of time when an RO is not present in the Control Room, perform the RO's panel watch relief duties including maintenance of the [illegible]

3.4 Reactor Operator

3.4.1 Prior to completion of the watch turnover, the on-duty RO shall verbally transmit to the on-coming RO the following information:

a. Change in status of the Station and Units condition, with particular emphasis on any new abnormal circumstances or significant changes in routine operation which have occurred and remain in existence since the last regularly scheduled shift worked by the on-coming RO.

b. Change in status of watch, maintenance and I&C repair or calibration items on his Unit which had occurred since his last regularly scheduled shift, and directly effect present or near term future Unit operation.

c. Identify any equipment in off-normal condition, such as tagged out equipment or breakers; jumpers installed, etc. which directly effects present or near term future Unit operation.

d. Any new special orders or directions from station management which have occurred since his last regularly scheduled shift.

3.4.2 Prior to completion of the watch turnover, the on-coming RO shall:

a. Review the Control Room log sheets for the preceding shift.

b. Discuss with the on-duty RO areas of concern.

3.4.3 When the on-coming RO has received all the required information, he will assume the watch.

3.4.4 After taking over the watch, the on-coming RO shall:

a. Check for proper operation of all Control Room recorders. Check that the pens of the circular chart recorders are properly aligned with the time markings; Adjust if necessary. The 0000-0800 Watch should also place a mark, noting the correct time and date, next to each pen of all Control Room strip chart recorders.

b. Check operability of all Control Room panel alarms (burned out bulbs, etc.).

c. Read and sign off, as required, any new correspondence, procedures, etc. in his "in-box".

d. Review the SRO log back to his last regular scheduled working shift.

Bulletin Item 11:

Review your prompt reporting procedures for NRC notification to assure that NRC is notified within one hour of the time the reactor is not in a controlled or expected condition of operation. Further, at that time an open continuous communication channel shall be established and maintained with NRC.

Supplemental Response;

The procedural revisions to require the requested notification have been completed.

Bulletin Item 12:

Review operating modes and procedures to deal with significant amounts of hydrogen gas that may be generated during a transient or other accident that would either remian inside the primary system or be released to the containment.

Supplemental Response:

Although our previous response contained a considerable discussion of hydrogen control schemes for the primary system, specific procedural revisions should await the proper review of the owners group generic efforts (such as on void recognition and control now underway).