Commonwealth Edison Company
Byron Generating Station
4450 North German Church Road
Byron, IL 61010-9794
Tel 815-234-5441

ComEd

May 8, 1996

LTR: BYRON 96-0112
FILE: 1.10.0101

U. S. Nuclear Regulatory Commission
Washington, D.C 20555-0001

Attention: Document Control Desk

Subject: Report on Timed Rod Drop Testing and Drag Force Testing

Byron Nuclear Power Station, Units 1 and 2
NRC Docket Numbers: 50: 454 and 455

References:
1. NRC Bulletin (NRCB) 96-01, "Control Rod Insertion Problems," dated March 8, 1996.
2. Letter from J. B. Hosmer (ComEd) to U.S. Nuclear Regulatory Commission transmitting ComEd's response to NRCB 96-01, dated April 4, 1996.

In Reference 1, the Nuclear Regulatory Commission (NRC) transmitted a request for input from holders of pressurized water reactor operating licenses regarding control rod insertion problems. ComEd's response to this Bulletin (Reference 2) committed to providing a report to the NRC within 30 days of any testing results for scheduled refueling outages. Byron Station commenced refueling outage B1R07 on April 5, 1996. The requested timed rod drop tests (rod drop times and rod recoil confirmation) were performed. All rods dropped within Technical Specification time limits and demonstrated adequate rod recoil. The results of these tests are contained in the Attachment to this letter.

I affirm that the content of this transmittal is true and correct to the best of my knowledge, information and belief.

IE57 1/1

If you need any additional information concerning this report, please contact Scott Connelly, Lead Nuclear Engineer, at (815) 234-5441, extension 2284.

Sincerely,

K. L. Graesser
Site Vice President
Byron Station

Attachment

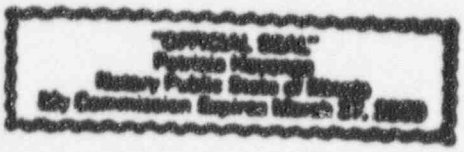
cc: G. Dick, Byron Project Manager-NRR
H. Miller, Regional Administrator-RIII
H. Peterson, Senior Resident Inspector-Byron
Office of Nuclear Safety-IDNS

Subscribed and sworn before me

on this 8 day of May, 1996

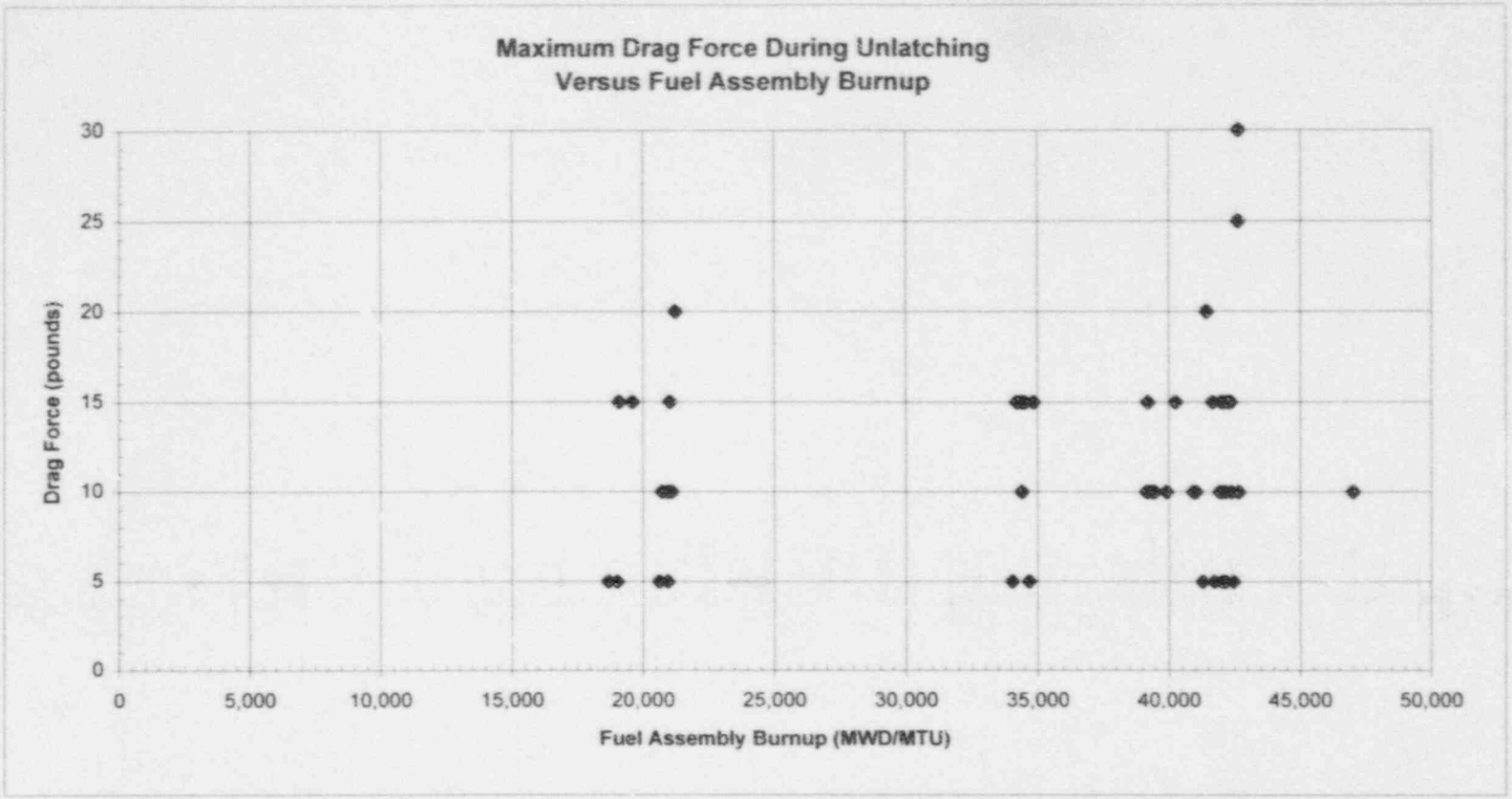
by Patricia Noriega.

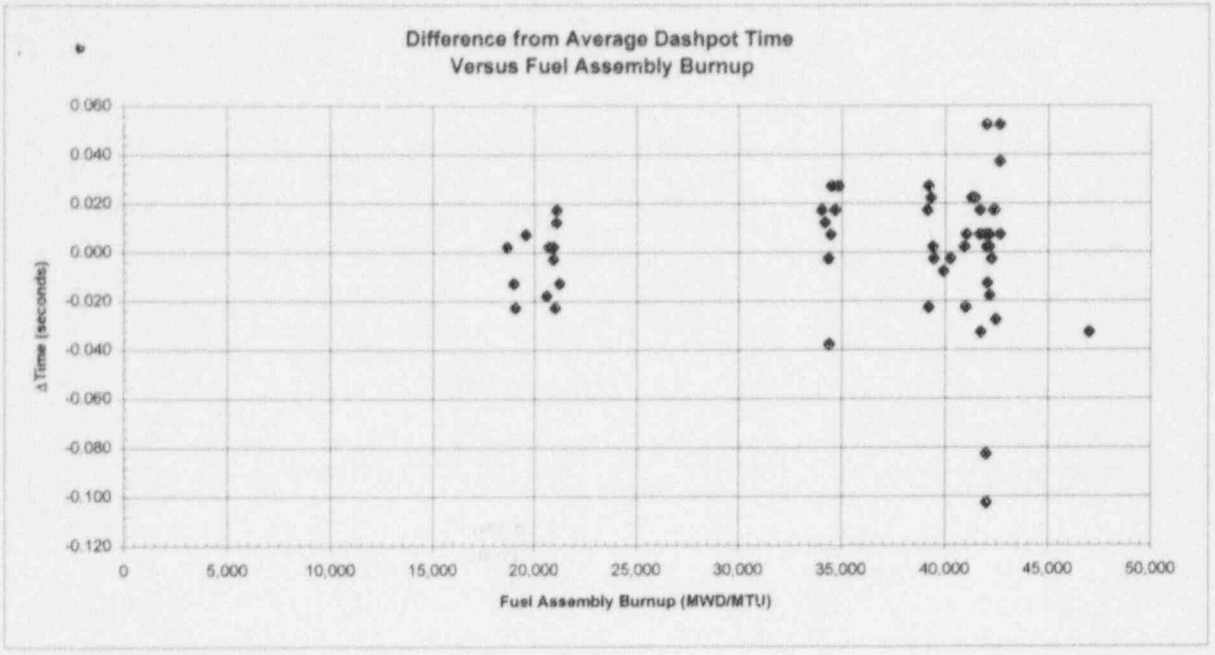
Notary Public



RCCA Drop Times and Drag Forces During at End of Byron Unit 1 Cycle 7

No. (n)	RCCA Location	Fuel Assembly Burnup	Drop Time (to Entry into Dashpot)	Difference from Average Drop Time	Drop Time (Dashpot Entry to Full Insertion)	Difference from Average Dashpot Time	Adequate Recoil (Yes/No)	Maximum Drag Forces during Unlatching
1	H-08	46,994	1.575	0.035	0.440	-0.033	Yes	10
2	D-04	42,643	1.525	-0.015	0.480	0.007	Yes	10
3	F-08	42,634	1.555	0.015	0.525	0.052	Yes	30
4	H-10	42,626	1.560	0.020	0.510	0.037	Yes	25
5	K-10	42,441	1.545	0.005	0.445	-0.028	Yes	5
6	M-04	42,372	1.495	-0.045	0.490	0.017	Yes	10
7	F-10	42,332	1.580	0.040	0.490	0.017	Yes	15
8	C-05	42,240	1.520	-0.020	0.470	-0.003	Yes	15
9	N-05	42,148	1.520	-0.020	0.455	-0.018	Yes	5
10	H-06	42,126	1.525	-0.015	0.480	0.007	Yes	5
11	E-03	42,120	1.585	0.045	0.475	0.002	Yes	10
12	F-06	42,036	1.530	-0.010	0.460	-0.013	Yes	15
13	N-11	42,005	1.525	-0.015	0.475	0.002	Yes	5
14	M-12	42,000	1.615	0.075	0.370	-0.103	Yes	5
15	K-08	41,998	1.535	-0.005	0.525	0.052	Yes	15
16	D-12	41,988	1.625	0.085	0.390	-0.083	Yes	15
17	L-03	41,929	1.545	0.005	0.480	0.007	Yes	10
18	K-06	41,724	1.510	-0.030	0.440	-0.033	Yes	5
19	E-13	41,662	1.575	0.035	0.490	0.017	Yes	15
20	C-11	41,655	1.560	0.020	0.480	0.007	Yes	15
21	D-08	41,429	1.535	-0.005	0.495	0.022	Yes	20
22	L-13	41,282	1.550	0.010	0.495	0.022	Yes	5
23	M-08	41,018	1.525	-0.015	0.480	0.007	Yes	10
24	H-12	40,995	1.515	-0.025	0.450	-0.023	Yes	10
25	H-04	40,923	1.530	-0.010	0.475	0.002	Yes	10
26	N-07	40,249	1.510	-0.030	0.470	-0.003	Yes	15
27	C-07	39,906	1.515	-0.025	0.465	-0.008	Yes	10
28	J-03	39,449	1.525	-0.015	0.470	-0.003	Yes	10
29	J-13	39,397	1.565	0.025	0.475	0.002	Yes	10
30	G-03	39,309	1.535	-0.005	0.495	0.022	Yes	10
31	N-09	39,198	1.525	-0.015	0.500	0.027	Yes	10
32	C-09	39,196	1.520	-0.020	0.450	-0.023	Yes	15
33	G-13	39,142	1.520	-0.020	0.490	0.017	Yes	10
34	B-12	34,838	1.530	-0.010	0.500	0.027	Yes	15
35	M-02	34,671	1.580	0.040	0.490	0.017	Yes	5
36	D-02	34,513	1.555	0.015	0.500	0.027	Yes	15
37	P-04	34,452	1.505	-0.035	0.480	0.007	Yes	15
38	P-12	34,398	1.490	-0.050	0.435	-0.038	Yes	10
39	B-04	34,372	1.510	-0.030	0.470	-0.003	Yes	15
40	D-14	34,196	1.575	0.035	0.485	0.012	Yes	15
41	M-14	34,031	1.545	0.005	0.490	0.017	Yes	5
42	B-10	21,231	1.525	-0.015	0.460	-0.013	Yes	20
43	P-06	21,097	1.500	-0.040	0.490	0.017	Yes	10
44	F-02	21,087	1.560	0.020	0.485	0.012	Yes	10
45	P-10	21,017	1.525	-0.015	0.450	-0.023	Yes	15
46	K-02	20,943	1.580	0.040	0.475	0.002	Yes	10
47	B-06	20,941	1.505	-0.035	0.470	-0.003	Yes	5
48	F-14	20,721	1.605	0.065	0.475	0.002	Yes	10
49	K-14	20,613	1.540	0.000	0.455	-0.018	Yes	5
50	B-08	19,587	1.515	-0.025	0.480	0.007	Yes	15
51	P-08	19,071	1.545	0.005	0.450	-0.023	Yes	15
52	H-02	19,000	1.510	-0.030	0.460	-0.013	Yes	5
53	H-14	18,677	1.520	-0.020	0.475	0.002	Yes	5
	Average Drop Time		1.540		0.473			


Maximum Drag Force During Unlatching
Versus Fuel Assembly Burnup
Drag Force (pounds)
30
25
20
15
10
5
0
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
40,000
45,000
50,000
Fuel Assembly Burnup (MWD/MTU)


Difference from Average Dashpot Time
Versus Fuel Assembly Burnup
Δ Time (seconds)
0.060
0.040
0.020
0.000
-0.020
-0.040
-0.060
-0.080
-0.100
-0.120
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
40,000
45,000
50,000
Fuel Assembly Burnup (MWD/MTU)

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13	G-13	39,142	1.520	-0.020	0.490	0.017	Yes	10
14	M-02	34,671	1.580	0.040	0.490	0.017	Yes	5
15	M-14	34,031	1.545	0.005	0.490	0.017	Yes	5
16	P-06	21,097	1.500	-0.040	0.490	0.017	Yes	10
17	D-14	34,196	1.575	0.035	0.485	0.012	Yes	15
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