



September 26, 1988
IPN-88-043

John C. Brons
Executive Vice President
Nuclear Generation

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-137
Washington, D.C. 20555

Subject: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
Anticipated Transients Without Scram (ATWS)
Rule (10 CFR 50.62); ATWS Mitigating System
Actuation Circuitry (AMSAC)
Plant Specific Design Information, TAC No. 59104

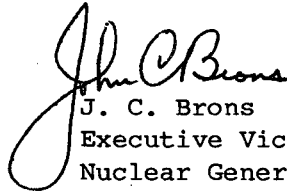
- References:
1. NYPA letter (J. C. Brons) to the NRC, dated July 6, 1988 (IPN-88-027) regarding ATWS Mitigating System Actuation Circuitry (AMSAC) Plant Specific Design Information.
 2. NRC-NYPA telephone conference, August 8, 1988 to discuss the NRC request for clarification of three aspects of NYPA's July 6, 1988 plant specific AMSAC design submittal.

Dear Sir:

In reference 1, the Authority transmitted detailed responses to staff requests for additional information concerning the Indian Point 3 Nuclear Power Plant AMSAC design. In reference 2, the staff identified three aspects of the AMSAC design for which additional information is necessary in order for the staff to complete its review.

The Authority's response to these three staff requests is contained in Attachment 1 to this letter. Should you or your staff have any questions regarding this matter, please contact Mr. P. Kokolakis of my staff.

Very truly yours,


J. C. Brons
Executive Vice President
Nuclear Generation

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ATTACHMENT 1 TO IPN-88-043
PLANT SPECIFIC AMSAC DESIGN INFORMATION

NEW YORK POWER AUTHORITY
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO. 50-286

RESPONSE TO STAFF REQUEST FOR
ADDITIONAL INFORMATION

Staff Request No. 1
Physical Separation Criteria

In Reference 1, the Authority noted that redundant divisions and channels of the IP-3 RPS are channelized and separated such that consistent with the guidance associated with the ATWS rule, non-safety-related AMSAC cables need not be separated from safety-related RPS cables and in most instances AMSAC cable will be run in the same tray as RPS cables. This arrangement places heavy emphasis on electrical isolation provisions. Please clarify the circuit isolation provisions between AMSAC and the turbine trip circuitry.

Response

AMSAC will provide an output for tripping the turbine. This output will be supplied to the turbine trip solenoid dump valves 20 AST and 20 ASB. These solenoid dump valves constitute redundant turbine trip final actuation devices. Once actuated these solenoid dump valves cause the high pressure autostop oil to drain which in turn causes the turbine stop and control valves to close. The solenoid dump valves can be actuated by any one of several protective signals. The AMSAC output to the 20 AST and 20 ASB solenoid dump valves will be wired into the circuitry in parallel with the IEOPS and other turbine trip inputs. The physical connection will be made in the central control room (FA and FB cabinets). These cabinets were selected since they provide a convenient termination point for wiring the AMSAC output isolation relays into the 20 AST and 20 ASB turbine trip solenoids.

Turbine trip on reactor trip circuitry is maintained as safety-related, QA Category I and is controlled in accordance with the Authority's 10 CFR 50 Appendix B QA Program.

To assure that the maximum credible fault that could develop in the non-safety related AMSAC and its power supplies will not propagate to the turbine trip hardware, the isolation provisions noted in Table 1, Item 8 of Reference 1 will be employed. Specifically, qualified Magnecraft output relays (one each for 20AST, and 20ASB) will serve to electrically separate the AMSAC from the turbine trip hardware.

Staff Request No. 2

Other Applications of Magnecraft Relays

The diversity requirements of the ATWS rule preclude the use of the same type of equipment for AMSAC as is used in the RPS. With respect to the Magnecraft relays you intend to use in AMSAC, please confirm that these devices are not and will not be used in RPS applications.

Response

Magnecraft relays of the type that will be used in AMSAC are not currently employed in any RPS applications. As long as these relays are used in AMSAC, they will not be used in the RPS.

Staff Request No. 3

Test Frequency

With regard to the Authority's desire to reserve the right to vary the test frequency based on operational experience with the AMSAC equipment please identify the maximum interval between tests that is envisioned.

Response

For those portions of AMSAC that can be tested at power, a six month test frequency has been proposed with the remaining portions of the system to be tested at refuelings. The six month test frequency is a nominal frequency not to exceed +25%. The Authority's goal is to minimize at power testing, particularly where experience with the equipment supports less frequent surveillance. Accordingly, the maximum test interval that the Authority envisions is a refueling frequency.

Indian Point 3
Nuclear Power Plant
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**New York Power
Authority**

TO: U.S. NRC DOCUMENT CONTROL DESK CONTROL COPY NO.: 25
FROM: EMERGENCY PLANNING DATE: 09/14/88
SUBJECT: DISTRIBUTION OF THE INDIAN POINT #3 EMERGENCY PLAN REVISIONS

The enclosed sheets are revisions to your controlled copy of the IP-3 Emergency Plan. Please discard the old sheets, insert the attached sheets, initial and date this transmittal sheet, and return it to Maggie McGough, IP-3 Emergency Planning Department. Thank you.

VOLUME I - EMERGENCY PLAN - NO CHANGE.

OLD:

NEW:

VOLUME II - EMERGENCY RESPONSE ACTIVATION

OLD:

Volume II Cover Sheet - Rev. #23
Table of Contents - Rev. #23
Control Room Section Pgs. 1-10 (01/88)
Security Section Pgs. 1-4 (01/88)

Appendix 'A' Index (01/88)
Appendix 'A' - Remove all sections.
Appendix 'B' Index & Pgs. 1-9 (03/88)
Appendix 'C' Index & Pgs. 1-11 (01/88)

NEW:

Volume II Cover Sheet - Rev. #24
Table of Contents - Rev. #24
Control Room Sect. Pgs. 1-9 (09/88)
Security Section Pgs. 1-4 (09/88)

Appendix 'A' Index (09/88)
Appendix 'A' Summary page (09/88)
App. 'B' Index & Summary (09/88)
App. 'C' Index & Summary (09/88)

VOLUME III - EMERGENCY PLAN IMPLEMENTING PROCEDURES

OLD:

Volume III Index - Rev. #51
IP-1050 - Rev. 13 All
IP-1052 - Rev. 1 All
IP-1053 - Attachment 4.2
IP-1076 - Rev. 9 All

NEW:

Volume III Index - Rev. #52 (09/88)
IP-1050 - Rev. 14 All
IP-1052 - Rev. 2 All
IP-1053 - Attachment 4.2 (09/88)
IP-1076 - Rev. 10 All

I acknowledge the receipt of these revisions to the IP-3 Emergency Plan.

(Signature)

(Date)

Enclosures
MAC/mm

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o/i