



**Commonwealth Edison**

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August 1, 1989

Dr. Thomas E. Murley, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Attn: Document Control Desk

Subject: Byron Station Units 1 and 2  
Braidwood Station Units 1 and 2  
Regulatory Guide 1.97 Compliance  
NRC Docket Nos. 50-454/455 and 50-456/457

- Reference:
- (a) February 27, 1987 K.A. Ainger letter to H.R. Denton
  - (b) September 1, 1987 S.C. Hunsader letter to T.E. Murley
  - (c) November 6, 1987 L. Olshan letter to L.D. Butterfield
  - (d) December 28, 1987 S.C. Hunsader letter to T.E. Murley
  - (e) May 5, 1988 L. Olshan letter to H.E. Bliss
  - (f) July 27, 1988 S.C. Hunsader letter to T.E. Murley
  - (g) May 19, 1989 S.P. Sands letter to T.J. Kovach
  - (h) June 19, 1989 S.C. Hunsader letter to T.E. Murley
  - (i) July 24, 1989 R.W. Cooper letter to C. Reed

Dear Dr. Murley:

Reference (a) provided Commonwealth Edison's (Edison) preliminary evaluation of the Byron and Braidwood instrumentation for compliance with Regulatory Guide 1.97, Revision 3. Reference (b) provided the results of Edison's final evaluation which were included as Attachments to that letter. Attachment A to reference (b) provided an update of Table 5-1. Attachment B to reference (b) provided the revised Human Factors Engineering Review. These supplemented the information provided in reference (a) and, together, constituted Edison's "Final Report" concerning Regulatory Guide 1.97 compliance for the Byron and Braidwood Stations.

Reference (c) provided the results of the initial NRC review and evaluation of references (a) and (b). Edison's response to these was provided in reference (d). In reference (e), the NRC staff indicated that it had completed its review of Edison's submittals and had concluded that Edison's justification for the exceptions to Regulatory Guide 1.97, Revision 3 for some items was acceptable. However for other items, additional justification was required.

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In response to the NRC staff's review, reference (f) provided the additional justification or provided an appropriate response to the NRC staff's concerns. Subsequently, reference (g) was issued that reported the final results of the NRC Staff review of Edison's submittals.

Reference (h) provided corrected pages to two (2) of Edison's submittals as identified during the NRC inspection at Braidwood during the week of June 12, 1989. In both cases the range of ammeters II-AP062 and II-AP094 were changed from "0-1200 AMP" to "0-200 AMP". Also, instruments II-AP064 and II-AP096 (0-150 AMP) were identified as Byron only. Due to an oversight these had been listed incorrectly.

Reference (i) provided the results of the NRC inspection at Braidwood Station during the week of June 12, 1989 (456/457-89018) which included an inspection of the implementation of Reg Guide 1.97. In reference (i) it was identified that for the Spray Additive Tank Level indication, indicator lights had been provided, but recording capability had not been provided as required for a Reg Guide 1.97 Category I Type A variable instrument. The purpose of this letter, in part, is to provide Edison's justification for this deviation. This is provided in Attachment A.

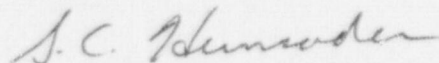
The second purpose of this letter is to provide the implementation schedule, requested in Reference (g), for the four (4) remaining open items. In reference (g), all open items had been accepted by the NRC staff with the exception of the following:

- 1) Accumulator Tank Level and Pressure
- 2) Containment Sump Water Temperature
- 3) RHR Heat Exchanger Outlet Temperature
- 4) Quench Tank Temperature

Attachment B provides the status and actions to be taken for these items.

Please address any questions regarding this submittal to this office.

Very truly yours,



S.C. Hunsader  
Nuclear Licensing Administrator

/LB/0178T:3-4

cc: L. Olshan-NRR  
S. Sands-NRR  
J. Hinds-RIII  
R. Cooper-RIII  
Resident Inspector-Byron  
Resident Inspector-Braidwood

ATTACHMENT A

BYRON/BRAIDWOOD UNITS 1 and 2

REGULATORY GUIDE 1.97 REV. 3 COMPLIANCE

SPRAY ADDITIVE TANK LEVEL

The Spray Additive Tank Level parameter is listed in the Regulatory Guide 1.97, Compliance "Final Report", dated September 1, 1987, as a Type A, Category 1, instrument. Contrary to Category 1 requirements, only status indicating lights are supplied for low level indications, and not "Continuous Real-Time Display."

As stated in the Regulatory Guide 1.97, the Type A variable is plant specific and is provided to supply "Information Required for Operator Action." Byron/Braidwood emergency operating procedures % IBEP-1 and % IBWEP-1, Step 8B, requires the operator to verify if the spray additive tank low-low (Lo-2) level lights are lit as follows:

- a. If they are lit, the operator is directed to close the containment spray (CS), educator spray additive isolation valves % CS019A & B,
- b. If they are not lit, the operator is directed to monitor the lights until they are lit; then the operator closes the % CS019A & B valves.

As evidenced by the above, the use of the indication lights is appropriate for this plant specific variable. Continuous real time display is not necessary since this display would not provide a useful purpose to the operators during an emergency situation.

ATTACHMENT B

BYRON/BRAIDWOOD UNITS 1 and 2

REGULATORY GUIDE 1.97 REV. 3 COMPLIANCE

STATUS AND ACTION SUMMARY

The NRC Staff issued the Byron/Braidwood Safety Evaluation Report (SER) regarding compliance to Regulatory Guide 1.97 Revision 3 on May 14, 1989. All justifications have been accepted by the NRC staff except for four (4) items. The purpose of this document is to outline the present status and actions for these items. The four (4) instruments affected are:

- 1) Accumulator Tank Level and Pressure
- 2) Containment Sump Water Temperature
- 3) RHR Heat Exchanger Outlet Temperature
- 4) Quench Tank Temperature

The following describes the status and the applicable implementation schedule for upgrading these items:

1. ACCUMULATOR TANK LEVEL AND PRESSURE

The NRC staff is continuing to review and determine on a generic basis, the need to replace this instrumentation. Since this is the case, no action is being taken at this time.

2. CONTAINMENT SUMP WATER TEMPERATURE

The NRC staff is continuing to review and determine on a generic basis, the need to replace this instrumentation. Since this is the case, no action is being taken at this time.

3. RHR HEAT EXCHANGER OUTLET TEMPERATURE

The existing RHR heat exchanger outlet temperature instrumentation will be replaced with environmentally qualified instrumentation. Approximately 420 feet of conduit and 950 feet of cable for each of Units 1 and 2 will have to be re-routed to facilitate this change.

This modification is scheduled to be installed during the following refueling outages:

Byron Unit 1 . . . . . B1R04 (July, 1991)  
Byron Unit 2 . . . . . B2R02 (September, 1990)  
Braidwood Unit 1 . . . . . A1R02 (March, 1991)  
Braidwood Unit 2 . . . . . A2R02 (September, 1991)

4. QUENCH TANK TEMPERATURE

Edison believes the existing pressurizer relief tank temperature instrumentation can be rescaled from a range of 50°F - 300°F to 50°F - 340°F and can be performed without replacing the existing instrumentation via the setpoint change request program. As a result, this change will be initiated. If this approach is not successful, the temperature instrumentation will be replaced with environmentally qualified instrumentation that contains the appropriate temperature range scale.

Either of these changes are scheduled to be made prior to startup following the completion of these refueling outages:

Byron Unit 1 . . . . .	B1R04 (July, 1991)
Byron Unit 2 . . . . .	B2R02 (September, 1990)
Braidwood Unit 1 . . . . .	A1R02 (March, 1991)
Braidwood Unit 2 . . . . .	A2R02 (September, 1991)