

Duke Power Company  
McGuire Nuclear Generation Department  
13700 Hagers Ferry Road (MG01VP)  
Huntersville, NC 28078-9340

T. C. McMEekin  
Vice President  
(704)875-4800  
(704)875-4809 Fax



**DUKE POWER**

December 10, 1996

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Subject: Duke Power Company  
McGuire Nuclear Station  
Docket Nos. 50-369, 370  
NRC Bulletin 96-01 - Outage Test Data

NRC Bulletin 96-01, "Control Rod Insertion Problems," dated March 8, 1996 requested holders of operating licenses for Westinghouse designed plants to take actions and supply information to the NRC regarding control rod insertion problems. The initial Duke Power response to this bulletin was provided by letter dated April 4, 1996 and supplemented with additional information by letters dated April 30, 1996, May 13, 1996, May 23, 1996 and June 7, 1996.

The purpose of this letter is to provide results from the McGuire Unit 1 Rod Drop Timing tests performed on November 9, 1996, (Attachment 1) and from the Unit 2 Rod Drop Timing tests performed on November 11, 1996, (Attachment 2) as required per the Duke Power response to the subject bulletin. All test results were satisfactory. All control rods reached rod bottom promptly with no abnormal traces noted. McGuire Nuclear Station has employed a newly developed DPRI Display System for performing rod drop times during the most recent November forced outages. This new system does not directly measure rod recoil data. The system measures and records exact rod bottom time. Therefore, recoil data is not presented in the attachments. The results show no correlation between fuel assembly burnup and rod drop time. The November, 1996 results were compared to the previous BOC11 results for both units. This comparison showed no appreciable difference between the attached November, 1996 data and the Beginning of Cycle 11 data.

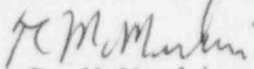
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Please direct questions on this matter to Kay L. Crane at  
(704) 875-4306.

Very truly yours,



T. C. McMeekin, Vice President  
McGuire Nuclear Station

cc: Mr. S. D. Ebnetter, Regional Administrator  
U. S. Nuclear Regulatory Commission, Region II  
101 Marietta St., NW, Suite 2900  
Atlanta, GA 30323

Mr. Victor Nerses  
U. S. Nuclear Regulatory Commission  
Office of Nuclear Reactor Regulation  
Washington, D.C. 20555

Mr. Scott Shaeffer  
NRC Senior Resident Inspector  
McGuire Nuclear Station

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cc: S. C. Ballard  
M. T. Cash  
B. J. Dolan  
J. E. Snyder  
J. C. Weber  
EC050-ELL

**Unit 1 Rod Drop Timing**  
November 1996

F/A #	Core Location	Time to Dash	Time from Dash to Bottom	Total	F/A Burnup MWD/MTU
AB39	B-04	1.344	0.381	1.725	26510
AB21	B-06	1.355	0.400	1.755	27900
AB56	B-08	1.356	0.400	1.756	24600
AB59	B-10	1.374	0.360	1.734	27800
AB54	B-12	1.343	0.421	1.764	26610
AB46	C-05	1.330	0.441	1.771	31210
AA01	C-07	1.367	0.361	1.728	36040
AA47	C-09	1.366	0.421	1.787	36220
AB16	C-11	1.369	0.440	1.809	31380
A315	D-02	1.463	0.481	1.944	26300
AB07	D-04	1.339	0.400	1.739	31490
AA39	D-08	1.371	0.420	1.791	35600
AB22	D-12	1.399	0.400	1.799	31460
AB27	D-14	1.485	0.461	1.946	26580
AB24	E-03	1.348	0.400	1.748	31560
AB13	E-13	1.370	0.461	1.831	31230
AB40	F-02	1.453	0.420	1.873	27700
AA48	F-06	1.357	0.440	1.797	35160
K60	F-08	1.373	0.481	1.854	44090
AA29	F-10	1.358	0.520	1.878	35630
AB33	F-14	1.455	0.500	1.955	27940
AA40	G-03	1.346	0.421	1.767	36050
AA46	G-13	1.387	0.421	1.808	36010
AB05	H-02	1.396	0.440	1.836	24540
AA02	H-04	1.351	0.400	1.751	36200
K56	H-06	1.332	0.441	1.773	43890
K35	H-08	1.400	0.460	1.860	48750
K65	H-10	1.352	0.461	1.813	44080
AA12	H-12	1.351	0.420	1.771	35830
AB06	H-14	1.437	0.400	1.837	24410
AA60	J-03	1.388	0.401	1.789	35890
AA05	J-13	1.386	0.421	1.807	36000
AB32	K-02	1.436	0.440	1.876	28170
AA08	K-06	1.358	0.460	1.818	35060
K19	K-08	1.413	0.501	1.914	43880
AA58	K-10	1.378	0.500	1.878	35390
AB50	K-14	1.434	0.440	1.874	27800
AB64	L-03	1.370	0.441	1.811	31620
AB63	L-13	1.389	0.400	1.789	31320
AB55	M-02	1.505	0.461	1.966	26460
AB30	M-04	1.340	0.440	1.780	31410
AA04	M-08	1.372	0.440	1.812	35620
AB67	M-12	1.339	0.480	1.819	31350
AB09	M-14	1.464	0.421	1.885	26340
AB14	N-05	1.349	0.360	1.709	31300
AA43	N-07	1.347	0.421	1.768	35950

**Unit 1 Rod Drop Timing**  
**November 1996**

<b>F/A #</b>	<b>Core Location</b>	<b>Time to Dash</b>	<b>Time from Dash to Bottom</b>	<b>Total</b>	<b>F/A Burnup MWD/MTU</b>
AA09	N-09	1.388	0.441	1.829	36300
AB60	N-11	1.350	0.381	1.731	31450
AB51	P-04	1.364	0.381	1.745	26080
AB34	P-06	1.354	0.380	1.734	27880
AB08	P-08	1.357	0.400	1.757	24540
AB36	P-10	1.355	0.380	1.735	27940
AB42	P-12	1.345	0.381	1.726	26380

**Unit 2 Rod Drop Timing**  
November 1996

F/A #	Core Location	Time to Dash	Time from Dash to Bottom	Total	F/A Burnup MWD/MTU
X62	B-04	1.484	0.480	1.964	21160
X70	B-06	1.495	0.500	1.995	22050
W34	B-08	1.456	0.540	1.996	32960
X74	B-10	1.474	0.520	1.994	22260
X68	B-12	1.483	0.480	1.963	21280
X22	C-05	1.45	0.500	1.95	26690
X45	C-07	1.447	0.520	1.967	27190
X13	C-09	1.446	0.500	1.946	27510
X30	C-11	1.429	0.500	1.929	27050
X54	D-02	1.503	0.520	2.023	21450
X31	D-04	1.419	0.520	1.939	26680
W 5	D-08	1.431	0.540	1.971	33440
X29	D-12	1.439	0.520	1.959	27310
X69	D-14	1.525	0.540	2.065	21610
X16	E-03	1.448	0.520	1.968	26710
X42	E-13	1.47	0.520	1.99	26750
X61	F-02	1.473	0.500	1.973	22040
W72	F-06	1.437	0.580	2.017	30810
W74	F-08	1.433	0.560	1.993	35650
W21	F-10	1.438	0.540	1.978	30400
X73	F-14	1.515	0.560	2.075	22020
X44	G-03	1.446	0.520	1.966	27390
X 2	G-13	1.447	0.520	1.967	27360
W 1	H-02	1.476	0.580	2.056	32650
W18	H-04	1.451	0.580	2.031	33960
W25	H-06	1.452	0.560	2.012	35850
V45	H-08	1.48	0.540	2.02	40950
W 6	H-10	1.472	0.600	2.072	36030
W50	H-12	1.431	0.580	2.011	33000
W26	H-14	1.497	0.560	2.057	32430
X11	J-03	1.448	0.500	1.948	27370
X20	J-13	1.446	0.480	1.926	27220
X65	K-02	1.516	0.520	2.036	21990
W57	K-06	1.458	0.520	1.978	30510
W38	K-08	1.413	0.520	1.933	36230
W54	K-10	1.458	0.560	2.018	30230
X55	K-14	1.454	0.520	1.974	22030
X33	L-03	1.45	0.500	1.95	26830
X46	L-13	1.489	0.540	2.029	27000
X71	M-02	1.485	0.540	2.025	21040
X14	M-04	1.42	0.520	1.94	26860
W48	M-08	1.452	0.540	1.992	32900
X 9	M-12	1.439	0.520	1.959	27210
X60	M-14	1.484	0.500	1.984	21300
X 6	N-05	1.409	0.500	1.909	26630
X25	N-07	1.447	0.500	1.947	27340

**Unit 2 Rod Drop Timing**  
**November 1996**

<b>F/A #</b>	<b>Core Location</b>	<b>Time to Dash</b>	<b>Time from Dash to Bottom</b>	<b>Total</b>	<b>F/A Burnup MWD/MTU</b>
X21	N-09	1.468	0.520	1.988	27410
X 8	N-11	1.45	0.500	1.95	26670
X57	P-04	1.484	0.500	1.984	21480
X58	P-06	1.474	0.480	1.954	22200
W 3	P-08	1.457	0.560	2.017	32230
X63	P-10	1.455	0.500	1.955	21960
X56	P-12	1.465	0.500	1.965	21410