Southern Nuclear
Operating Company, Inc.
Post Office Box 1295
Birmingham, Alabama 35201-1295

Tel 205.992.5000

SOUTHERN COMPANY
Energy to Serve Your World℠

August 27, 2007

Docket No.: 50-425

NL-07-1628

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

Vogtle Electric Generating Plant – Unit 2
NRC Request Regarding the Spring 2007 Refueling Outage
Reactor Pressure Head Inspection Report

Ladies and Gentlemen:

On August 6, 2007, Southern Nuclear Operating Company (SNC) participated in a telecom with the NRC staff regarding the spring 2007 Vogtle Electric Generating Plant Unit 2 (VEGP-2) reactor pressure vessel (RPV) head inspection report, submitted by SNC on June 21, 2007. The NRC staff requested that SNC provide a table showing the amount of wear on each thermal sleeve and the method used to collect the data. The subject table is contained in Enclosure 1. Enclosure 2 contains the VEGP RPV head layout as a reference.

This letter contains no NRC commitments. If you have any questions, please advise.

Sincerely,

B. J. George
Manager, Nuclear Licensing

BJG/DRG/daj

Enclosures: 1. Plant Vogtle Unit 2 Thermal Sleeve Inspection Data Table
2. Plant Vogtle Unit 2 Reactor Pressure Vessel Head Layout

cc: Southern Nuclear Operating Company
Mr. J. T. Gasser, Executive Vice President
Mr. T. E. Tynan, Vice President – Vogtle
Mr. D. H. Jones, Vice President – Engineering
RType: CVC7000

U. S. Nuclear Regulatory Commission
Dr. W. D. Travers, Regional Administrator
Mr. S. P. Lingam, NRR Project Manager – Vogtle
Mr. G. J. McCoy, Senior Resident Inspector – Vogtle

Vogtle Electric Generating Plant – Unit 2
NRC Request Regarding the Spring 2007 Refueling Outage
Reactor Pressure Head Inspection Report

Enclosure 1

Thermal Sleeve Inspection Data Table

Vogtle Thermal Sleeves (3/29/07)

Quadrant	Pentration Number	Video Review	Eddy Current Results			UT Results			Physical Measurement (in.)
			Position	Max. Length (in.)	Estimated Depth of Wear Scar (in.)	Position	Max. Length (in.)	Estimated Depth of Wear Scar (in.)	
1	64	Severe wear to slight wear	1	0.770	>0.119				0.102
			2		>0.119				
			3		>0.119				0.125
			4		>0.119				
			5		<0.040				0.063
			6		<0.040				
			7		<0.040				0.070
			8		<0.078				
1	52	Severe wear to slight wear	1		<0.020				
			2	0.320	<0.040				
			3		<0.040				
			4		<0.020			0.035	
			5		<0.040				
			6		<0.020				
			7		<0.020				
			8		<0.040				
1	70	Severe wear to slight wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020			0.035	
			5	0.380	<0.020				
			6		N/A				
			7		N/A				
			8		<0.020				
1	34	Severe wear to slight wear	1		<0.020				
			2		<0.040				
			3	0.130	<0.040				
			4		<0.020				
			5		<0.040				
			6		<0.040				
			7		<0.040				
			8		<0.040				
1	46	Severe wear to slight wear	1	0.280	<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020			0.037	
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
1	71	Minimal Wear	1		<0.040				
			2	0.320	<0.040				
			3		<0.020				
			4		<0.020			0.021	
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
1	58	Minimal Wear	1		<0.020				
			2		<0.040				
			3		<0.040				
			4		<0.020			0.060	
			5		<0.040				
			6		<0.020				
			7		<0.040				
			8	0.520	<0.078				
1	16	Minimal Wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4	0.290	<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				

Vogtle Thermal Sleeves (3/29/07)

Quadrant	Pentration Number	Video Review	Eddy Current Results			UT Results			Physical Measurement (in.)
			Position	Max. Length (in.)	Estimated Depth of Wear Scar (in.)	Position	Max. Length (in.)	Estimated Depth of Wear Scar (in.)	
1	40	Minimal Wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020			0.023	
			5		<0.020				
			6	0.500	<0.020				
			7		<0.020				
			8		<0.020				
1	20	Minimal Wear	1	0.420	<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
1	47	Minimal Wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020			0.032	
			5	0.420	<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
1	5	Minimal Wear	1						
			2						
			3						
			4						
			5						
			6						
			7						
			8						
1	4	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5	0.300	<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
1	8	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4	0.120	<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
1	59	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3	0.380	<0.040				
			4		<0.020			0.028	
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
1	35	Almost clean or no wear	1	0.220	<0.020				
			2		<0.020				
			3		<0.040				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
1	1	Almost clean or no wear	1						
			2						
			3						
			4						
			5						
			6						
			7						
			8						

Notes:

Final matrix of thermal sleeve thickness measurements.

This matrix contains eddy current data on 55 thermal sleeves, and UT data on 17 sleeves.

UT data was acquired at 90 points around the thermal sleeves, and only the deepest wear mark was recorded.

Vogtle Thermal Sleeves (3/29/07)

Quadrant	Pentration Number	Video Review	Eddy Current Results			UT Results			Physical Measurement (in.)
			Position	Max. Length (in.)	Estimated Depth of Wear Scar (in.)	Position	Max. Length (in.)	Estimated Depth of Wear Scar (in.)	
2	65	Severe wear to slight wear	1		<0.078				
			2	0.660	<0.119				
			3		<0.078				
			4		<0.040				
			5		<0.040				
			6		<0.040				
			7		<0.040				
			8		<0.040				
2	17	Severe wear to slight wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8	0.280	<0.020				
2	53	Minimal Wear	1		<0.040				
			2		<0.020				
			3		<0.020				
			4		<0.020			0.050	
			5		<0.020				
			6		<0.040				
			7		<0.040				
			8	0.380	<0.078				
2	60	Minimal Wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020			0.025	
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8	0.340	<0.040				
2	72	Minimal Wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.040			0.051	
			5		No Data				
			6		No Data				
			7	0.340	<0.040				
			8		<0.020				
2	21	Minimal Wear	1		<0.040				
			2		<0.040				
			3		<0.040				
			4		<0.040				
			5		<0.040				
			6		<0.020				
			7		<0.040				
			8	0.340	<0.040				
2	14	Minimal Wear	1	0.350	<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
2	36	Almost clean or no wear	1	0.140	<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
2	48	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4	0.060	<0.020			0.035	
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				

Vogtle Thermal Sleeves (3/29/07)

Quadrant	Pentration Number	Video Review	Eddy Current Results			UT Results			Physical Measurement (in.)
			Position	Max. Length (in.)	Estimated Depth of Wear Scar (in.)	Position	Max. Length (in.)	Estimated Depth of Wear Scar (in.)	
2	41	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020			0.019	
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8	0.160	<0.020				
2	9	Almost clean or no wear	1	0.320	<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
2	2	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8	0.180	<0.020				
2	37	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3	0.100	<0.040				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
2	61	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020			0.016	
			5		<0.020				
			6		<0.020				
			7	0.180	<0.020				
			8		<0.020				
2	49	Almost clean or no wear	1	0.440	<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020			0.021	
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
2	73	Almost clean or no wear	1		<0.020				
			2		<0.040				
			3	0.340	<0.040				
			4		<0.020			0.030	
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
2	50	Almost clean or no wear	1		<0.020				
			2		<0.040				
			3	0.380	<0.040				
			4		<0.020			0.044	
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				

Notes:

Final matrix of thermal sleeve thickness measurements.

This matrix contains eddy current data on 55 thermal sleeves, and UT data on 17 sleeves.

UT data was acquired at 90 points around the thermal sleeves, and only the deepest wear mark was recorded.

Vogtle Thermal Sleeves (3/29/07)

Quadrant	Pentration Number	Video Review	Eddy Current Results			UT Results			Physical Measurement (in.)
			Position	Max. Length (in.)	Estimated Depth of Wear Scar (in.)	Position	Max. Length (in.)	Estimated Depth of Wear Scar (in.)	
3	62	Severe wear to slight wear	1		<0.040				
			2		>0.040				
			3		<0.020				
			4		<0.078				
			5	0.800	>0.119				
			6		>0.119				
			7		<0.020				
			8		<0.040				
3	30	Minimal Wear	1	0.340	<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
3	54	Minimal Wear	1		<0.040				
			2		<0.040				
			3		<0.020				
			4		no data				
			5		no data				
			6		<0.040				
			7		<0.040				
			8		<0.020				
3	42	Minimal Wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7	0.300	<0.020				
			8		<0.020				
3	66	Minimal Wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5		<0.020				
			6		no data				
			7	0.360	<0.040				
			8		<0.020				
3	15	Minimal Wear	1						
			2						
			3						
			4						
			5						
			6						
			7	0.320	<0.020				
			8						
3	51	Minimal Wear	1	0.320	<0.020				
			2		<0.020				
			3		<0.040				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
3	67	Minimal Wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.040				
			5		<0.040				
			6		<0.020				
			7	0.400	<0.040				
			8		<0.020				
3	38	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4	0.300	<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				

Vogtle Thermal Sleeves (3/29/07)

Quadrant	Pentration Number	Video Review	Eddy Current Results			UT Results			Physical Measurement (in.)
			Position	Max. Length (in.)	Estimated Depth of Wear Scar (in.)	Position	Max. Length (in.)	Estimated Depth of Wear Scar (in.)	
3	18	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.040				
			8	0.380	<0.040				
3	6	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
3	3	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4	0.200	<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
3	55	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5	0.300	<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
3	31	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7	0.190	<0.020				
			8		<0.020				
3	43	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.040				
			4		<0.020				
			5	0.460	<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				

Notes:

Final matrix of thermal sleeve thickness measurements.

This matrix contains eddy current data on 55 thermal sleeves, and UT data on 17 sleeves.

UT data was acquired at 90 points around the thermal sleeves, and only the deepest wear mark was recorded.

Vogtle Thermal Sleeves (4/01/07)

Quadrant	Pentration Number	Video Review	Eddy Current Results			UT Results			Physical Measurement (in.)
			Position	Max. Length (in.)	Estimated Depth of Wear Scar (in.)	Position	Max. Length (in.)	Estimated Depth of Wear Scar (in.)	
4	63	Severe wear to slight wear	1		<0.119				
			2	0.720	>0.119				
			3		<0.119				
			4		<0.040				
			5		<0.078				
			6		<0.078				
			7		<0.040				
			8		<0.040				
4	32	Minimal Wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7	0.500	<0.020				
			8		<0.020				
4	56	Minimal Wear	1	0.360	<0.040				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
4	39	Minimal Wear	1		<0.020				
			2		<0.020				
			3		<0.040				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
4	19	Minimal Wear	1	0.320	<0.040				
			2		<0.040				
			3		<0.040				
			4		<0.040				
			5		<0.020				
			6		<0.040				
			7		<0.040				
			8		<0.040				
4	69	Minimal Wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8	0.200	<0.020				
4	68	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4	0.340	<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
4	44	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3	0.340	<0.020				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
4	7	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4	0.260	<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				

Vogtle Thermal Sleeves (4/01/07)

Quadrant	Pentration Number	Video Review	Eddy Current Results			UT Results			Physical Measurement (in.)
			Position	Max. Length (in.)	Estimated Depth of Wear Scar (in.)	Position	Max. Length (in.)	Estimated Depth of Wear Scar (in.)	
4	45	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5		<0.020				
			6	0.420	<0.020				
			7		<0.020				
			8		<0.020				
4	57	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4	0.300	<0.020				
			5		<0.020				
			6		<0.020				
			7		<0.020				
			8		<0.020				
4	33	Almost clean or no wear	1		<0.020				
			2		<0.020				
			3		<0.020				
			4		<0.020				
			5		<0.020				
			6		<0.020				
			7	0.520	<0.020				
			8		<0.020				

Notes:

Final matrix of thermal sleeve thickness measurements.

This matrix contains eddy current data on 55 thermal sleeves, and UT data on 17 sleeves.

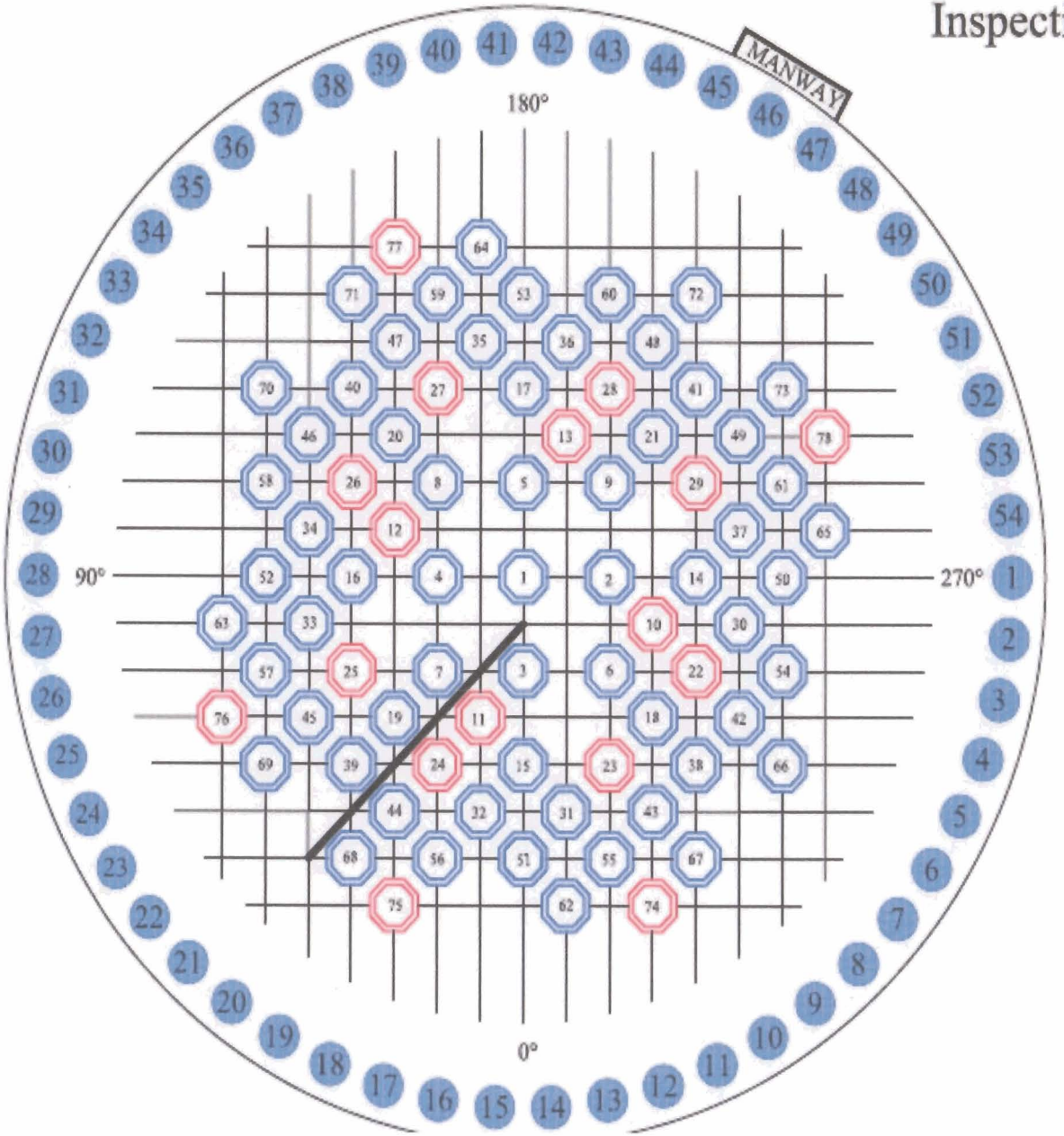
UT data was acquired at 90 points around the thermal sleeves, and only the deepest wear mark was recorded.

Vogtle Electric Generating Plant – Unit 2
NRC Request Regarding the Spring 2007 Refueling Outage
Reactor Pressure Head Inspection Report

Enclosure 2

Reactor Pressure Vessel Head Layout

Vogtle Unit 2 Reactor Vessel Head Inspection Status Map - 2R12



LEGEND

THERMAL SLEEVE (61)

OPEN HOUSING (17)