



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

50-454/455
50-456/457

January 21, 1998

Mr. Oliver D. Kingsley, President
Attn.: Regulatory Services
Nuclear Generation Group
Commonwealth Edison Company
Executive Towers West III
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: BYRON STATION, UNITS 1 AND 2, AND BRAIDWOOD STATION, UNITS 1 AND 2,
ACCEPTANCE FOR REFERENCING OF PRESSURE TEMPERATURE LIMITS
REPORT (TAC NUMBERS M98799, M98800, M98801, AND M98802)

Dear Mr. Kingsley:

- REFERENCES:
1. Letter from R. R. Assa, NRC, to D. L. Farrar, Commonwealth Edison Company, "Exemption from Requirements of 10 CFR 50.60 - Braidwood Station, Unit 1," July 13, 1995.
 2. Letter from C. I. Grimes, NRC, to R. A. Newton, Westinghouse Electric Corporation, "Acceptance for Referencing of Topical Report WCAP-14040, Revision 1, 'Methodology Used to Develop Cold Overpressure Mitigating System Setpoints and RCS Heatup and Ccoldown Limit Curves,'" October 16, 1995. (Also known as WCAP-14040-NP-A).
 3. Letter from G. F. Dick, NRC, to I. M. Johnson, Commonwealth Edison Company, "Exemption from Requirements of 10 CFR 50.60, 'Acceptance Criteria for Fracture Prevention Measures for Lightwater Nuclear Power Reactors for Normal Operation' - Byron Station, Units 1 and 2," November 29, 1996.
 4. Letter from J. B. Hosmer, Commonwealth Edison Company, to NRC Document Control Desk, "Reactor Vessel Integrated Surveillance Program 10 CFR 50, Appendix H, Section III. C," May 6, 1997. (WCAP-14824, Revision 1 is Attached).
 5. Letter from J. B. Hosmer, Commonwealth Edison Company, to NRC Document Control Desk, "Application for Amendment to Appendix A, Technical Specifications, for Facility Operating Licenses Relocation of Pressure and Temperature Limits," May 21, 1997.
 6. Letter from J. B. Hosmer, Commonwealth Edison Company, to NRC Document Control Desk, "Supplement to the Application for Amendment to Appendix A, Technical Specifications, for Facility Operating Licenses Relocation of Pressure and Temperature Limits," November 18, 1997. (WCAP 14940 and data to WCAP-14940 and WCAP-14970 are Attached).

Contact: Maggalean W. Weston, (301) 415-3151

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7. Letter from J. B. Hosmer, Commonwealth Edison Company, to NRC Document Control Desk, "Supplemental Information Pertaining to Byron & Braidwood's Reactor Vessel Integrated Surveillance Program," December 3, 1997. (WCAP-14824, Revision 2, and Erratum to WCAP-14824, Revision 2 are Attached).
8. Letter from G. F. Dick, NRC, to I. M. Johnson, Commonwealth Edison Company, "Exemption from Requirements of 10 CFR 50.60 - Braidwood Nuclear Station, Unit 2," December 12, 1997.
9. Letter from H. G. Stanley, Commonwealth Edison Company, to NRC Document Control Desk, "Supplemental Information Pertaining to Technical Specification Amendment Regarding Pressure Temperature Curves - Byron and Braidwood Nuclear Power Stations," January 8, 1998. (Errata to WCAP-14824 Revision 2, WCAP-14940 and WCAP-14970 are Attached).
10. Letter from H. G. Stanley, Commonwealth Edison Company, to NRC Document Control Desk, "Supplemental Information Pertaining to Technical Specification Amendment Regarding Pressure Temperature Curves - Byron and Braidwood Nuclear Power Stations," January 13, 1998.
11. Letter from G. F. Dick, NRC, to O. D. Kingsley, Commonwealth Edison Company, "Exemption from Requirements of 10 CFR 50.60 - Byron, Units 1 and 2, and Braidwood, Units 1 and 2," January 16, 1998.
12. Letter from R. A. Capra, NRC, to O. D. Kingsley, Commonwealth Edison Company, "Integration of Reactor Pressure Vessel Surveillance Program for Byron and Braidwood, Units 1 and 2," January 16, 1998.

We have completed our review of the pressure temperature (P/T) limit curves and low temperature overpressure protection (LTOP) system limits methodology and the pressure temperature limits report (PTLR) (as referenced above), submitted by the Commonwealth Edison Company (ComEd). We find the methodology to be acceptable for referencing in the administrative controls section of the Byron Station, Units 1 and 2, and Braidwood Station, Units 1 and 2, technical specifications (TS) to the extent specified and under the limitations delineated in your submittals and the associated NRC safety evaluation, which is enclosed. The safety evaluation defines the basis for acceptance of the submittals. Our acceptance applies only to the matters described in the submittals.

The NRC reviewed ComEd's method for integrating the data from the reactor pressure vessel surveillance capsules as a part of the methodology for developing the P/T limit curves. While the staff finds the method acceptable, as stated in the safety evaluation, the NRC notes that ComEd should (1) re-evaluate the appropriate method for determining the best-estimate chemical composition as additional chemical composition data become available, (2) assess the impact of the assumption that the vessel weld has the same $RT_{NDT(U)}$ value as determined from the surveillance weld in future revisions to the PTLR and/or when additional surveillance data

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become available, and (3) address the method for assessing the credibility of the surveillance capsule data, including the method for accounting for irradiation environment and chemical composition differences, in future revisions to the PTLR.

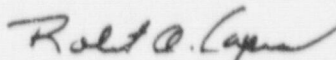
The methodology for review relating to the P/T limit curves and the LTOP system limits was provided in the references listed above. Reference 2 included WCAP-14040-NP-A which provided parts of the methodology used for determining the acceptance of the Byron and Braidwood methodology.

The methodology in WCAP-14040-NP-A, along with supplements provided by ComEd will be used to calculate future changes to the P/T limit curves and LTOP system limits. ComEd may generate new P/T limit curves and LTOP system limits in accordance with this methodology without prior approval of the staff. However, changes to the methodology must first be reviewed and approved by the staff. System limits may be subject to audit by the staff through inspections as necessary.

We do not intend to repeat our review of the matters described in the submittals if the submittals appear as references in other license applications relating to your plants, except to ensure that the material in the submittals is still applicable to your plants as indicated in the conclusion section of the safety evaluation.

Should our criteria or regulations change so that our conclusions as to the acceptability of the methodology is invalidated, licensees referencing these documents will be expected to revise and resubmit their respective documentation, or submit justification for the continued effective applicability of the documents without revision of their respective documentation.

Sincerely,



Robert A. Capra, Director
Project Directorate III-2
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Docket No. STN 50-454, STN 50-455
STN 50-456 and STN 50-457

Enclosure: Safety Evaluation

cc w/encl: See next page

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become available, and (3) address the method for assessing the credibility of the surveillance capsule data, including the method for accounting for irradiation environment and chemical composition differences, in future revisions to the PTLR.

The methodology for review relating to the P/T limit curves and the LTOP system limits was provided in the references listed above. Reference 2 included WCAP-14040-NP-A which provided parts of the methodology used for determining the acceptance of the Byron and Braidwood methodology.

The methodology in WCAP-14040-NP-A, along with supplements provided by ComEd will be used to calculate future changes to the P/T limit curves and LTOP system limits. ComEd may generate new P/T limit curves and LTOP system limits in accordance with this methodology without prior approval of the staff. However, changes to the methodology must first be reviewed and approved by the staff. System limits may be subject to audit by the staff through inspections as necessary.

We do not intend to repeat our review of the matters described in the submittals if the submittals appear as references in other license applications relating to your plants, except to ensure that the material in the submittals is still applicable to your plants as indicated in the conclusion section of the safety evaluation.

Should our criteria or regulations change so that our conclusions as to the acceptability of the methodology is invalidated, licensees referencing these documents will be expected to revise and resubmit their respective documentation, or submit justification for the continued effective applicability of the documents without revision of their respective documentation.

Sincerely,

Original Signed By

Robert A. Capra, Director
Project Directorate III-2
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Docket No. STN 50-454, STN 50-455
STN 50-456 and STN 50-457

Enclosure: Safety Evaluation

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