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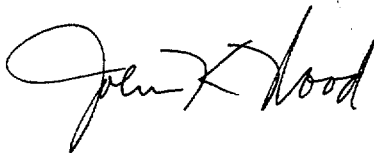
Perry Nuclear Power Plant  
Docket No. 50-440  
Subject: 1999 Annual Report

Ladies and Gentlemen:

Attached is the 1999 Annual Report for the Perry Nuclear Power Plant, Unit 1. This report is submitted in accordance with Technical Specification 5.6.1 and 10CFR50.46 and fulfills ongoing commitments associated with Licensing Commitment 17 of USAR Appendix 1B.

If you have questions or require additional information, please contact Mr. Gregory Dunn, Manager, Regulatory Affairs at (440) 280-5305.

Very truly yours,



Attachment

cc: NRC Project Manager  
NRC Resident Inspector Office  
NRC Region III  
REIRS Project Manager

A001

FIRSTENERGY NUCLEAR OPERATING COMPANY

PERRY NUCLEAR POWER PLANT

January 1, 1999 to December 31, 1999

ANNUAL REPORT TO NRC

DOCKET NUMBER: 50-440

LICENSE NUMBER: NPF-58

Contents

10 CFR 50.46 Reporting of ECCS Errors and Model Changes  
Silicone Sealant Inspections  
Occupational Radiation Exposure Summary Report

10 CFR 50.46 Reporting of ECCS Errors and Model Changes

New errors and changes:

Errors:

One error was reported during 1999 in the SAFER/GESTR model. The error was in the heat transfer area for the vessel heat slabs. The error in the input data file was caused by a logic error in an automated data file generation program. The error reduces Licensing Basis Peak Clad Temperature (PCT) by 20°F.

Changes:

As reported in the Core Operating Limits Report, the methodology used for calculating PCT was changed from SAFE/REFLOOD to SAFER/GESTR. This was submitted in letter PY-CEI/NRR-2397L, dated April 30, 1999.

### Silicone Sealant Inspections

In accordance with Technical Specification 5.6.1 and the ongoing commitment associated with Licensing Commitment 17 of USAR Appendix 1B, Engineering Safety Feature (ESF) ventilation system's duct work silicone sealant was inspected during the seventh refueling outage for degradation.

The duct specimens were individually insitu leak tested at rated pressure in the Intermediate Building 585 foot elevation pipe chase. The Foster 30-02 and GE Silpruf sealant specimens were acceptable with no observable air leaks.

The Annulus Exhaust Gas Treatment, Control Room HVAC, and Fuel Handling Building ventilation systems were walked down and a representative portion of the exposed exterior silicone sealants were visually inspected. The exposed exterior sealant on all ductwork inspected on this walkdown was found to be in good condition with no observable degradation or leakage.

### Occupational Radiation Exposure Summary Report

Attached is the 1999 Annual Occupational Exposure Summary Report for the Perry Nuclear Power Plant as required by Technical Specification 5.6.1

The Special Maintenance category contains the following work activities in accordance with the Updated Safety Analysis Report table 12.4-12, "Occupational Dose Estimates During Special Maintenance":

- Control Rod Drive assembly exchange and repair
- Residual Heat Removal (RHR) (removal of the steam condensing mode of operation)
- Local Power Range repair/replacement
- Reactor Water Cleanup (RWCU) pump repair/replacement
- RWCU valve maintenance
- Turbine inspection and overhaul

The Number of Personnel is based on the number of individuals with greater than 100 mrem on any Radiation Work Permit (RWP) in the corresponding categories. The dose assignments or Total Man-mrem are based on Direct Reading Dosimeter Readings. The Work Category is based on the RWP under which the individual worked and the individual may be counted in more than one category. The Job Category and the Station/Utility/Other is based on personnel record of person signing in on RWP.

**1999 PERRY NUCLEAR POWER PLANT TECHNICAL SPECIFICATION 5.6.1 APPENDIX A REPORT  
(REG GUIDE 1.16 )**

Work & Job Function	Number of Personnel (>100 mrem)			Total Man-mrem		
	Station Employees	Utility Employees	Contract Workers and Others	Station Employees	Utility Employees	Contract Workers and Others
<b>Reactor Operations &amp; Surveillance</b>						
Maintenance Personnel	0	0	0	178	140	16
Operating Personnel	56	0	0	13413	189	97
Health Physicist Personnel	20	2	29	5824	661	8458
Supervisory Personnel	0	0	0	44	0	53
Engineering Personnel	0	0	0	145	26	2
<b>Routine Maintenance</b>						
Maintenance Personnel	104	25	280	28598	7023	94097
Operating Personnel	12	4	16	4962	2044	3484
Health Physicist Personnel	16	1	3	5967	212	1301
Supervisory Personnel	0	0	0	236	60	83
Engineering Personnel	7	2	6	2457	698	2320
<b>Inservice Inspection</b>						
Maintenance Personnel	6	0	145	1141	210	45559
Operating Personnel	1	4	5	549	1016	1667
Health Physicist Personnel	4	0	2	1436	82	499
Supervisory Personnel	0	0	0	36	79	34
Engineering Personnel	2	2	10	758	508	2404
<b>Special Maintenance</b>						
Maintenance Personnel	19	1	82	4671	218	41453
Operating Personnel	4	2	3	1067	689	618
Health Physicist Personnel	3	0	6	1581	12	1463
Supervisory Personnel	0	0	0	11	2	9
Engineering Personnel	0	0	1	128	52	439
<b>Waste Processing</b>						
Maintenance Personnel	0	0	0	225	40	40
Operating Personnel	7	5	1	2095	1392	340
Health Physicist Personnel	1	2	0	636	472	42
Supervisory Personnel	0	0	0	0	0	1
Engineering Personnel	0	0	0	24	1	0
<b>Refueling</b>						
Maintenance Personnel	2	0	75	1248	146	27775
Operating Personnel	5	2	2	1385	659	552
Health Physicist Personnel	4	0	2	865	121	452
Supervisory Personnel	0	0	0	27	110	3
Engineering Personnel	0	0	1	128	73	231
<b>Total</b>						
Maintenance Personnel	131	26	582	36061	7777	208940
Operating Personnel	85	17	27	23471	5989	6758
Health Physicist Personnel	48	5	42	16309	1560	12215
Supervisory Personnel	0	0	0	354	251	183
Engineering Personnel	9	4	18	3640	1358	5396
<b>Grand Total</b>	<b>273</b>	<b>52</b>	<b>669</b>	<b>79835</b>	<b>16935</b>	<b>233492</b>