Commonwealth Edison
One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

September 23, 1983

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Byron Generating Station Units 1 and 2
Braidwood Generating Station Units 1 and 2
FSAR Amendment 43
NRC Docket Nos. 50-454, 50-455, 50-456, and 50-457

Dear Mr. Denton:

The application for construction permits and operating licenses for Byron Generating Station Units 1 and 2 and Braidwood Generating Station Units 1 and 2, docketed September 20, 1983, are hereby amended by submittal of Amendment 43 pursuant to 10 CFR 50.34.

Amendment 43 to the Byron/Braidwood FSAR consists of new responses to questions from the Materials Engineering Branch (121.0 series) the Structural Engineering Branch (130.0 series), the Reactor Systems Branch (212.0 series), the Equipment Qualification Branch (271.0 series), and the Siting Analysis Branch (330.0 series). Also included are revised responses to Questions 010.19, 010.47, 010.57, 010.59, 022.16, 022.24, 022.30, 040.188, 110.18, 241.3(Br), 241.8(Br), 251.2, 270.1, 270.5, 270.8, 281.7, 362.1(Br), and 423.40, and voluntary text changes.

Attachment A to this letter is an itemized summary of changes contained in the amendment. This summary is provided at the request of the NRC Staff as an aid to the identification of FSAR changes requiring further evaluation by the NRC.

Three signed originals and fifty-seven copies of this amendment are submitted for NRC use.

Please direct questions regarding these matters to this office.

Very truly yours,

T. R. Tramm

T. R. Tramm
Nuclear Licensing Administrator

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SUBSCRIBED and SWORN to
before me this 23rd day
of September, 1983

Rosalie A. Prieto
Notary Public

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ATTACHMENT A

SUMMARY OF CHANGES CONTAINED

IN B/B-FSAR AMENDMENT 43

Page, Figure, or Table Number	Description of Change
1.1-2	Revised fuel load dates for Byron 1&2
2.2-5,5a (Byron)	Subsection 2.2.3.1.3 revised per NRC request relating to deletion of chlorine detectors
2.3-23a (Byron)	Revision to description of meteorological instrumentation
F2.5-89,90 (Byron)	Editorial
T2.5-24 (Byron)	Editorial
2.1-1 (Braidwood)	Change reflects current cooling pond surface area
2.1-8,23,28,32 (Braidwood)	Revised population data
F2.1-2,6,8 (Braidwood)	Revised site boundaries
2.2-1,1a,2,8a (Braidwood)	Revised per response to Q330.4
2.3-25a (Braidwood)	Revision to description of meteorological instrumentation
2.4-1,11,17 2.5-91 (Braidwood)	Revised cooling pond surface area
3.1-25,26	Editorial
3.2-4	Spent fuel pool liner declassified to Category I (See also p.9.1-14, p.B.7-1)
3.2-6	Changes reflect current design; (Shell side of seal water HX Quality Group C; Amendment 42 change was incorrect)
3.2-8,10	Changes per response to Q270.1 (p. Q270.1-5)

Page, Figure, or Table Number	Description of Change
3.5-1	Editorial
F3.6-48 through F3.6-78	CV and SD breaks and restraint locations Q212.112
3.7-8,9,11	Editorial
3.7-20	Delineates responsibility for design of various piping systems
3.7-25	Description of WESTDYN added to Appendix D
3.7-30,31	Reflects current design of seismic instrumentation
3.8-25,28	Editorial
3.8-31a,34a	Description of Braidwood ESWDS added per response to Q130.57
3.8-31 through 3.8-34e	Byron and Braidwood unique information now printed on colored pages
3.8-37a	Editorial
3.8-49,50	AISI reference added
3.9-10,57,75,78,84,97	Editorial
3.9-108	Corrections per piping and instrumentation diagrams (active valves)
3.10-6	AISI spec. edition date removed
3.11-2	Editorial
3.11-3	Revised per response to Q270.5 (Equip. Qual.)
3.11-4,6	Editorial

Page, Figure, or Table Number	Description of Change
4.1-2, 4.2-25	Editorial
4.3-9,10	Editorial
4.4-13,25	Editorial
5.4-49	Editorial
6.1-3	Editorial
6.2-2,9	Editorial
6.2-29,32	Name of RCFC backdraft dampers changed to RCFC check dampers
6.2-53	Editorial
6.2-161,162,163	Revised data per large break LOCA reanalysis
6.2-164	Revised containment spray and fan cooler start times (see Q22.24)
6.2-172	Table revised to reflect conformance of CCW line to general design criteria; FP valves are globe valves
6.2-173	Line size for 1IA088 is 1/2-inch; 1MS101D and 1MS101B have 10 second closure times
6.2-174	1MS101A and C have 10 second closure times
6.2-175	Line size for 1PS231A and B is 3/4-inch
6.2-175a	Closure times for 1RH8701A,B, 8702A,B are N/A; closure time for 1SI8880 is 10 sec.; closure times for 1SI8809A and B are 15 sec.; opening times for 1SI8811A and B are 90 sec.; 1SI8812A and B deleted from table since they are not containment isolation valves

Page, Figure, or Table Number	Description of Change
6.2-175b	Closure time for 1SI8840 is N/A; closure times for 1SI8825 and 1SI8843 are 10 sec.
F6.2-24	Revised per large break LOCA reanalysis
F6.2-25	Curve revised using 45°F cooling water temperature (see Q22.24)
F6.2-26,27	Revised per large break LOCA reanalysis
6.3-35	Revised closure times for valves SI8809A and B
6.3-46a,46b	Revision to cold leg-to-hot leg recirculation switchover steps
F6.3-2; Valve alignment chart pages 2 and 3	Revised to reflect current operational modes
F6.4-3	Control room has one foot minimum floor thickness
6.5-4,10	Changes reflect current design
6.5-12,15	Editorial
6.5-16	1) Editorial, 2) Change reflects current design
6.5-21, 7.1-19,31	Editorial
7.2-7	Opening of any RCP breaker above P-8 will not trip reactor; (this was noted in Byron SER)
7.3-6,7,8,14,16	Changes reflect current design
7.3-17	Editorial
7.3-18,23,24	Changes reflect current design

Page, Figure, or Table Number	Description of Change
7.3-30	Editorial
7.3-35,36	Changes reflect current design
F7.3-3,4,5	Figures updated to reflect current design
7.6-1	Pressure setpoints revised to reflect current design and RHR valves identified
7.6-3	Added reference to F7.6-5
8.1-16	Added references 15 and 16
9.1-3	Changes reflect current design (new fuel storage rack construction)
9.1-7,7a	Changes reflect current design (fuel handling)
9.1-14,14a	Spent fuel pool liner declassified to Category II (see also T3.2-1 and p. B.7-1)
9.1-17,20,21,22,23,24	Changes reflect current design (spent fuel pool cleanup)
9.1-26	Editorial
9.1-28,28a,29	Changes reflect current design (fuel handling and storage)
9.1-32	Editorial
9.1-33,34	Changes reflect current design (fuel handling and storage)
9.1-46	Changes reflect current design
9.2-34,35,36	Revised Braidwood ultimate heat sink analysis

Page, Figure, or Table Number	Description of Change
9.2-40,47	Changes reflect current design
9.2-52	New reference for UHS analysis
9.2-53,54	Changes reflect current design for ESW heat loads
9.2-64,65,66	Changes reflect current design
9 4-1,2,29	Changes reflect current design
9. 1	Editorial
9.4-44	RCFC backdraft dampers changed to RCFC check dampers
10.3-2,2b,2c	"A" and "B" trains changed to "Active" and "Standby" trains
10.4-2	Editorial
10.4-20,21,22	Changes reflect current design
11.2-5,10,13	Editorial
11.2-22,24; 11.3-25, 27 (Braidwood)	Changes reflect current station cooling pond blowdown value of 43.2 cfs, new site survey data, and revised population and food production estimates
11.2-23 (Byron)	Editorial
11.3-8	Changes reflect current design (See T11.3-10 also)
11.3-12	Editorial
11.3-28	New Table 11.3-10 (See also p. 11.3-8)
12.2-4	Editorial
12.2-6	Changes reflect current design
12.2-6a	Editorial

Page, Figure, or Table Number	Description of Change
12.2-11 12.3-7	Editorial
12.3-10	Change reflects current design (routing of radioactive piping)
12.3-13,23	Editorial
12.3-27	1) Editorial; 2) Change reflects current design (shielding)
12.3-29	Editorial
F13.1-1	Figure revised to show current project organization
13A-25a,b,c,d	Expanded resumé of Braidwood Station Health Physicist (per NRC request)
14.2-17	Change reflects current test procedures (seismic instrumentation)
14.2-27	Change reflects current test procedure (Byron)
14.2-27a	Braidwood ESW preop test to be discussed later
14.2-31	Change reflects current test procedure
14.2-98	Test objective is to maintain plant in hot standby from outside control room, not hot shutdown
15.0-2	Editorial
15.0-50	Revision per large break LOCA reanalysis
15.2-19; 15.3-10; 15.4-56; 15.6-11	Editorial

Page, Figure, or Table Number	Description of Change
15.6-16 through 15.6-21	Revised per large break LOCA reanalysis
15.6-24	Editorial
15.6-29; 15.6-31 through 15.6-32; 15.6-35,36	Revised per large break LOCA reanalysis
15.6-50	Editorial
F15-6-7 through F15.6-33	Figures revised per large break LOCA reanalysis
15.7-4,5,7	Editorial
15.B-2 through 15.B-6	Revised per large break LOCA reanalysis
A1.27-1	Editorial
A1.67-1	Reg. Guide 1.67 was withdrawn
A1.75-3,4,5	Editorial
A1.116-1, A8.8-1	Editorial
B.1-16	Editorial
B.7-1	Spent fuel pool liner declassified to Category II (See also T3.2-1 and p. 9.1-14)
B.7-2	Editorial
D.2-1	Editorial
D.8-1,2	Description of WESTDYN computer program added to Appendix D
D.15-2,3	Editorial

Page, Figure, or Table Number	Description of Change
D.22-1,2	Description of COLID computer program added to Appendix D
D.23-1,2,3,4	Editorial corrections, references added, and pages renumbered
D.T-36 through D.T-44, FD-66, FD-67	Tables and figures added for description of COLID computer program
E.0-1	Editorial
E.17-1 through E.17-10; FE.17-1 through FE.17-3	Description of plant safety parameter display system added to Appendix E
E.30-2, E.75-2, E.80-1	Editorial correction
E.75-9	Change reflects current design
E.30-5,6,7	Description of containment hydrogen monitor added
Q10.19-1	Spent fuel pool liner declassified to Category II (See also T3.2-1, p. 9.1-14, p. B.7-1)
Q10.47-5	Editorial
Q10.59-1	Editorial
Q10.57-1 through Q10.57-5	Revised response to question on fire protection (FPR has not been Amended, however, revised FPR pages were transmitted to NRC in advance)
Q22.16-1	Editorial
Q22.24	Revised per large break LOCA reanalysis
Q22.30-2	Revised to agree with Table 6.2-58

Page, Figure, or Table Number	Description of Change
Q40.188	Revised response to question on fire protection (FPR has not been Amended, however, revised pages were transmitted to NRC in advance)
Q110.18-3,4,6,7,8,10, 11,13,14,15,16	Changes to reflect pump and valve preservice inspection program
Q110.63-3	Revised snubber test commitment
Q121.5, Q121.6	Responses to questions on preservice weld inspections
Q130.55	Response to recent Braidwood question on boxcar explosion study
Q130.57	Response to recent Braidwood question on essential service water discharge structure
Q212.112	New figures provided showing breaks and restraint locations for AF, CV, and SD
Q212.160	Response to NRC question on use of PORVs as pressurizer vents, qualification of PORVs to withstand SSE, and use of PORVs following SGTR
Q241.3-1	Revised response to recent Braidwood question on backfill used for Category I structures
Q241.8-2	Revisions to Braidwood question on stability of interior dike
Q251.2-1,4,5	Braidwood 1 and 2 fracture toughness data provided

Page, Figure, or Table Number	Description of Change
Q270.1-5, Q270.5-1, Q270.8-2,3	Editorial (Note: All Q270 series responses apply to both Byron and Braidwood)
Q271.1	Response to question on seismic and dynamic equipment qualification
Q281.7-3,3a	Description of containment hydrogen monitor added
Q330.3	Response to recent Braidwood question on gas pipeline
Q330.4	Response to recent Braidwood question on shipments of explosive material
Q362.1-2,3,4,5,	Revision to recent Braidwood question on settlement of Category I structures; new column added to TQ362.1-1
Figures Q362.1-10 through Q362.1-12; Q362.1-14 through Q362.1-18	Revisions made to indicate stabilized elevations for settlement plots (Braidwood)
Q423.40-1	Revised per recent NRC concern regarding vortexing at Braidwood lake