

A-140

GPC Exh. II-140

DOCKETED
USNRC

AFFIDAVIT OF JOHN G. AUFDENKAMPE, JR.

95 JUL 27 P4:51

I, John G. Aufdenkampe, Jr., being duly sworn, state as follows:

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

1. I am currently employed by Southern Company Services, Inc., as Design Team Leader for the Vogtle Project in Birmingham, Alabama. In 1990, I was employed by Georgia Power Company as the Manager, Technical Support at the Vogtle Electric Generating Plant ("Vogtle"). A summary of my professional experience and qualifications is attached to my Prefiled Testimony on Diesel Generator Reporting Issues as Exhibit A (GPC Exh. 27).

2. I have prepared this affidavit in response to the Licensing Board's request for information regarding calculation of the Safety System Performance Indicator ("SSPI") for Vogtle Emergency AC Power in the 1989-90 time frame. Tr. 4852-53 (May 17, 1995).

3. In 1989, as is still the case today, INPO required the station SSPI for Emergency AC Power to be calculated by taking the average of the individual diesel generator SSPIs. The individual SSPIs are calculated using the following formula:

Unavailable Hours
Hours System Required

"Unavailable Hours" (sometimes referred to as Hours Out of Service ("OOS")) include known unavailable hours (consisting of

NUCLEAR REGULATORY COMMISSION

Docket No. 50-424/425-OLA-3 EXHIBIT NO. GPC II-140

In the matter of Georgia Power Co. et al., Vogtle Units 1 & 2

Staff Applicant Intervenor Other

Identified Received Rejected Reporter KHUW

Date 7/20/95 Witness Mosbaugh

9508140318 950720
PDR ADOCK 05000424
G PDR

planned unavailable hours plus unplanned unavailable hours) and estimated unavailable hours. Planned unavailable hours are hours the diesel generator is removed from service for preventive maintenance activities, surveillance testing, plant modifications, and any other time equipment is electively removed from service and the activity is planned in advance. Unplanned unavailable hours are hours when the diesel generator is out of service for corrective maintenance following a failure or human error and any other known unavailable hours due to unplanned causes. Estimated unavailable hours are the estimated hours the Diesel Generator is in a failed state prior to being discovered by a test or operational demand. The estimated unavailable hours are calculated as 1/2 the duration from the last successful operation or test of the diesel to the time of discovery.

"Hours System Required" is the total number of hours the Diesel Generator is required to be operational during the period of time for which the SSPI is being assessed. Since a Diesel Generator is required for all plant operating modes (i.e., 1 through 6), the "Hours System Required" is equal to the total calendar hours during the assessment period.

4. The SSPI is calculated for each Diesel Generator, and then the station SSPI is calculated by summing the SSPI's for each Diesel Generator and dividing by the total number of Diesel Generators. As an example, assume Vogtle's four Diesel Generators had the following Unavailable Hours for a month with 31 days (i.e.,

744 hours):

Diesel Generator	Unavailable Hours
1A	10
1B	6
2A	4
2B	13

The SSPI for each Diesel Generator and the station would be calculated as shown below:

1A SSPI	$10/744=0.0134$
1B SSPI	$6/744=0.0081$
2A SSPI	$4/744=0.0054$
2B SSPI	$13/744=0.0175$

Station SSPI: $(0.0134+0.0081+0.0054+0.0175)/4 = 0.0111$

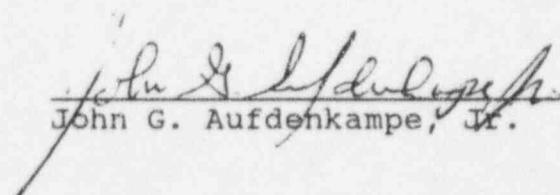
5. The Emergency AC Power SSPI YTD for Vogtle at the end of February 1990, including 353.53 estimated unavailable hours for diesel 2A in January 1990, was 0.0804. See Performance Monitoring letter sent from the Vogtle site to the corporate office, dated March 16, 1990, (Georgia Power letter log number NOTS-00328), attached hereto as Aufdenkampe Exhibit Q, item A.19 (Diesel Generator Reliability).

6. While INPO guidance for 1989 required that estimated unavailable hours be included in the calculation of SSPI, Plant Vogtle personnel identified no estimated unavailable hours for 1989. The calculated Year to Date ("YTD") SSPI for Plant Vogtle at the end of 1989 was 0.0052. See Performance Monitoring letter dated January 11, 1990 (Georgia Power letter log number NOTS-00252), attached hereto as Aufdenkampe Exhibit R, item C.12 (Diesel Generator Reliability).

7. During my testimony at the Vogtle license amendment hearing, I explained my understanding of the reason why estimated unavailable hours were included in the calculation of SSPI beginning in January, 1990. Tr. 4851-54. I was incorrect. That is, there was no change in Vogtle's methodology or in INPO guidelines concerning estimated unavailable hours in the 1989-90 time frame. While there was a change in INPO guidelines issued in 1989, it did not affect the way estimated hours were to be calculated.

8. I do not know why the February 1990 YTD SSPI was not included in the SSPI information which I understand was provided to NRC IIT members in April 1990. I have no recollection of the specific reasons for that decision or who made that decision.

I certify that the foregoing statements are true and correct to the best of my personal knowledge and belief.


John G. Aufdenkampe, Jr.

Sworn to and subscribed before me
this 18th day of July 1995.

Mary N. Bentley
Notary Public

My commission expires:


May 16, 1999

Nuclear Plant Vogtle
Post Office Box 1600
Waynesboro, Georgia 30830
Telephone 404 724-8114
404 554-9961

GPC EXHIBIT
AUFDENKAMPE Q

Nuclear Plant Vogtle




Georgia Power
the southern electric system

DATE: March 16, 1990
RE: VNS-AP-19 Performance Monitoring
Log: NOTS-00328
FROM: G. Bockhold, Jr.
TO: C. K. McCoy

The attached tabulation is in response to your request for performance data input from VEGP for the month of February, 1990.

If you have any questions, please contact J. C. Williams at extension 4279.

JCW
JCW
JCW/GB/chd

G. Bockhold

Attachment

xc: W. F. Kitchens
W. L. Burmeister
J. C. Williams
M. D. Barker
C. C. Tynan
N. O. Superintendents
N. O. Managers
NORMS

PLANT PERFORMANCE INDICATORS

A. OPERATIONS

JANUARY

FEBRUARY

MARCH

1. EQUIVALENT AVAILABILITY FACTOR (%)		
UNIT 1 MONTHLY	92.58	76.06
UNIT 1 YEAR-TO-DATE	92.58	84.74
UNIT 1 ROLLING AVERAGE (12 MONTH)	93.99	93.41
UNIT 2 MONTHLY	97.33	99.83
UNIT 2 YEAR-TO-DATE	97.33	98.52
UNIT 2 ROLLING AVERAGE (12 MONTH)	93.39	94.02
PLANT MONTHLY	94.95	87.94
PLANT YEAR-TO-DATE	94.95	91.63
PLANT ROLLING AVERAGE (12 MONTH)	93.74	85.86
2. UNAVAILABLE GENERATION (HRS)		
a. FORCED OUTAGE		
UNIT 1 MONTHLY	23.70	3.07
UNIT 1 YTD	23.70	26.77
UNIT 2 MONTHLY	0.00	0.00
UNIT 2 YTD	0.00	0.00
b. MAINTENANCE OUTAGE		
UNIT 1 MONTHLY	0.00	0.00
UNIT 1 YTD	0.00	0.00
UNIT 2 MONTHLY	0.00	0.00
UNIT 2 YTD	0.00	0.00
c. PLANNED OUTAGE (BASIC)		
UNIT 1 MONTHLY	0.00	121.93
UNIT 1 YTD	0.00	121.93
UNIT 2 MONTHLY	0.00	0.00
UNIT 2 YTD	0.00	0.00
d. PLANNED OUTAGE (EXTENDED)		
UNIT 1 MONTHLY	0.00	0.00
UNIT 1 YTD	0.00	0.00
UNIT 2 MONTHLY	0.00	0.00
UNIT 2 YTD	0.00	0.00

PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY	MARCH
3. DERATED GENERATION (HOURS)			
a. FORCED			
UNIT 1 MONTHLY	21.92	3.68	
UNIT 1 YTD	21.92	25.60	
UNIT 2 MONTHLY	26.70	0	
UNIT 2 YTD	26.70	26.70	
b. MAINTENANCE			
UNIT 1 MONTHLY	183.65	505.75	
UNIT 1 YTD	183.65	689.40	
UNIT 2 MONTHLY	15.50	0.00	
UNIT 2 YTD	15.50	15.50	
c. PLANNED			
UNIT 1 MONTHLY	21.87	277.52	
UNIT 1 YTD	21.87	299.38	
UNIT 2 MONTHLY	45.83	0.00	
UNIT 2 YTD	45.83	45.83	
4. DERATED GENERATION (MWH)			
a. FORCED			
UNIT 1 MONTHLY	13841.08	1218.75	
UNIT 1 YTD	13841.08	15059.83	
UNIT 2 MONTHLY	727.43	0.00	
UNIT 2 YTD	727.43	727.43	
b. MAINTENANCE			
UNIT 1 MONTHLY	10733.00	19271.25	
UNIT 1 YTD	10733.00	30004.25	
UNIT 2 MONTHLY	10475.83	0.00	
UNIT 2 YTD	10475.83	10475.83	
c. PLANNED			
UNIT 1 MONTHLY	8079.80	18200	
UNIT 1 YTD	8079.80	26279.80	
UNIT 2 MONTHLY	10155.83	0.00	
UNIT 2 YTD	10155.83	10155.83	

PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY	MARCH
5. EQUIVALENT DERATED GENERATION (HRS).			
a. FORCED			
UNIT 1 MONTHLY	12.83	1.13	
UNIT 1 YTD	12.83	13.96	
UNIT 2 MONTHLY	0.66	0.00	
UNIT 2 YTD	0.66	0.66	
b. MAINTENANCE			
UNIT 1 MONTHLY	9.95	17.86	
UNIT 1 YTD	9.95	27.81	
UNIT 2 MONTHLY	9.44	0.00	
UNIT 2 YTD	9.44	9.44	
c. PLANNED			
UNIT 1 MONTHLY	7.49	16.87	
UNIT 1 YTD	7.49	24.36	
UNIT 2 MONTHLY	9.15	0.00	
UNIT 2 YTD	9.15	9.15	
6. GROSS MAXIMUM CAPACITY (MWe)			
UNIT 1	1162	1162	
UNIT 2	1179	1179	
7. GROSS DEPENDABLE CAPACITY (MWe)			
UNIT 1	1160	1109	
UNIT 2	1178	1177	
8. PLANNED ENERGY LOSS (MWh)			
UNIT 1 MONTHLY	0.00	131562.5	
UNIT 1 YTD	0.00	131562.5	
UNIT 2 MONTHLY	0.0	0.0	
UNIT 2 YTD	0.0	0.0	
PLANT MONTHLY	0.0	131562.5	
PLANT YTD	0.00	131562.5	

PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY	MARCH
9. UNIT CAPABILITY FACTOR (%)			
UNIT 1 MONTHLY	92.75	78.57	
UNIT 1 YTD	86.02	78.57	
UNIT 2 MONTHLY	97.41	100.00	
UNIT 2 YTD	98.64	100.00	
PLANT MONTHLY	95.11	89.44	
PLANT YTD	92.42	89.44	
10. UNPLANNED ENERGY LOSS (MWH)			
UNIT 1 MONTHLY	58226.2	23802.5	
UNIT 1 YTD	58226.2	82028.7	
UNIT 2 MONTHLY	21359.1	0.0	
UNIT 2 YTD	21359.1	21359.1	
PLANT MONTHLY	79585.3	23802.5	
PLANT YTD	79585.3	103387.8	
11. UNPLANNED CAPABILITY LOSS FACTOR (%)			
UNIT 1 MONTHLY	7.25	3.28	
UNIT 1 YTD	7.25	5.37	
UNIT 2 MONTHLY	2.59	0.00	
UNIT 2 YTD	2.59	1.36	
PLANT MONTHLY	4.89	1.62	
PLANT YTD	4.89	3.34	
12. REFERENCE ENERGY GENERATION			
UNIT 1 MONTHLY	802776.0	725088.0	
UNIT 1 YTD	802776.0	1527864.0	
UNIT 2 MONTHLY	825840.0	745920.0	
UNIT 2 YTD	825840.0	1571760.0	
PLANT MONTHLY	1628616.0	1471008.0	
PLANT YTD	1628616.0	3099624.0	

PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY	MARCH
13. REACTOR THERMAL ENERGY GENERATED (BTU)			
UNIT 1 MONTHLY	8.102E+12	6.182E+12	
UNIT 1 YTD	8.102E+12	1.428E+13	
UNIT 2 MONTHLY	8.544E+12	7.815E+12	
UNIT 2 YTD	8.544E+12	1.636E+13	
14. HEAT RATE			
BEST DAY DATA			
a. ACTUAL GROSS HEAT RATE (BTU/KWH)			
UNIT 1	10028	10526	
UNIT 2	9879	9870	
b. ACTUAL THERMAL GENERATION (MWh)			
UNIT 1	81828	81760	
UNIT 2	81821	81789	
c. ACTUAL ELECTRICAL GENERATION (MWe)			
UNIT 1	27850	26510	
UNIT 2	28267	28283	
d. CIRCULATING WATER TEMPERATURE (DEG-F)			
UNIT 1	69.9	70.2	
UNIT 2	66.1	63.0	
e. ADJUSTMENT TO ACTUAL GHR (MWe)			
UNIT 1 MONTHLY	-0.46	-0.17	
UNIT 2 MONTHLY	1.48	0.63	
f. POWER LEVEL AT WHICH ACTUAL HR WAS DETERMINED (%)			
UNIT 1	99.97	99.94	
UNIT 2	99.79	100.00	
g. DATE OF BEST DAY DATA			
UNIT 1	01/02/90	02/05/90	
UNIT 2	01/26/90	02/26/90	
ADJUSTED GROSS HEAT RATE (BTU/KWH)			
UNIT 1	10031.9	10527.7	
UNIT 2	9866.8	9864.5	

PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY	MARCH
15. AUTOMATIC REACTOR TRIPS			
a. TOTAL AUTOMATIC REACTOR TRIPS			
UNIT 1 MONTHLY	1	0	
UNIT 1 YTD	1	1	
UNIT 1 CUMULATIVE	20	20	
UNIT 2 MONTHLY	0	0	
UNIT 2 YTD	0	0	
UNIT 2 CUMULATIVE	4	4	
b. AUTOMATIC REACTOR TRIPS/ 1000 CRITICAL HRS.			
UNIT 1	0.9991	0.9725	
UNIT 2	0.6716	0.6035	
c. AUTOMATIC REACTOR TRIPS/ 7000 CRITICAL HRS.			
UNIT 1	6.9938	6.8075	
UNIT 2	4.7015	4.2248	
16. MANUAL REACTOR TRIPS			
UNIT 1 MONTHLY	0	1	
UNIT 1 YTD	0	1	
UNIT 2 MONTHLY	0	0	
UNIT 2 YTD	0	0	
17. UNPLANNED SAFETY SYSTEM ACTUATIONS			
a. EMERGENCY CORE COOLING SYSTEMS			
UNIT 1 MONTHLY	0	0	
UNIT 1 YTD	0	0	
UNIT 2 MONTHLY	0	0	
UNIT 2 YTD	0	0	
b. EMERGENCY POWER			
UNIT 1 MONTHLY	0	0	
UNIT 1 YTD	0	0	
UNIT 2 MONTHLY	0	0	
UNIT 2 YTD	0	0	

PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY
18. SAFETY SYSTEM UNAVAILABILITY		
a. HIGH PRESSURE INJECTION SYSTEM (RHR,SI,CCP)		
UNIT 1 PLANNED HOURS OOS	3.22	52.37
UNIT 1 UNPLANNED HOURS OOS	0.00	0.00
UNIT 1 ESTIMATED HOURS OOS	0.00	0.00
UNIT 1 TOTAL HOURS OOS	3.22	52.37
UNIT 1 SSPI MONTHLY	0.0011	0.0239
UNIT 1 SSPI YTD	0.0011	0.0109
UNIT 2 PLANNED HOURS OOS	0.62	0.00
UNIT 2 UNPLANNED HOURS OOS	0.00	0.00
UNIT 2 ESTIMATED HOURS OOS	0.00	0.00
UNIT 2 TOTAL HOURS OOS	0.62	0.00
UNIT 2 SSPI MONTHLY	0.0002	0.0000
UNIT 2 SSPI YTD	0.0002	0.0001
b. AUXILIARY FEEDWATER SYSTEM		
UNIT 1 PLANNED HOURS OOS	2.72	6.30
UNIT 1 UNPLANNED HOURS OOS	0.00	25.55
UNIT 1 ESTIMATED HOURS OOS	0.00	0.00
UNIT 1 TOTAL HOURS OOS	2.72	31.85
UNIT 1 SSPI MONTHLY	0.0012	0.0194
UNIT 1 SSPI YTD	0.0012	0.0090
UNIT 2 PLANNED HOURS OOS	1.12	1.02
UNIT 2 UNPLANNED HOURS OOS	0.00	0.00
UNIT 2 ESTIMATED HOURS OOS	0.00	0.00
UNIT 2 TOTAL HOURS OOS	1.12	1.02
UNIT 2 SSPI MONTHLY	0.0005	0.0005
UNIT 2 SSPI YTD	0.0005	0.0005

PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY	MARCH
19. DIESEL GENERATOR RELIABILITY			
PLANT SSPI MONTHLY	0.1429	0.0112	
PLANT SSPI YTD	0.1429	0.0804	
a. DIESEL GENERATOR 1A			
SSPI FOR MONTHLY	0.0017	0.0019	
SSPI FOR YTD	0.0017	0.0018	
START DEMANDS	2	5	
START FAILURES	0	0	
LOAD-RUN DEMANDS	2	4	
LOAD-RUN FAILURES	0	0	
PLANNED HRS OOS	1.30	1.27	
UNPLANNED KNOWN HRS OOS	0.00	0.00	
ESTIMATED HRS OOS	0.00	0.00	
HOURS OF OPERATION	3.52	44.4	
FAILURE DATES	N/A	N/A	
b. DIESEL GENERATOR 1B			
SSPI FOR MONTHLY	0.0229	0.0006	
SSPI FOR YTD	0.0229	0.0123	
START DEMANDS	4	5	
START FAILURES	0	0	
LOAD-RUN DEMANDS	3	4	
LOAD-RUN FAILURES	1	0	
PLANNED HRS OOS	0.40	0.38	
UNPLANNED KNOWN HOURS OOS	16.63	0.00	
ESTIMATED HOURS OOS	0.00	0.00	
HOURS OF OPERATION	4.65	35.74	
FAILURE DATES	1/3/90	N/A	
c. DIESEL GENERATOR 2A			
SSPI FOR MONTHLY	0.5110	0.0375	
SSPI FOR YTD	0.5110	0.2863	

PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY	MARCH
19. c. DIESEL GENERATOR 2A (CONT.)			
START DEMANDS	7	8	
START FAILURES	2	0	
LOAD-RUN DEMANDS	3	5	
LOAD-RUN FAILURES	0	1	
PLANNED HOURS OOS	1.92	24.80	
UNPLANNED KNOWN HOURS OOS	24.90	0.37	
ESTIMATED HOURS OOS	353.35	0.00	
HOURS OF OPERATION	6.02	9.06	
FAILURE DATES	1/24/90 1/25/90	2/1/90	
d. DIESEL GENERATOR 2B			
SSPI FOR MONTHLY	0.0359	0.0047	
SSPI FOR YTD	0.0359	0.0211	
START DEMANDS	4	2	
START FAILURES	0	0	
LOAD-RUN DEMANDS	3	2	
LOAD-RUN FAILURES	0	0	
PLANNED HOURS OOS	3.33	3.18	
UNPLANNED KNOWN HOURS OOS	23.35	0.00	
ESTIMATED HOURS OOS	0.00	0.00	
HOURS OF OPERATION	6.54	4.19	
FAILURE DATES	N/A	N/A	
B. ENGINEERING			
1. ACTIVE DESIGN CHANGE REQUESTS			
UNIT 1 MONTHLY	220	223	
UNIT 1 YTD AVG.	220	222	
UNIT 2 MONTHLY	52	58	
UNIT 2 YTD AVG.	52	55	
2. OUTSTANDING AS-BUILT NOTICES			
CRITICAL	29	21	
NON-CRITICAL	1264	1359	

PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY	MARCH
C. MAINTENANCE			
1. CORRECTIVE MWO'S COMPLETED			
UNIT 1 MONTHLY	224	149	
UNIT 1 YTD	224	373	
UNIT 2 MONTHLY	138	89	
UNIT 2 YTD	138	227	
PLANT	362	238	
PLANT YTD	362	600	
TOTAL MANHOURS	2213.5	2033.5	
TOTAL MANHOURS YTD	2213.5	4247	
2. OUTAGE WORK COMPLETED			
UNIT 1	4	89	
UNIT 1 YTD	4	93	
UNIT 2	10	1	
UNIT 2 YTD	10	11	
PLANT	14	90	
PLANT YTD	14	104	
TOTAL MANHOURS MONTHLY	131.0	679.0	
TOTAL MANHOURS YTD	131.0	110.0	
3. NON-OUTAGE CORRECTIVE MWO'S OUTSTANDING			
UNIT 1	510	521	
UNIT 2	325	324	
PLANT	835	845	
4. OUTAGE CORRECTIVE MWO'S OUTSTANDING			
UNIT 1	618	667	
UNIT 2	250	250	
PLANT	868	926	

PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY	MARCH
5. CORRECTIVE MWO'S OUTSTANDING LESS THAN THREE MONTHS OLD			
UNIT 1	NOT REQUIRED	NOT REQUIRED	
UNIT 2	NOT REQUIRED	NOT REQUIRED	
PLANT	NOT REQUIRED	NOT REQUIRED	
6. SCHEDULED PREDICTIVE MAINT. TASKS COMPLETED			
UNIT 1 MONTHLY	70	37	
UNIT 1 YTD	70	107	
UNIT 2 MONTHLY	40	34	
UNIT 2 YTD	40	74	
PLANT MONTHLY	110	71	
PLANT YTD	110	181	
TOTAL MANHOURS MONTHLY	410.0	480.0	
TOTAL MANHOURS YTD	410.0	890.0	
7. PREDICTIVE MAINT. TASKS NOT COMPLETED WITHIN ALLOWABLE INTERVAL			
UNIT 1 MONTHLY	35	39	
UNIT 1 QUARTERLY	35	74	
UNIT 2 MONTHLY	35	42	
UNIT 2 QUARTERLY	35	77	
PLANT MONTHLY	70	81	
PLANT QUARTERLY	70	151	
8. UNSCHEDULED PREDICTIVE MAINTENANCE COMPLETED (MANHOURS)			
PLANT MONTHLY	120.0	120.0	
PLANT YTD	120.0	240.0	
9. PERIODIC MWO'S COMPLETED			
UNIT 1 MONTHLY	95	79	
UNIT 1 YTD	95	174	
UNIT 2 MONTHLY	37	44	
UNIT 2 YTD	37	81	
PLANT MONTHLY	132	123	
PLANT YTD	132	255	
TOTAL MANHOURS MONTHLY	709.0	819.7	
TOTAL MANHOURS YTD	709.0	1528.7	

PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY	MARCH
10. PERIODIC MWO'S NOT COMPLETED WITHIN ALLOWABLE INTERVAL			
UNIT 1 MONTHLY	0	1	
UNIT 1 QUARTERLY	0	1	
UNIT 2 MONTHLY	0	0	
UNIT 2 QUARTERLY	0	0	
PLANT MONTHLY	0	1	
PLANT QUARTERLY	0	1	
11. PLANNED MAINTENANCE COMPLETED MANHOURS			
PLANT MONTHLY	847.0	1469.5	
PLANT YTD	847.0	2316.5	
12. MWO'S ON-HOLD FOR SPARE PARTS			
UNIT 1 MONTHLY	79	56	
UNIT 1 YTD AVG.	79	68	
UNIT 2 MONTHLY	30	26	
UNIT 2 YTD AVG.	30	28	
PLANT MONTHLY	109	82	
PLANT YTD AVG.	109	96	
13. TECH SPEC SURVEILLANCES COMPLETED			
UNIT 1 MONTHLY	439	399	
UNIT 1 YTD	439	838	
UNIT 2 MONTHLY	311	253	
UNIT 2 YTD	311	564	
PLANT MONTHLY	750	963	
PLANT YTD	750	1713	
TOTAL MANHOURS MONTHLY	6896.2	3478.8	
TOTAL MANHOURS YTD	6896.2	10374.9	
14. CONTROL ROOM INSTRUMENTS OUT OF SERVICE			
UNIT 1 MONTHLY	38	34	
UNIT 2 MONTHLY	28	28	

PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY	MARCH
D. RADIOLOGICAL SAFETY			
1. PERSONNEL RADIATION EXPOSURE (MANREM)			
a. DOSIMETER MONTHLY	1.84	47.717	
b. DOSIMETER YTD	1.84	49.56	
c. TLD MONTHLY	1.64	NOT AVAIL.	
d. TLD YTD	1.64	1.64	
NOTE: DECEMBER 89 ACTUAL TLD = 0.198			
2. SKIN/CLOTHING CONTAMINATION			
a. MONTHLY	1	15	
b. YTD	1	16	
3. BODY COUNTS > REPORTING LVL 1			
a. MONTHLY	0	0	
b. YTD	0	0	
4. BODY COUNTS > REPORTING LVL 2			
a. MONTHLY	0	0	
b. YTD	0	0	
5. EXPOSURE GREATER THAN 5 REM/YEAR			
a. UTILITY PERSONNEL			
MONTHLY	0	0	
YTD	0	0	
b. CONTRACT PERSONNEL			
MONTHLY	0	0	
YTD	0	0	
6. SOLIDS SHIPPED (CU-M)			
a. DRY ACTIVE WASTE	10.45	0.00	
b. RESIN, SLUDGE, BOTTOMS & OTHERS	5.72	3.75	
c. TOTAL RADIOACTIVE WASTE MONTHLY	16.17	3.75	
d. TOTAL RADIOACTIVE WASTE YTD	16.17	19.92	

PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY	MARCH
7. SOLIDS GENERATED (CU-M)			
a. DRY ACTIVE WASTE 1987+1988+1989 = 101.76	0.00	0.00	
b. RESIN, SLUDGE, BOTTOMS & OTHERS 1987+1988+1989 = 63.18	0.00	0.00	
c. TOTAL RADIOACTIVE WASTE MONTHLY	0.00	0.00	
d. TOTAL RADIOACTIVE WASTE YTD 1987+1988+1989 = 164.88	0.00	0.00	
8. TEMPORARY STORAGE (CU-M)			
a. DRY ACTIVE WASTE	0.00	0.00	
b. RESIN, SLUDGE, BOTTOMS & OTHERS	0.00	0.00	
c. TOTAL RADIOACTIVE WASTE MONTHLY	0.00	0.00	
d. TOTAL RADIOACTIVE WASTE YTD	0.00	0.00	
9. FUEL RELIABILITY (MICROCURIES/ML)			
a. FUEL RELIABILITY INDICATOR			
1.) IODINE - 131			
UNIT 1 MONTHLY	2.138E-04	1.893E-04	
UNIT 2 MONTHLY	2.222E-04	2.255E-04	
2.) IODINE - 134			
UNIT 1 MONTHLY	5.012E-03	5.063E-03	
UNIT 2 MONTHLY	7.033E-03	7.580E-03	
3.) PURIFICATION CONS. (SEC-1)			
UNIT 1 MONTHLY	1.762E-05	1.762E-05	
UNIT 2 MONTHLY	1.604E-05	1.583E-05	
4.) POWER LEVEL AT WHICH FRI INFORMATION WAS OBTAINED			
UNIT 1 MONTHLY	100%	100%	
UNIT 2 MONTHLY	100%	100%	
b. ESTIMATED NUMBER OF FAILED FUEL RODS (FFR)			
UNIT 1 MONTHLY	1	1	
UNIT 2 MONTHLY	0	0	

PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY	MARCH
c. MOST RECENT CONFIRMED NUMBER OF FFR			
UNIT 1	1	1	
UNIT 2	0	0	
d. DATE LAST POWER OPERATION w/FFR			
UNIT 1	1/31/90	2/23/90	
UNIT 2	N/A	N/A	
e. TECHNIQUE THAT IDENTIFIED FAILURE			
UNIT 1	5 (I-131/I-133 RATIO) 5 (I-131/I-133 RATIO)		
UNIT 2	N/A	N/A	
f. CAUSE OF FAILURE			
UNIT 1	7	7	
UNIT 2	N/A	N/A	
g. FAILED FUEL ROD CYCLE			
UNIT 1	1	1	
UNIT 2	N/A	N/A	
10. RADIATION OCCURRENCE REPORTS			
MONTHLY	0	0	
YTD TOTAL	0	0	
E. CHEMISTRY PARAMETERS			
1. PERFORMANCE INDEX			
UNIT 1 MONTHLY	0.125	0.138	
UNIT 1 YTD AVG.	0.125	0.132	
UNIT 2 MONTHLY	0.176	0.145	
UNIT 2 YTD AVG.	0.176	0.161	
2. % OF TIME AUX COOLING OUT OF SPEC			
UNIT 1 MONTHLY	0.50%	0.00%	
UNIT 1 YTD AVG.	0.50%	0.25%	
UNIT 2 MONTHLY	0.00%	0.00%	
UNIT 2 YTD AVG.	0.00%	0.00%	

PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY	MARCH
3. CONDENSATE PUMP DISCHARGE DISSOLVED OXYGEN (PPB)			
UNIT 1 MONTHLY	2.60	2.50	
UNIT 1 YTD AVG.	2.60	2.55	
UNIT 2 MONTHLY	2.90	2.60	
UNIT 2 YTD AVG.	2.90	2.75	
4. CONDENSER AIR IN-LEAKAGE (SCFM)			
UNIT 1 MONTHLY	32.00	31.00	
UNIT 1 YTD AVG.	32.00	31.50	
UNIT 2 MONTHLY	19.00	17.00	
UNIT 2 YTD AVG.	19.00	18.00	
5. STEAM GENERATOR BLOWDOWN CATION CONDUCTIVITY (MICRO S/CM)			
UNIT 1 MONTHLY	0.135	0.165	
UNIT 1 YTD AVG.	0.135	0.150	
UNIT 2 MONTHLY	0.253	0.216	
UNIT 2 YTD AVG.	0.253	0.235	
6. STEAM GENERATOR CHLORIDE (ppb)			
UNIT 1 MONTHLY	1.30	1.30	
UNIT 1 YTD AVG.	1.30	1.30	
UNIT 2 MONTHLY	1.60	1.90	
UNIT 2 YTD AVG.	1.60	1.75	
7. STEAM GENERATOR SULFATE (ppb)			
UNIT 1 MONTHLY	1.70	1.50	
UNIT 1 YTD AVG.	1.70	1.60	
UNIT 2 MONTHLY	1.90	1.50	
UNIT 2 YTD AVG.	1.90	1.70	
8. STEAM GENERATOR SODIUM (ppb)			
UNIT 1 MONTHLY	0.90	1.30	
UNIT 1 YTD AVG.	0.90	1.10	
UNIT 2 MONTHLY	2.00	0.90	
UNIT 2 YTD AVG.	2.00	1.45	

PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY	MARCH
F. ADMINISTRATIVE PARAMETERS			
1. NRC VIOLATIONS			
a. LEVEL I	0	0	
b. LEVEL II	0	0	
c. LEVEL III	0	0	
d. LEVEL IV	1	2	
e. LEVEL V	0	0	
f. TOTAL VIOLATIONS MONTHLY	1	2	
g. TOTAL VIOLATIONS OPEN	49	45	
2. LICENSEE EVENT REPORTS			
a. PERSONNEL ERRORS			
UNIT 1	1	0	
UNIT 2	0	0	
b. DESIGN ERRORS			
UNIT 1	0	0	
UNIT 2	0	0	
c. EXTERNAL CAUSES			
UNIT 1	0	0	
UNIT 2	0	0	
d. DEFECTIVE PROCEDURES			
UNIT 1	0	1	
UNIT 2	0	0	
e. MANAGEMENT/QA DEFICIENCY			
UNIT 1	0	0	
UNIT 2	0	0	
f. OTHER			
UNIT 1	0	0	
UNIT 2	0	0	
g. TOTAL LER'S			
UNIT 1	1	1	
UNIT 2	0	0	

PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY	MARCH
3. SAFETY			
LOST TIME ACCIDENTS			
a. MONTHLY	0	0	
b. YTD	0	0	
WORK RELATED FATALITIES			
a. MONTHLY	0	0	
b. YTD	0	0	
RESTRICTED WORK ACCIDENTS			
a. MONTHLY	0	0	
b. YTD	0	0	
TOTAL MANHOURS WORKED			
a. UNIT 1 ST			
MONTHLY	43551.75	51679.00	
YTD	43551.75	95230.75	
b. UNIT 1 OT			
MONTHLY	3399.25	8897.00	
YTD	3399.25	12296.25	
c. UNIT 2 ST			
MONTHLY	20044.25	27702.00	
YTD	20044.25	47746.25	
d. UNIT 2 OT			
MONTHLY	2150.75	2184.00	
YTD	2150.75	4334.75	
e. GENERAL ST			
MONTHLY	102698.00	94233.00	
YTD	102698.00	196931.00	
f. GENERAL OT			
MONTHLY	5880.50	8362.00	
YTD	5880.50	14242.50	

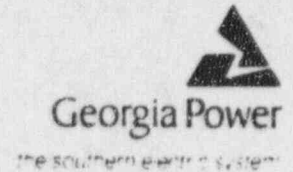
PLANT PERFORMANCE INDICATORS

	JANUARY	FEBRUARY	MARCH
4. MEDICAL ATTENTIONS			
MEDICAL ATTENTIONS MONTHLY	1	1	
MEDICAL ATTENTIONS YTD	1	2	
5. ABSENTEEISM			
a. SICK HOURS			
SICK HRS/PERSON MONTHLY	2.84	2.3	
SICK HRS/PERSON YTD AVG	2.84	2.58	
b. PERSONAL HOURS			
PERSONAL HOURS MONTHLY	1.67	1.09	
PERSONAL HRS/PERSON YTD AVG.	1.67	1.38	

Nuclear Plant Vogtle
Post Office Box 1600
Waynesboro, Georgia 30830
Telephone 404 724-8114
404 554-9961

GPC EXHIBIT _____
AUFDENKAMPE R

Nuclear Plant Vogtle



DATE: January 11, 1990
RE: VNS-AP-19 Performance Monitoring
Log: NOTS-00252
FROM: G. Bockhold, Jr.
TO: C. K. McCoy

The attached tabulation is in response to your request for performance data input from VEGP for the month of December, 1989.

If you have any questions, please contact J. C. Williams at extension 4279.

Amc 1/11
5
JCW/GB/chd

Allen L. Moroney for EB

Attachment

xc: W. F. Kitchens
W. L. Burmeister
J. C. Williams
M. D. Barker
C. C. Tynan
N. O. Superintendents
N. O. Managers
NORMS

PLANT PERFORMANCE INDICATORS

	AVE/YTD	Oct-89	Nov-89	Dec-89
<u>A. OPERATIONS</u>				
1. ADJUSTED NET ELECTRICAL ENERGY (MWH)				
UNIT 1	8,726,069	681,140	768,940	822,960
UNIT 2	5,561,283	659,096	762,869	766,136
2. EQUIVALENT AVAILABILITY FACTOR (%)				
UNIT 1 MONTHLY	NA	83.87	98.33	100.00
UNIT 1 YEAR-TO-DATE	NA	90.51	91.21	91.96
UNIT 1 ROLLING AVERAGE (12 MONTH)	NA	82.58	90.56	91.96
UNIT 2 MONTHLY	NA	79.72	95.92	91.59
UNIT 2 YEAR-TO-DATE	NA	92.53	93.05	92.85
UNIT 2 ROLLING AVERAGE	NA	92.53	93.05	92.85
PLANT MONTHLY	NA	81.80	97.13	95.80
PLANT YEAR-TO-DATE	NA	91.22	91.89	92.30
PLANT ROLLING AVERAGE	NA	85.68	91.43	92.30
3. EQUIVALENT FORCED OUTAGE FACTOR (%)				
UNIT 1 MONTHLY	NA	14.06	0.00	0.00
UNIT 1 YEAR-TO-DATE	NA	6.62	6.02	5.51
UNIT 1 ROLLING AVERAGE (12 MONTH)	NA	6.53	6.52	5.51
UNIT 2 MONTHLY	NA	3.16	2.50	7.44
UNIT 2 YEAR-TO-DATE	NA	2.34	2.36	3.06
UNIT 2 ROLLING AVERAGE	NA	2.34	2.36	3.06
PLANT MONTHLY	NA	8.61	1.25	3.72
PLANT YEAR-TO-DATE	NA	5.11	4.67	4.57
PLANT ROLLING AVERAGE	NA	5.22	5.07	4.57

PLANT PERFORMANCE INDICATORS

	AVE/YTD	Oct-89	Nov-89	Dec-89
4. REACTOR CRITICAL (HOURS)				
UNIT 1 MONTHLY	8412.98	658.05	720.00	744.00
UNIT 2 MONTHLY	5211.61	629.52	708.10	721.70
5. GENERATOR ON-LINE (HOURS)				
UNIT 1 MONTHLY	8277.17	640.24	720.00	744.00
UNIT 2 MONTHLY	5106.24	609.65	702.00	688.60
6. UNAVAILABLE GENERATION (HRS)				
a. FORCED OUTAGE				
UNIT 1 MONTHLY	482.83	104.76	0.00	0.00
UNIT 2 MONTHLY	165.94	23.57	17.98	55.37
b. MAINTENANCE OUTAGE				
UNIT 1 MONTHLY	0.00	0.00	0.00	0.00
UNIT 2 MONTHLY	0.00	0.00	0.00	0.00
c. PLANNED OUTAGE (BASIC)				
UNIT 1 MONTHLY	0.00	0.00	0.00	0.00
UNIT 2 MONTHLY	141.54	100.55	0.00	0.00
d. PLANNED OUTAGE (EXTENDED)				
UNIT 1 MONTHLY	0.00	0.00	0.00	0.00
UNIT 2 MONTHLY	11.23	11.23	0.00	0.00
7. DERATED GENERATION (HOURS)				
a. FORCED				
UNIT 1 MONTHLY	938.44	0.00	45.10	0.00
UNIT 2 MONTHLY	168.06	0.00	2.57	0.00

PLANT PERFORMANCE INDICATORS

	AVE/YTD	Oct-89	Nov-89	Dec-89
b. MAINTENANCE				
UNIT 1 MONTHLY	0.00	0.00	0.00	0.00
UNIT 2 MONTHLY	88.37	0.00	88.37	0.00
c. PLANNED				
UNIT 1 MONTHLY	160.02	52.24	19.93	0.00
UNIT 2 MONTHLY	97.73	38.88	39.40	19.45
8. DERATED GENERATION (MWH)				
a. FORCED				
UNIT 1 MONTHLY	196,578.76	0.00	10,642.36	0.00
UNIT 2 MONTHLY	37,863.11	0.00	107.45	0.00
b. MAINTENANCE				
UNIT 1 MONTHLY	0.00	0.00	0.00	0.00
UNIT 2 MONTHLY	2,819.44	0.00	2,819.44	0.00
c. PLANNED				
UNIT 1 MONTHLY	44,953.92	16,618.10	2,391.80	0.00
UNIT 2 MONTHLY	34,244.38	17,086.10	9,429.70	7,728.58
9. EQUIVALENT DERATED GENERATION (HOURS)				
a. FORCED				
UNIT 1 MONTHLY	179.84	0.00	9.83	0.00
UNIT 2 MONTHLY	34.96	0.00	0.10	0.00
b. MAINTENANCE				
UNIT 1 MONTHLY	0.00	0.00	0.00	0.00
UNIT 2 MONTHLY	2.60	0.00	2.60	0.00

PLANT PERFORMANCE INDICATORS

	AVE/YTD	Oct-89	Nov-89	Dec-89
c. PLANNED HOURS				
UNIT 1 MONTHLY	41.51	15.34	2.21	0.00
UNIT 2 MONTHLY	31.63	15.78	8.71	7.14
10. REACTOR THERMAL ENERGY GENERATED (BTU)				
UNIT 1 MONTHLY	9.41E+13	7.31E+12	8.16E+12	8.65E+12
UNIT 2 MONTHLY	5.87E+13	6.94E+12	8.02E+12	7.97E+12
11. REACTOR THERMAL ENERGY GENERATED (MWH)				
UNIT 1 MONTHLY	27,557,754.0	2,142,954.0	2,391,716.0	2,535,607.00
UNIT 2 MONTHLY	17,207,113.0	2,034,639.0	2,350,213.0	2,335,572.00
12. GROSS ELECTRICAL GENERATION (MWH)				
UNIT 1 MONTHLY	9,161,520.0	714,730	805,480	860,950
UNIT 2 MONTHLY	5,813,966.0	689,256	798,539	801,186
13. STATION SERVICE (MWH)				
UNIT 1 MONTHLY	450,910	38,640	36,540	36,760
UNIT 2 MONTHLY	265,590	35,770	36,480	36,440
14. OPERATIONAL HEAT RATE (BTU/KWH)				
GROSS HEAT RATE				
UNIT 1	NA	10232.5	10,134.2	10047.0
12 MONTH ROLLING AVERAGE	NA	10163.2	10,160.8	10163.7
UNIT 2	NA	10074.0	10,044.9	9947.8
ROLLING AVERAGE	NA	10066.6	10,063.5	10,049.00
15. AUTOMATIC REACTOR TRIPS				
UNIT 1 MONTHLY	2	1	0	0
UNIT 2 MONTHLY	4	1	0	1

PLANT PERFORMANCE INDICATORS

	AVE/YTD	Oct-89	Nov-89	Dec-89
16. UNPLANNED MANUAL REACTOR TRIPS				
UNIT 1 MONTHLY	3	0	0	0
UNIT 2 MONTHLY	1	0	1	0
17. UNPLANNED SAFETY SYSTEM ACTUATIONS (EMERGENCY CORE COOLING SYSTEMS)				
UNIT 1	0	0	0	0
UNIT 2	0	0	0	0
18. UNPLANNED SAFETY SYSTEM ACTUATIONS (EMERGENCY POWER)				
UNIT 1	0	0	0	0
UNIT 2	2	1	0	0
19. SAFETY SYSTEM UNAVAILABILITY EST/KNOWN HOURS OUT-OF-SERVICE				
a. HIGH PRESSURE INJECTION SYSTEM (RHR, SI, CCP)				
UNIT 1 (HOURS)/PLANNED	166.89	43.43	0.10	33.93
(HOURS)/UNPLANNED	0.00	0.00	0.00	0.0
UNIT 1 (SSPI)	0.0050	0.0165	0.00	0.0114
UNIT 2 (HOURS)/PLANNED	24.32	1.66	6.07	3.17
(HOURS)/UNPLANNED	0.00	0.00	0.00	0.0
UNIT 2 (SSPI)	0.0012	0.0007	0.0021	0.0011
b. AUXILIARY FEEDWATER SYSTEM				
UNIT 1 (HOURS)/PLANNED	147.24	0.00	28.40	4.44
(HOURS)/UNPLANNED	102.38	0.00	0.00	0.0
UNIT 1 (SSPI)	0.0099	0.0000	0.0131	0.0020
UNIT 2 (HOURS)/PLANNED	9.17	0.43	0.80	1.81
(HOURS)/UNPLANNED	9.04	9.04	0.00	0.0
UNIT 2 (SSPI)	0.0012	0.0050	0.0004	0.0008
20. CONTROL ROOM INSTRUMENTS OUT OF SERVICE				
UNIT 1	33	36	38	48
UNIT 2	27	28	29	41

PLANT PERFORMANCE INDICATORS

	AVE/YTD	Oct-89	Nov-89	Dec-89
<u>B. ENGINEERING</u>				
1. ACTIVE DESIGN CHANGE REQUESTS (EACH)	(AVG)			
UNIT 1	234	249	255	206
UNIT 2	42	55	63	44
2. OUTSTANDING AS-BUILT NOTICES	(AVG)			
UNIT 1	800	1075	1125	1140
UNIT 2	87	112	122	117
3. NPRDS FAILURE REPORTS				
UNIT 1	107	8	4	6
UNIT 2	32	10	3	0
4. DEFICIENCY REPORTS				
UNIT 1	83	6	6	8
UNIT 2	85	4	6	1
<u>C. MAINTENANCE</u>				
1. CORRECTIVE MWO'S COMPLETED				
UNIT 1	3,596	253	253	220
UNIT 2	1344	232	144	172
PLANT	4,940	485	397	392
TOTAL MANHOURS	51,735.0	4902.0	4453.0	3335.0
2. OUTAGE WORK COMPLETED				
UNIT 1	250	48	16	1
UNIT 2	110	84	2	5
PLANT	360	132	18	6
TOTAL MANHOURS	4,299	1582	378	29.0

PLANT PERFORMANCE INDICATORS

	AVE/YTD	Oct-89	Nov-89	Dec-89
3. HIGHEST PRIORITY CORRECTIVE MWO'S COMPLETED				
UNIT 1	3	1	0	0
UNIT 2	1	0	0	0
PLANT	4	1	0	0
TOTAL MANHOURS	66	12	0	0
4. NON-OUTAGE CORRECTIVE MWO'S OUTSTANDING (AVG)				
UNIT 1	604	507	441	519
UNIT 2	2087	332	350	365
PLANT	778	839	791	884
5. OUTAGE CORRECTIVE MWO'S OUTSTANDING (AVG)				
UNIT 1	356	344	438	511
UNIT 2	1471	171	225	233
PLANT	479	515	663	744
6. CORRECTIVE MWO'S OUTSTANDING LESS THAN THREE MONTHS OLD (AVG)				
UNIT 1	301	298	257	300
UNIT 2	1459	232	240	240
PLANT	422	530	497	540
7. PREVENTIVE & PREDICTIVE MWO'S COMPLETED				
UNIT 1 MONTHLY	2,079	152	186	132
UNIT 2 MONTHLY	580	67	100	52
PLANT MONTHLY	2,659	219	286	184
TOTAL MANHOURS	26,872.6	1664.5	2136.0	1118.5

PLANT PERFORMANCE INDICATORS

	AVE/YTD	Oct-89	Nov-89	Dec-89
8. PREVENTIVE MWO'S NOT COMPLETED WITHIN ALLOWABLE INTERVAL	(AVG)			
UNIT 1 MONTHLY	15	5	0	1
UNIT 2 MONTHLY	5	0	1	2
PLANT MONTHLY	16	5	1	3
9. MWO'S ON-HOLD FOR SPARE PARTS	(AVG)			
UNIT 1 MONTHLY	72	59	54	56
UNIT 2 MONTHLY	283	39	44	33
PLANT MONTHLY	96	98	98	89
10. TECH SPEC SURVEILLANCES COMPLETED				
UNIT 1 MONTHLY	4,089	425	334	378
UNIT 2 MONTHLY	2,259	328	269	289
PLANT MONTHLY	6,348	753	603	667
TOTAL MANHOURS	32,608.53	6,000.90	4,546.19	4,032.66
11. CONDUCT OF MAINTENANCE				
a. NORMAL HOURS		REFER TO ATTACHMENT 1		
b. OVERTIME HOURS		REFER TO ATTACHMENT 1		
c. RADIATION EXPOSURE, DOSIMETER (MAN-REM)		REFER TO ATTACHMENT 2		
d. RADIATION EXPOSURE, TLD (MAN-REM)		REFER TO ATTACHMENT 2		
e. LOST TIME ACCIDENTS		REFER TO ITEM E. 4		

PLANT PERFORMANCE INDICATORS

	AVE/YTD	Oct-89	Nov-89	Dec-89
12. DIESEL GENERATOR RELIABILITY (PLANT SSPI)	0.0052	0.0003	0.0076	0.0175
a. DIESEL GENERATOR 1A (SSPI) FOR 1A	0.0058	0.0000	0.0280	0.0009
START DEMANDS	21	1	1	1
START FAILURES	0	0	0	0
LOAD-RUN DEMANDS	18	1	1	1
LOAD-RUN FAILURES	0	0	0	0
PLANNED HRS OUT-OF-SERVICE	49.68	0.00	20.15	0.68
UNPLANNED HRS OUT-OF-SVC.	0.00	0.00	0.00	0.00
HOURS OF OPERATION	34.91	2.78	1.70	2.05
FAILURE DATES	NA	NA	NA	NA
b. DIESEL GENERATOR 1B (SSPI) FOR 1B	0.0131	0.0000	0.0010	0.0538
START DEMANDS	19	1	1	1
START FAILURES	0	0	0	0
LOAD-RUN DEMANDS	18	1	1	1
LOAD-RUN FAILURES	1	0	0	0
PLANNED HRS OUT-OF-SERVICE	99.82	0.00	0.70	40.00
UNPLANNED HRS OUT-OF-SVC	35.32	0.00	0.00	0.00
HOURS OF OPERATION	32.30	1.57	2.05	2.22
FAILURE DATES	NA	NA	NA	NA

PLANT PERFORMANCE INDICATORS

	AVE/YTD	Oct-89	Nov-89	Dec-89
c. DIESEL GENERATOR 2A (SSPI) FOR 2A	0.0015	0.0022	0.0014	0.0026
START DEMANDS	11	2	2	1
START FAILURES	0	0	0	0
LOAD-RUN DEMANDS	10	1	2	1
LOAD-RUN FAILURES	0	0	0	0
PLANNED HRS OUT-OF-SERVICE	12.73	1.63	1.00	1.93
UNPLANNED HRS OUT-OF-SVC.	0.00	0.00	0.00	0.00
HOURS OF OPERATION	25.65	2.58	4.57	2.00
FAILURE DATES	NA	NA	NA	NA
d. DIESEL GENERATOR 2B (SSPI) FOR 2B	0.0019	0.0010	0.0015	0.0153
START DEMANDS	10	1	1	2
START FAILURES	0	0	0	0
LOAD-RUN DEMANDS	9	1	1	1
LOAD-RUN FAILURES	0	0	0	0
PLANNED HRS OUT-OF-SERVICE	6.95	0.77	1.05	1.80
UNPLANNED HRS OUT-OF-SVC	9.62	0.00	0.00	9.62
HOURS OF OPERATION	16.59	2.25	1.93	2.23
FAILURE DATES	NA	NA	NA	NA

D. RADIOLOGICAL SAFETY

1. PERSONNEL RADIATION EXPOSURE (MANREM)				
a. DOSIMETER	39.524	7.785	1.925	1.05
b. TLD (PREVIOUS MONTH)	30.811	3.479	6.653	1.342
2. SKIN/CLOTHING CONTAMINATION	72	11	5	1
3. BODY COUNTS > REPORTING LVL 1	0	0	0	0
4. BODY COUNTS > REPORTING LVL 2	0	0	0	0

PLANT PERFORMANCE INDICATORS

	AVE/YTD	Oct-89	Nov-89	Dec-89
5. SOLIDS SHIPPED (CU-M) **	TOTAL			
a. DRY ACTIVE WASTE	70.04	18.31	4.88	0.45
b. RESIN, SLUDGE & BOTTOMS	30.17	9.47	0.00	0.00
c. OIL AND OTHER	0.00	0.00	0.00	0.00
d. FILTERS	0.00	0.00	0.00	0.00
e. TOTAL RADIOACTIVE WASTE	100.21	27.78	4.88	0.45
SOLIDS GENERATED (CU-M) **	TOTAL			
a. DRY ACTIVE WASTE 1987+1988 = 78.06	101.70	18.31	4.88	0.45
b. RESIN, SLUDGE & BOTTOMS 1987+1988 = 36.92	55.79	5.72	0.00	0.00
c. OIL AND OTHER 1987+1988 = 0.00	0.00	0.00	0.00	0.00
d. FILTERS 1987+1988 = 7.39	7.39	0.00	0.00	0.00
e. TOTAL RADIOACTIVE WASTE 1987+1988 =122.37	164.88	24.03	4.88	0.45
TEMPORARY STORAGE (CU-M) **	TOTAL			
a. DRY ACTIVE WASTE	47.00	0.00	0.00	0.00
b. RESIN, SLUDGE & BOTTOMS	25.73	0.00	0.00	0.00
c. OIL AND OTHER	0.00	0.00	0.00	0.00
d. FILTERS	7.22	0.00	0.00	0.00
e. TOTAL RADIOACTIVE WASTE PER MONTH	79.95	0.00	0.00	0.00
6. GASES RELEASED (CURIES)				
UNIT 1 MONTHLY	199.68	17.44	14.50	15.27
UNIT 2 MONTHLY	75.16	15.65	3.68	27.22
7. LIQUID WASTE DISCHARGED (CURIES)				
UNIT 1 MONTHLY	2.64E-01	3.63E-02	3.53E-02	1.28E-02
UNIT 2 MONTHLY	5.03E-02	1.93E-02	7.56E-03	1.63E-02

PLANT PERFORMANCE INDICATORS

	AVE/YTD	Oct-89	Nov-89	Dec-89
8. FUEL RELIABILITY (MICROCURIES/ML) (AVERAGE)				
a. IODINE - 131				
UNIT 1	1.76E-04	1.96E-04	1.96E-04	1.97E-04
UNIT 2	1.85E-04	2.48E-04	2.08E-04	2.11E-04
b. IODINE - 134				
UNIT 1	4.11E-03	4.79E-03	4.34E-03	4.50E-03
UNIT 2	5.16E-03	6.52E-03	6.35E-03	6.74E-03
c. PURIFICATION CONS. (SEC-1).				
UNIT 1	1.77E-05	1.76E-05	1.76E-05	1.76E-05
UNIT 2	1.54E-05	1.56E-05	1.59E-05	1.61E-05
9. CHEMISTRY PARAMETERS				
a. PERFORMANCE INDEX (AVERAGE)				
UNIT 1	0.18	0.17	0.22	0.11
UNIT 2	0.23	0.21	0.18	0.15
b. AUX COOLING OUT OF SPEC (AVERAGE)				
UNIT 1	1.98	0.00	0.80	0.80
UNIT 2	2.27	1.40	3.50	0.00
c. CONDENSATE PUMP DISCHARGE DISSOLVED OXYGEN (PPB) (AVERAGE)				
UNIT 1	4.53	4.10	6.30	2.20
UNIT 2	3.61	3.80	3.30	3.50
d. CONDENSER AIR IN-LEAKAGE (SCFM) (AVERAGE)				
UNIT 1	23.56	27.00	28.00	30.00
UNIT 2	14.11	14.00	18.00	19.0

PLANT PERFORMANCE INDICATORS

	AVE/YTD	Oct-89	Nov-89	Dec-89
e. STEAM GENERATOR BLOWDOWN CATION CONDUCTIVITY (MICRO S/CM)	(AVERAGE)			
UNIT 1	0.160	0.140	0.144	0.120
UNIT 2	0.352	0.262	0.234	0.197
f. STEAM GENERATOR CHLORIDE (ppb)	(AVERAGE)			
UNIT 1	2.26	1.7	2.2	1.40
UNIT 2	2.71	2.40	1.80	1.20
g. STEAM GENERATOR SULFATE (ppb)	(AVERAGE)			
UNIT 1	1.42	1.30	1.70	1.40
UNIT 2	2.43	1.70	1.50	1.10
h. STEAM GENERATOR SODIUM (ppb)	(AVERAGE)			
UNIT 1	1.42	1.90	1.90	0.60
UNIT 2	2.26	2.70	2.10	0.70
10. RADIATION OCCURRENCE REPORTS	16	1	2	0

E. ADMINISTRATIVE PARAMETERS

1. NRC VIOLATIONS

a. LEVEL I	0	0	0	0
b. LEVEL II	0	0	0	0
c. LEVEL III	0	0	0	0
d. LEVEL IV	28	1	2	1
e. LEVEL V	1	0	0	0
f. TOTAL VIOLATIONS	29	1	2	1

2. NRC OPEN ITEMS

	(AVERAGE)			
a. TOTAL OPEN	58	52	56	54
b. OPENED THIS MONTH	6	1	14	1

PLANT PERFORMANCE INDICATORS

	AVE/YTD	Oct-89	Nov-89	Dec-89
c. CLOSED THIS MONTH	8	0	11	4
d. IN PROGRESS (TO CLOSE)	39	31	26	35
e. MANAGEMENT ATTENTION	0	0	2	0
3. LICENSEE EVENT REPORTS				
a. PERSONNEL ERRORS				
UNIT 1	12	0	0	1
UNIT 2	10	1	0	2
b. DESIGN ERRORS				
UNIT 1	11	1	0	0
UNIT 2	12	0	2	1
c. EXTERNAL CAUSES				
UNIT 1	0	0	0	0
UNIT 2	0	0	0	0
d. DEFECTIVE PROCEDURES				
UNIT 1	4	0	1	0
UNIT 2	8	0	0	1
e. MANAGEMENT/QA DEFICIENCY				
UNIT 1	1	0	0	0
UNIT 2	0	0	0	0
f. OTHER				
UNIT 1	4	0	1	0
UNIT 2	2	0	0	0
g. TOTAL LER'S				
UNIT 1	32	1	2	1
UNIT 2	32	1	2	4

PLANT PERFORMANCE INDICATORS

	AVE/YTD	Oct-89	Nov-89	Dec-89
4. LOST-TIME ACCIDENTS				
a. TOTAL LOST-TIME ACCIDENTS	0	0	0	0
b. TOTAL MANHOURS WORKED				
1) UNIT 1 ST	942,278	47,232	42,218	57,492
2) UNIT 1 OT	41,950	2,962	2,623	4,891
3) UNIT 2 ST	789,858	38,274	35,009	43,360
4) UNIT 2 OT	48,607	6,644	2,748	4,385
5) GENERAL ST	709,018	93,567	95,866	168,677
6) GENERAL OT	46,950	4,651	7,190	15,166
5. MEDICAL ATTENTIONS	17	1	2	1
6. ABSENTEEISM	(AVERAGE)			
SICK HRS/PERSON	2.87	2.21	1.99	3.03
PERSONAL HRS/PERSON	1.42	1.40	1.44	1.81

PLANT PERFORMANCE INDICATORS

(ATTACHMENT 1)

Performance Indicator Data
"Maintenance Conduct of Operations"

	OCTOBER "A" Straight Time	NOVEMBER "A" Straight Time	DECEMBER "A" Straight Time
1) MECHANICS AND FOREMAN	15,930	15,207	20,921
2) ELECTRICIANS AND FOREMAN	11,830	11,195	13,817
3) INSTRUMENT AND CONTROLS TECHNICIANS	10,694	10,535	13,417
4) SUPERVISORS AND MANAGERS	273	331	350
5) NON-STATION COMPANY EMPLOYEES	0	0	0
6) CONTRACT PERSONNEL	13,827	13,590	19,401
7) MAINTENANCE OTHER	2,893	2,929	3,578
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8) TOTAL MAINTENANCE	55,447	53,787	71,484
	OCTOBER "B" Overtime	NOVEMBER "B" Overtime	DECEMBER "A" Overtime
1) MECHANICS AND FOREMAN	2,836	364	1,202
2) ELECTRICIANS AND FOREMAN	1,126	762	374
3) INSTRUMENT AND CONTROLS TECHNICIANS	1,639	872	2,292
4) SUPERVISORS AND MANAGERS	2	1	2
5) NON-STATION COMPANY EMPLOYEES	0	0	0
6) CONTRACT PERSONNEL	2,436	585	715
7) MAINTENANCE OTHER	103	165	36
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8) TOTAL OVERTIME MAINTENANCE	8,142	2,749	4,621

PLANT PERFORMANCE INDICATORS

(ATTACHMENT 2)

RADIATION EXPOSURE FOR ROUTINE
PLANT MAINTENANCE (REM)

JOB CLASSIFICATION	OCTOBER	NOVEMBER (REVISED)	DECEMBER (ESTIMATE)
1) MECHANICS AND FOREMAN	0.831	0.019	0.022
2) ELECTRICIANS AND FOREMAN	0.016	0.000	0.033
3) INSTRUMENT AND CONTROLS TECHNICIANS	0.226	0.079	0.037
4) SUPERVISORS AND MANAGERS	0.209	0.000	0.001
5) NON-STATION COMPANY EMPLOYEES	0.000	0.002	0.000
6) CONTRACT PERSONNEL	1.359	0.126	0.034
7) HEALTH PHYSICS	0.966	0.021	0.018
8) OPERATIONS	0.140	0.027	0.029
<hr/> TOTAL (REM)	<hr/> 3.747	<hr/> 0.274	<hr/> 0.174
 NO.OF MAINTENANCE UTILITY PERSONEL > 5REM/YEAR	 0	 0	 0
 NO.OF MAINTENANCE CONTRACT PERSONEL > 5REM/YEAR	 0	 0	 0