

April 21, 2004

Diane Curran, Esq.  
Harmon, Curran, Spielberg & Eisenberg, L.L.P.  
1726 M Street, N.W., Suite 600  
Washington, DC 20036

In the Matter of  
DUKE ENERGY CORPORATION  
(Catawba Nuclear Station Units 1 and 2)  
Docket Nos. 50-413-OLA, 50-414-OLA

Dear Ms. Curran,

As agreed on Friday, April 16, 2004, the Staff is providing additional information to supplement the Staff's Response to Blue Ridge Environmental Defense League's First Set of Discovery Requests to the NRC Staff.

The privilege log has been revised and enclosed; each document is now numbered. The privileged documents are 1-4, 11-12, 21, 27-31, 34, and 36. Of these, document 12 was generated by Duke. The others were generated by Framatome. Contact information for officials at Framatome was provided to you via telephone on April 19, 2004 and April 21, 2004.

You also questioned whether documents 9 and 10, the Technical Evaluation Report (Non-Proprietary Version) of BAW-10231P and the Safety Evaluation Report of the Topical Report BAW-10227P, were properly withheld under the deliberative process privilege. As requested, I confirmed that the documents are, in fact, predecisional. Although both documents were drafted by staff members of the Pacific Northwest National Laboratory (PNNL), both documents are subject to the deliberative process privilege because PNNL produced them under contract to the NRC, and the deliberative process privilege includes outside consultants, contractors and subcontractors who are involved in governmental deliberations. *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-773, 19 NRC 1333, 1346 (1984).

In addition, the Staff is revising its answers to General Interrogatories 2 and 3. The Staff hereby adds the following individuals, whose credentials are attached, to the list of expert witnesses who may be called at the hearing:

1. Ralph O. Meyer, Senior Technical Advisor, Safety Margins and Systems Analysis Branch, Division of Systems Analysis and Regulatory Effectiveness, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission. Dr. Meyer has expertise in reactor fuel behavior. He has not served as a witness or given affidavits in prior proceedings within the past four years. If he is called as a witness, Dr. Meyer's testimony will be related to issues raised in Contention I, specifically issues relating to fuel

relocation and to M5 cladding insofar as it is related to MOX fuel. His testimony will address the basis of the Staff's conclusion that use of the MOX LTAs is appropriate. Most of the documents supporting his opinions have been previously provided, and additional documents will be provided when identified by Dr. Meyer.

2. Harold Scott, Nuclear Engineer, Safety Margins and Systems Analysis Branch, Division of Systems Analysis and Regulatory Effectiveness, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission. Mr. Scott has expertise in reactor fuel behavior. He has not served as a witness or given affidavits in other proceedings within the past four years. If he is called as a witness, Mr. Scott's testimony will be related to issues raised in Contention I, specifically issues relating to fuel relocation and to M5 cladding insofar as it is related to MOX fuel. His testimony will address the basis of the Staff's conclusion that use of the MOX LTAs is appropriate. Most of the documents supporting his opinions have been previously provided, and additional documents will be provided when identified by Mr. Scott.

Please contact me if you have any questions regarding these responses.

Sincerely,

**/RA/**

Susan L. Uttal  
Counsel for NRC Staff

cc w/enclosure: David A. Repka, Esq.  
Lisa F. Vaughn, Esq.

w/o enclosure: Service list

**ATTACHMENT C**

**PRIVILEGE LOG**

	<b>Document Description</b>	<b>Document Date</b>	<b>Privilege(s) Asserted</b>
	Documents Responsive to General Interrogatory 3 and General Document Requests 1-3 for Undine Shoop		
1	BAW-10238(P), Revision 1, MOX Fuel Design Report	undated	Proprietary
2	BAW-10238 RAI Response	12/5/03	Proprietary
3	BAW-10238 RAI Response	12/16/03	Proprietary
4	BAW-10238 RAI Response	12/19/03	Proprietary
	Documents Responsive to General Interrogatory 1 and General Document Requests 1-3 for Carl Beyer		
5	Status of PNNL's Review of COPERNIC MOX Applications (Chapter 13 of BAW-10231P)	undated	Deliberative Process
6	Questions on Responses to Outstanding RAIs for COPERNIC MOX Applications Received April 2003	undated	Deliberative Process
7	List of Additional Questions from Review of Chapter 13 of BAW-1231P	undated	Deliberative Process
8	Questions from Review of Chapter 13 of BAW-10231P	undated	Deliberative Process
9	Technical Evaluation Report (Non-Proprietary Version) of BAW-10231P "COPERNIC Fuel Rod Design Computer Code Chapter 13-MOX Applications"	July 2003	Deliberative Process
10	Safety Evaluation Report of the Topical Report BAW-10227P (Evaluation of Advanced Cladding and Structural Material (M5) in PWR Reactor Fuel	October 1999	Deliberative Process
	Documents Responsive to General Interrogatory 3 and General Document Requests 1-3 for R.R. Landry		
11	"Partial Response to Request for Additional Information Regarding the Use of Mixed Oxide Lead Fuel Assemblies," letter from James Mallay to USNRC.	10/3/2003	Proprietary

12	"Response to Request for Additional Information Regarding the Use of Mixed Oxide Lead Fuel Assemblies," letter from H. B. Barron to USNRC.	11/3/2003	Proprietary
Documents Responsive to General Interrogatory 3 and General Document Requests 1-3 for Stephen La Vie			
13	E-mail, "Duke MOX"	3/10/2004	Deliberative Process
14	E-mail, "Re: Duke MOX"	3/1/2004	Deliberative Process
15	E-mail, "RE: MOX ARP libraries	1/7/2004	Deliberative Process
16	E-mail, "Re: MOX LTA Rod internal void volume	12/19/2003	Deliberative Process
17	E-mail, "Re: Fwd: Core avg. LHGR for CATAWBA"	12/16/2003	Deliberative Process
18	E-mail, "Re: Fwd: Core avg. LHGR for CATAWBA"	12/16/2003	Deliberative Process
19	E-mail, "Re MOX source term"	12/2/2003	Deliberative Process
20	E-mail, "Duke Power MOX; Power Histories and other data	11/19/2003	Deliberative Process
Documents General Document Requests 1-3 for Robert Martin			
21	Revised SE for Topical Report BAW-10227P, Evaluation of Advanced Cladding and Structural Material (M5) in PWR Reactor Fuel	2/4/2000	Proprietary
Documents Responsive to General Document Request 3			
22	Memorandum to John A. Nakoski from Frank M. Akstulewicz, "Catawba Nuclear Stations, Units 1 and 2, Request for Exemption Related to Lead Test Assemblies to Permit Use of M5 Cladding Material and Pu-Enriched Mixed Oxide Fuel"	3/4/2004	Deliberative Process

23	Memorandum to John A. Nakoski from Robert L. Denning, "Safety Evaluation Input for Proposed Amendments to the Facility Operating License and Technical Specifications to Allow Insertion of Four Mixed-Oxide Fuel Lead Test Assemblies at Catawba Nuclear Station Units 1 and 2 (TAC Nos MB7863 and MB7864)"	3/4/2004	Deliberative Process
24	Memorandum to John A. Nakoski from Robert L. Denning, "Safety Evaluation Input for Proposed Amendments to the Facility Operating License and Technical Specifications to Allow Insertion of Four Mixed-Oxide Fuel Lead Test Assemblies at Catawba Nuclear Station Units 1 and 2, Revision 1 (TAC Nos MB7863 and MB7864)"	3/22/2004	Deliberative Process
Documents Responsive to Specific Interrogatory 1			
25	E-mail from Carl Beyer to Undine Shoop	4/6/2004	Work Product
26	E-mail from Carl Beyer to Undine Shoop	4/6/2004	Work Product
27	COPERNIC Fuel Rod Design Code, Chapter 13	undated	Proprietary
28	Partial Response to RAI on Chapter 13 of BAW-10231P	4/26/2002	Proprietary
29	Partial Response to RAI on Chapter 13 of BAW-10231P	7/17/2002	Proprietary
30	RAI Response on COPERNIC	7/17/2002	Proprietary
31	Final Responses to RAIs on Chapter 13 of BAW-10231P	4/18/2003	Proprietary
Documents Responsive to Specific Request for Admission 1			
32	E-mail from Ralph Meyer to Undine Shoop	4/1/04	Work Product
Responses to Specific Requests I-2, I-4, I-5, and I-8			
33	R. Meyer notes for EDO staff meeting, "Applicability of 10 CFR 50.46 to M5 and Zirlo Cladding,"	1/19/2001	Deliberative Process
34	T.A. Coleman (Framatome) letter to NRC Document Control Desk, "Oxidation Criteria for LOCA Conditions,"	2/22/2001	Proprietary

35	R. Meyer presentation slides for Zimmerman briefing, "ZIRLO and M5 Reviews"	6/14/2001	Deliberative Process
36	J. F. Mallay (Framatome) Letter to M. Chatterton (NRC), "Translated Viewgraphs from Lyon, France"	7/12/2001	Proprietary
37	R. Meyer presentation slides for Petition Review Board, "LOCA Embrittlement Criteria 50.46(b)(2) Maximum Cladding Oxidation"	3/14/2002	Deliberative Process
Documents Responsive to Specific Document Request II-4			
38	Draft Progress Report on Mixed Oxide (MOX) Versus Low Enriched Uranium (LEU) Fuel Severe Accident Response—Sandia National Laboratory	12/2003	Proprietary; Deliberative Process
39	"Evaluation of the Fission Product Inventory of MOX Lead Test Assemblies" by Stephen F. LaVie	Unknown	Deliberative Process
40	Informal table prepared by Stephen F. LaVie entitled "17x17 PWR Assembly, Curies at Discharge (includes structural material) from Sandia Report"	unknown	Deliberative Process