Duke Energy

H. B. Barron
Vice President

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July 22, 2002

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Subject: Duke Energy Corporation
McGuire Nuclear Station, Units 1 and 2
Docket Numbers 50-369 and 50-370
Technical Specifications Amendment Request for Additional Information (RAI)
Implementation of 10 CFR 50, Appendix J, Option B for Type B and C Testing

Reference: Letter from Mr. H.B. Barron to NRC dated December 7, 2001 (MB3565 and MB3566)

This letter provides additional information that was requested by the NRC staff on June 24, 2002. Attached you will find the excel spreadsheets which contain the ten year historical data for the McGuire penetration leakage rate testing of the containment purge valves associated with the recent License Amendment Request (LAR). The only significant leakage in the last four and a half years has been during the outage after stroking the valves. In these cases the leakage tests are not really surveillance tests, but are functional verifications that the valves are sealed before relying on them for containment isolation during the next fuel cycle.

A new T-ring design implemented for all containment purge valves over several outages has resolved the chronic leakage problems. After implementing the modifications, acceptable valve leakage has been maintained during the following successive cycle until valves are again stroked

A017

in the next outage. The most recent non-outage leakage test failure (Unit 1, 1/29/98) was caused by gasket sealant dripping down onto the valve disc seating surfaces causing non-uniform deformation of the T-ring to seat seal. After diagnosing and resolving the issue, this problem has not recurred.

Leakage testing results of these containment purge valves for the last three cycles has demonstrated acceptable performance. These valves are maintained closed during modes 1 to 4 with power removed and no benefits are realized from on-line leakage testing. Therefore, it is only necessary to perform leakage testing of the containment purge valves during the refueling outages as requested in the LAR.

If you have any questions with respect to this matter, please call Norman T. Simms of Regulatory Compliance at 704-875-4685.

Sincerely yours,

H.B. Barron

Attachments

AFFIDAVIT

H.B. Barron, being duly sworn, states that he is Vice President of Duke Energy Corporation; that he is authorized on the part of said corporation to sign and file with the Nuclear Regulatory Commission these amendments to the McGuire Nuclear Station Facility Operating Licenses Nos. NPR-9 and NPF-17 and associated Technical Specifications; and that all statements and matters set forth within this submittal dated July 22, 2002 are true and correct to the best of his knowledge.

H B Barron

H.B. Barron, Vice President

Subscribed and sworn to me: 7/22/02
Date

Deborah G. Thrap, Notary Public
Deborah G. Thrap

My commission expires: 4/6/2007

SEAL

xc w/attachments:

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C.J. Thomas
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N.T. Simms
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McGuire Master File # 1.3.2.9
Elliott

ATTACHMENTS

McGuire Unit 1 Containment Purge Valve Penetration Leakage History

Penetration	1M-119	1M-138	1M-213	1M-357	1M-367	1M-368	1M-454	1M-455	1M-456
Inside CIV	1VP-15A	1VP-19A	1VP-17A	1VP-7A	1VP-2A	1VP-10A	1VP-4A	1VP-12A	1VP-9A
Outside CIV	1VP-16B	1VP-20B	1VP-18B	1VP-6B	1VP-1B	1VP-11B	1VP-3B	1BP-13B	1VP-8B
4/25/2002	6	38	2	2	2	2	2	2	2
1/31/2002	3.7	7.3	8.1	21	35	86	28	62	6.4
11/8/2001	28	2	2	38	2	2	2	2	10
8/16/2001	2	29	2	6.5	2	5	2	2	4.5
5/24/2001	55	45	2	2	38	88	23	2	18
4/12/2001#	n/a	2	n/a	n/a	3	n/a	n/a	n/a	n/a
4/12/2001#	2	1185	8.5	2	offscale	59	2	133	80.5
12/7/2000	5.3	34	2	2	4	2	2	2	4.8
9/10/2000	2	2	2	2	2	2	2	2	2
6/22/2000	5	34	2	45.8	2	10.8	4.2	16	2
3/30/2000	2.8	6	11.2	7.2	11	25	5.5	2	2.5
1/6/2000	9	35	2	4.6	4	36	7.2	8.5	2
11/1/1999#	n/a	13	6.6	n/a	2	n/a	n/a	154	n/a
10/30/1999#	2	236	900	2	offscale	2	2	offscale	2
10/19/1999#	n/a	n/a	80	n/a	n/a	n/a	n/a	n/a	n/a
7/22/1999	23.7	5.7	8.3	79	7.1	49	4.9	2.5	270
4/29/1999	5.5	2.9	5	38.3	2	2	2	41.2	320
2/4/1999	4.1	8.7	4.4	35.2	3.1	40.1	24.8	2	250
11/12/1998	2	2	2	2	22	2	2	11.5	250
8/20/1998	22.1	12.6	6.4	57.6	17.8	31.6	67.8	56.2	89.6
6/27/1998#	67.4	n/a	n/a	n/a	n/a	n/a	n/a	n/a	129.6
6/24/1998#	n/a	25	2	14	17	40	20	31	650
5/28/1998	2	7	8.8	50.3	2	2	2	47.5	2
3/5/1998	2	14	2	29	2	69	56	48	147
2/5/1998	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	110
2/5/1998	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	96
2/2/1998	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	109.5
1/31/1998	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2250
1/30/1998	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4350
1/29/1998	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	96
1/29/1998	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3400
1/29/1998	9.4	2	2	37	42	6.4	34.5	34	offscale
11/8/1997	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2
11/6/1997	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3500
10/30/1997	2	13.6	5	6.7	2	6.2	15.8	4.8	490
8/7/1997	76	120	12	87	27	2	47	2	2
5/13/1997#	75	71	74	34.6	49.9	32	137	44	81
5/8/1997#	n/a	n/a	n/a	n/a	n/a	2	n/a	n/a	6
5/7/1997#	n/a	n/a	n/a	n/a	n/a	550	175	n/a	n/a
5/6/1997#	n/a	10.5	n/a	9.4	n/a	508	offscale	n/a	offscale
5/6/1997#	41.5	304	24.8	265	116.5	415	offscale	26.8	offscale
5/1/1997#	95.4	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
5/1/1997#	368.6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
4/29/1997#	offscale	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

McGuire Unit 1 Containment Purge Valve Penetration Leakage History

Penetration	1M-119	1M-138	1M-213	1M-357	1M-367	1M-368	1M-454	1M-455	1M-456
Inside CIV	1VP-15A	1VP-19A	1VP-17A	1VP-7A	1VP-2A	1VP-10A	1VP-4A	1VP-12A	1VP-9A
Outside CIV	1VP-16B	1VP-20B	1VP-18B	1VP-6B	1VP-1B	1VP-11B	1VP-3B	1BP-13B	1VP-8B
3/25/1997#	n/a	n/a	n/a	50	n/a	n/a	n/a	n/a	n/a
3/11/1997#	n/a	n/a	n/a	n/a	n/a	n/a	2	n/a	n/a
2/27/1997#	n/a	n/a	n/a	n/a	n/a	n/a	50	n/a	n/a
2/25/1997	n/a	n/a	n/a	n/a	850	n/a	n/a	n/a	n/a
1/23/1997	5.4	2	2.2	6.3	2	59	7.8	2	6
10/24/1996	13.6	2	4.5	6.5	2	3	4.2	2.8	45.3
7/31/1996	91	12	64	17	42	102	137	53	53
4/9/1996	7.7	14.4	29	73.7	6.4	104.6	7.6	25.8	30.7
1/16/1996#	110.6	788	9.3	86	49.1	145	2	114	7.3
9/12/1995	37	21.3	11.6	28	15.3	26.5	7	33.6	2
6/20/1995	32	2	2	22	46	2	4	2	27.6
3/28/1995	2	2	2	2	2	2	2	2	2.6
12/27/1994	2	2	8.2	2	6.8	2	14.8	24.4	2
10/1/1994#	n/a	n/a	n/a	n/a	n/a	30	n/a	n/a	n/a
9/28/1994#	n/a	n/a	n/a	n/a	2.4	offscale	n/a	n/a	n/a
9/27/1994#	n/a	n/a	n/a	n/a	n/a	n/a	2	n/a	n/a
9/26/1994#	71.8	2	2	33.9	n/a	offscale	258	46	2
5/17/1994	13.5	2	32.5	3	2	42.7	2	9.8	2
2/17/1994	n/a	920	n/a	18	47.5	n/a	n/a	708	43
2/17/1994	48	offscale	24.2	125.2	offscale	42.8	60.6	1180	offscale
1/4/1994	36.8	7.5	4.3	3.5	26	60	2	44	83.5
10/15/1993	n/a	n/a	n/a	265	15	30.2	157	n/a	18.2
10/15/1993	10	32	9.5	1900	offscale	offscale	offscale	208	offscale
9/23/1993	n/a	n/a	n/a	n/a	8.2	30.1	5.1	n/a	n/a
9/23/1993	27.2	18	29	15	offscale	offscale	offscale	10	130
5/27/1993#	n/a	n/a	n/a	n/a	18.2	30	n/a	n/a	n/a
5/26/1993#	51.2	8.8	3.8	23.6	offscale	offscale	2	2	8.4
2/23/1993	30.2	78.1	2	45.7	2	36.2	5.2	8.6	5.1
12/1/1992	5.4	70	2	3.1	5.3	7.5	2	12.8	3.8
9/1/1992	2	2	2	2	2	2	41.5	2	20.5
6/12/1992	n/a	n/a	n/a	n/a	22.2	36.8	n/a	n/a	n/a
6/11/1992	5.5	181.5	7.3	113	offscale	offscale	27.8	2	6
2/15/1992	n/a	155	n/a	n/a	n/a	37.9	n/a	n/a	232
2/13/1992	37.5	330	8.4	25.6	130	offscale	30.2	60.1	offscale

Leakage is in sccm (standard cubic centimeters per minute). Lowest measurable leakage is 2 sccm

"Offscale" means the volumetric leak rate test instrument makeup was unable to establish full test pressure

Refueling Outage

McGuire Unit 2 Containment Purge Valve Penetration Leakage History

Penetration	2M-119	2M-138	2M-213	2M-357	2M-367	2M-368	2M-454	2M-455	2M-456
Inside CIV	2VP-15A	2VP-19A	2VP-17A	2VP-7A	2VP-2A	2VP-10A	2VP-4A	2VP-12A	2VP-9A
Outside CIV	2VP-16B	2VP-20B	2VP-18B	2VP-6B	2VP-1B	2VP-11B	2VP-3B	1BP-13B	2VP-8B
6/12/2002	36.2	2	2	2	2	2	31.2	36.1	6.4
3/14/2002#	2	2	2	2	3	24	2	2	10
12/19/2001	38	2	2	25	49	36	2	2	10
10/3/2001	46.5	2	2	2	30	34	37	88.5	2
7/11/2001	35	2	16	36	65	72	19	97	26
4/18/2001	21	2	2	2	3	2	2	2	4.5
1/24/2001	14.5	2	6.9	10.3	15.5	9.2	3.7	2	4.5
11/1/2000	50.2	2	5.9	9.9	2	10.5	44.6	23.8	7.8
10/7/2000#	n/a	2	n/a	n/a	n/a	n/a	2	n/a	n/a
10/6/2000#	n/a	offscale	n/a	n/a	n/a	n/a	offscale	n/a	2
10/5/2000#	12.8	offscale	76.3	9.2	4.8	8.5	offscale	2	offscale
8/9/2000	40	2	36	2	29	2	52.5	2	61
5/17/2000	39	2	2.8	2	29	2	161	31	39
2/23/2000	20	2	25	12	80	85	174	37.5	130
12/1/1999	4	2	4.3	5.3	6.6	11.9	119	33.5	94.2
9/8/1999	59	2	2	2	2	11.3	95	2	2
6/16/1999	41	2	5.4	29.1	70.1	46.4	174	4.5	7.3
4/10/1999#	148.9	3.2	93	142.5	56	47.2	143.1	133.7	73.7
4/6/1999#	73.3	offscale	offscale	54.5	46.6	2	offscale	2	offscale
12/30/1998	48	2	2.5	40	25.6	10.8	13.4	32.4	2
10/7/1998	45.7	2	2	2	31.5	2	179	36	4
7/15/1998	29.3	2	3.1	34	12.5	8.3	166.3	88.1	37.6
5/5/1998	n/a	n/a	8.4	n/a	n/a	n/a	n/a	n/a	n/a
4/22/1998	50.6	13.6	15.6	28.1	14.1	36.4	110	29.2	81.6
1/28/1998	114	2	27	148	2.4	2	172.2	48.1	2
12/16/1997#	10	n/a	n/a	84	20	n/a	n/a	n/a	n/a
12/12/1997#	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2	n/a
12/12/1997#	59	5.6	30	61	47	11.4	130	offscale	49
12/3/1997#	n/a	32	57	n/a	n/a	n/a	n/a	n/a	n/a
11/21/1997#	n/a	n/a	n/a	n/a	165	n/a	n/a	n/a	n/a
11/18/1997#	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2
10/22/1997#	2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
10/21/1997#	n/a	n/a	n/a	n/a	n/a	135	n/a	150	n/a
10/13/1997#	n/a	n/a	n/a	n/a	n/a	n/a	533	n/a	n/a
9/24/1997	61	25	17	25	2	2	40	77	2
8/13/1997	n/a	n/a	n/a	n/a	n/a	n/a	45.5	55	n/a
6/25/1997	n/a	n/a	n/a	n/a	n/a	30.5	n/a	13.4	47.5
6/24/1997	6.1	4.1	10.8	2	2	offscale	2	offscale	offscale
6/4/1997	n/a	n/a	n/a	n/a	n/a	n/a	43	518	n/a
4/23/1997	2	2	2	2	44.5	2	88.6	550	2
3/12/1997	n/a	n/a	n/a	n/a	n/a	n/a	31.5	522	n/a
1/29/1997	n/a	n/a	n/a	n/a	n/a	n/a	30	n/a	n/a
1/29/1997	50	26	50	76	2	58	8300	550	37

McGuire Unit 2 Containment Purge Valve Penetration Leakage History

Penetration	2M-119	2M-138	2M-213	2M-357	2M-367	2M-368	2M-454	2M-455	2M-456
Inside CIV	2VP-15A	2VP-19A	2VP-17A	2VP-7A	2VP-2A	2VP-10A	2VP-4A	2VP-12A	2VP-9A
Outside CIV	2VP-16B	2VP-20B	2VP-18B	2VP-6B	2VP-1B	2VP-11B	2VP-3B	1BP-13B	2VP-8B
10/30/1996	80	20	2	46	56	2	80	430	24
8/7/1996	50	23.5	14	2	49.5	50.5	5	2	39.2
5/9/1996#	n/a	n/a	n/a	n/a	2	n/a	n/a	n/a	n/a
5/8/1996#	n/a	n/a	n/a	n/a	n/a	2	77	100	30
5/7/1996#	152.2	18.6	18.1	15.1	2	offscale	offscale	offscale	417
4/3/1996	n/a	n/a	n/a	n/a	56	n/a	n/a	n/a	n/a
12/27/1995	47.3	13.5	12.3	2	675	30.7	34.8	12.5	39.4
10/4/1995	30.1	11.4	11.8	40.1	62.4	5.7	37.1	2	31.5
7/12/1995	43	2	2	33	55	4.5	20.6	2	2
4/5/1995	2	2	2	2	2	2	39	2	39.5
1/2/1995#	42.5	3.7	34.5	2	7.8	38.5	4.5	92	276
10/19/1994	2	29	36	2	146	35	22	27	1323*
7/20/1994	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	304
7/13/1994	2	14.8	18	8.5	43	9	31	6	n/a
4/13/1994	18	28	21	22	85	2	36	61	63
1/12/1994	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	44
1/12/1994	3.2	10.8	14.6	8.4	390	3	127.3	2	offscale
10/12/1993	n/a	n/a	n/a	2	2	2	n/a	2	105.3
10/11/1993	41.7	27.8	25.4	offscale	offscale	offscale	134.7	offscale	offscale
8/20/1993#	115	30	35	20	28.8	27.2	24.7	57	27.4
2/24/1993	13.9	4.4	7.5	2	2	51.9	10	44	65.1
12/9/1992	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2
12/2/1992	2	19	17	2	17	2	4	6	offscale
9/9/1992	10.1	9.6	10.5	55	43.5	10.5	39.2	2	5.9
6/20/1992	80	22	11	100	40.2	2	2	8.9	85.4

Leakage is in sccm (standard cubic centimeters per minute)
Lowest measurable leakage is 2 sccm
"Offscale" means the volumetric leak rate test instrument makeup was unable to establish full test pressure
* 10/19/94 test of 2VP-8B was snooped/verified not to be leaking.
# Refueling Outage