PSEG

Public Service Electric and Gas Company P.O. Box 236 Hancocks Bridge, New Jersey 08038-0236

Nuclear Business Unit

October 22, 1998

New Jersey Department of
Environmental Protection
Division of Water Quality
Bureau of Permit Management
CN029
Trenton, NJ 08625-0029
Certified Mail Number P 461 187 841

NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM
DISCHARGE MONITORING REPORTS
SALEM GENERATING STATION
PERMIT NO. NJ0005622

Attached is the Discharge Monitoring Report for Salem Generating Station containing the information as required in Permit No. NJ0005622 for the month of September, 1998.

This report is required by and prepared specifically for the Environmental Protection Agency (EPA) and the New Jersey Department of Environmental Protection (NJDEP). It presents only the observed results of measurements and analyses required to be performed by the above agencies. The choice of the measurement devices and analytical methods is controlled by EPA and NJDEP, not by the company, and there are limitations on the accuracy of such measurement devices and analytical techniques even when used and maintained as required. Accordingly, this report is not intended as an assertion that any instrument has measured, or any reading or analytical result represents, the true value with absolute accuracy, nor is it an endorsement of the suitability of any analytical or measurement procedure.

Sincerely,

Martin J. Trum
General Manager - (Acting)
Salem Operations

Attachments

C00037

IE25

C Executive Director - DRBC
USNRC - Document Control Desk Unit#1-50-272 Unit#2-50-311
General Manager - Salem Operations
Director - Licensing, Regulation, and Fuels
M. Vaskis
D. Hurka
J. Schloss
Central Record Facility
E. Keating

NJPDES Report
Explanation of Deviations
September, 1998

The following explanations are included to clarify possible deviations from permit conditions.

General - The columns labeled, "No. Ex. " on the enclosed DMR, tabulate the number of daily discharge values outside the indicated limits.

Data reporting and accuracy reflect the working environment, the design capabilities and reliability of the monitoring instruments and operating equipment.

All reported concentrations are based on daily discharge values.

Total residual chlorine is performed three times per week during chlorination unless otherwise indicated.

Analytical values which are less than detectable are reported as zero unless otherwise indicated.

Analytical results for all parameters other than pH, temperature, TSS, TRC and Bioassay results are provided by Raytheon Environmental Services Laboratory. (NJDEP certification 77343) or South Jersey Testing Laboratory (NJDEP certification 06431). Bioassay results are provided by New England Bioassay, Inc. (NJDEP certification 46405).

Net negative discharge values are reported as negative.

489C- Flow thru outfall 489 is calculated based on Oil Water Separator Lift Pump run times.

481-486 - Chlorination of the circulation water system normally does not occur except as otherwise noted. Service water system chlorination is normally continuous and is monitored on the circulating water system outfall.

Chlorination of both systems will be indicated by results reported for both and represents their combined effect upon the circulating water outfall.

NJPDES Report
Explanation of Deviations
September, 1998

48C - Non-Radioactive Liquid Waste - This system continues to be operated in a batch mode to treat for hydrazine and ammonia by the addition of sodium hypochlorite. No hydrazine has been discharged from this outfall during the reporting period. Residual chlorine is monitored at the outfalls of DSN's 481, 482, 484, and 485, and has not exceeded the permit limits at these outfalls.

The following excursions are included in the attached report and are explained below. Excursions have not endangered nor significantly impacted public health or the environment.

DSN NO.	EXPLANATION
	None

COUNTY OF SALEM
STATE OF NEW JERSEY

I, Martin J. Trum, of full age, being duly sworn according to law, upon my oath depose and say:

1. I am General Manager (Acting) of Salem Generating Station, and as such, am authorized to sign Discharge Monitoring Reports submitted to the New Jersey Department of Environmental Protection pursuant to the Station's New Jersey Pollutant Discharge Elimination System permit.
2. I have reviewed the attached Discharge Monitoring Reports. Pursuant to N.J. A. C. 7:14A-2.4, I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that based on my inquiry of those individuals responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.
3. The signature on the attached Discharge Monitoring Reports is my signature and I am submitting this affidavit in satisfaction of the requirement that my signature be notarized.

Martin J. Trum
General Manager – (Acting)
Salem Operations

Sworn and subscribed before me
this 22 day of Oct 1998

Notary Public
My Commission Expires Dec 30 1998

PSE&G

MAPLEWOOD TESTING SERVICES REPORT

TO: Dave Hurka
Sr. Staff Engineer - Nuclear
PSE&G

September 29, 1998
Report No.TP98012

SUBJECT: **DETERMINATION OF CIRCULATING WATER FLOW AT SALEM GENERATING STATION - UNIT NO.1**

CONDUCTED BY: Victor Simpson
Sr. Test Engineer, Maplewood Testing Services

PURPOSE

To determine the flow capacities of the Unit No.1 circulating water pumps.

SUMMARY

On September 22 and 23, 1998 the Mechanical Division of Maplewood Testing Services conducted a series of test runs at Salem Unit No.1 to determine the capacities of the 11A, 11B, 12A, 12B, 13A and 13B (CMS designations H, J, K, M, L and A respectively) circulating water pumps.

Final test results are shown in Table 1 and Figure 1.

DISCUSSION

Discharge pressures could not be measured at the pump due to plugged feeler lines. The total dynamic heads reported were calculated using the pressures measured at the inlet water boxes which were lower than the pump discharge pressures. The difference in pressure is a result of losses in the piping between the pumps and the waterboxes.

Dave Hurka
Sr. Staff Engineer - Nuclear
PSE&G

September 29, 1998
Report No.TP98012

TEST METHOD

The circulating water flow rate was determined by fluorometry using MTS Mechanical Division Procedure Mech-40 "Determination of Water Flow Using The Turner Fluorometer". Rhodamine WT dye was injected into the bell mouth of each pump using ½ inch PVC pipe with a carrier flow of screen wash water at 3 gallons per minute. The dye was injected at a known rate using a peristaltic pump and a class A burette to measure rate. The diluted sample was retrieved and monitored by taking a sample from the inlet water box piping. The ratio of the injected concentration to the sampled concentration multiplied by the injection flow rate yielded the circulator flow rate.

The total dynamic head was obtained by measuring the pump suction head in feet from elevation 100 and the pump discharge head in feet of water at the water box inlet. After correcting for elevation the total dynamic head was calculated as the pump discharge head minus the pump suction head.

Senior Supervising Test Engineer
Mechanical Division

Manager
Mechanical Division

cc M. Welker
F. Todd

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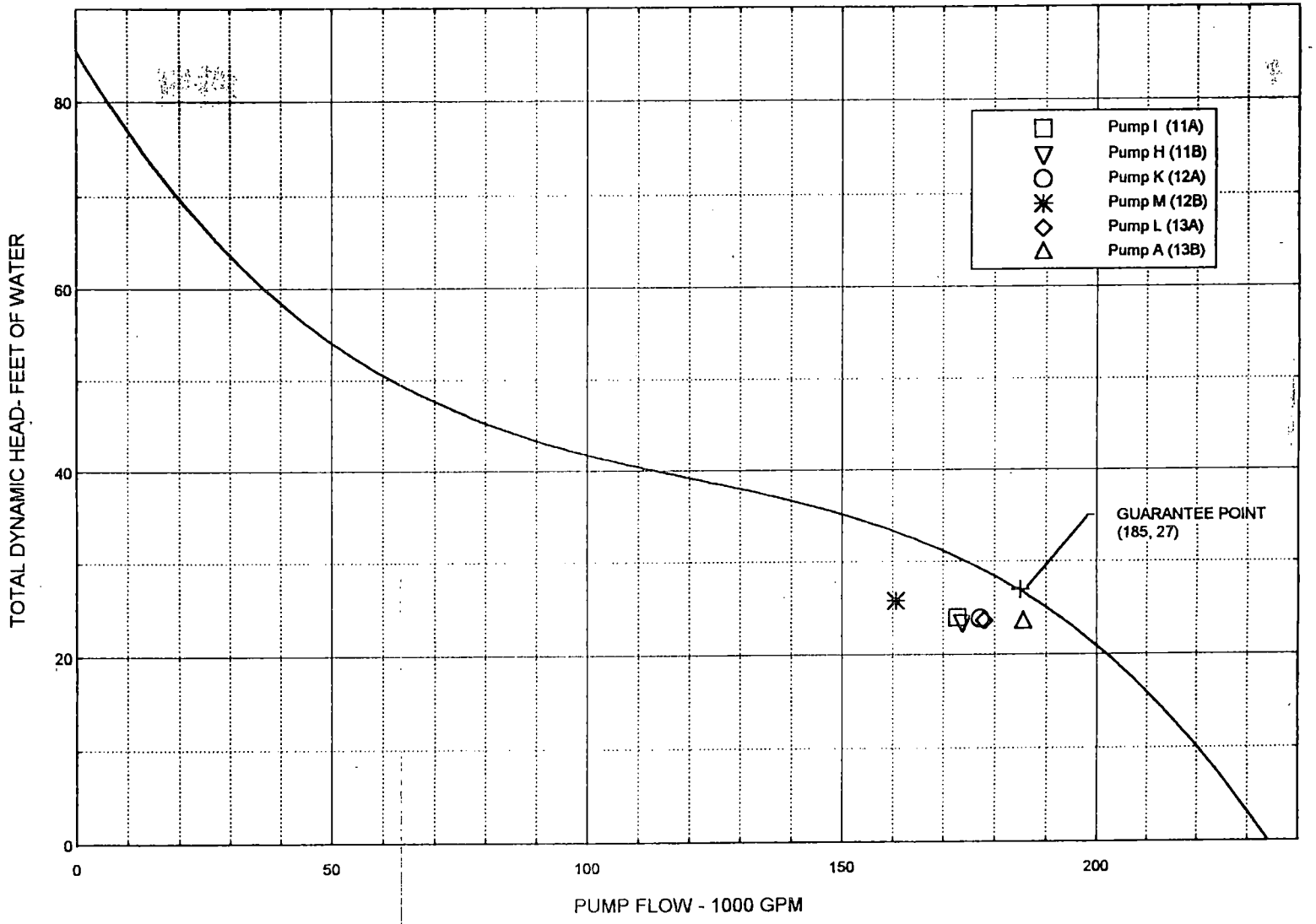
SALEM GENERATING STATION - UNIT NO.1
TOTAL DYNAMIC HEAD VS. CIRCULATING WATER PUMP FLOW



PSE&G
Maplewood Testing Services
Report No. TP98012 September 1998

GSALEM

FIGURE 1

Table 1
Salem Generating Station
Circulating Water Pump Flow Test

Maplewood Testing Services
Mechanical Division

Report Number TP98012

SUMMARY OF TEST RESULTS

Pump No.	CMS Pump Desig.	Test Date	Measured Pump Capacity (gpm)	Pump Suction Head (ft h2o)	Pump Discharge Head (ft h2o)	Total Dynamic Head (ft h2o)
11A	H	09/22/98	172,745	-7.6	16.4	24.0
11B	J	09/22/98	173,715	-8.8	14.7	23.5
12A	K	09/22/98	177,225	-9.4	14.5	23.9
12B	M	09/22/98	160,638	-10.1	15.7	25.8
13A	L	09/23/98	177,993	-10.0	13.7	23.7
13B	A	09/23/98	185,494	-8.2	15.3	23.5

Note: Pump suction heads and discharge heads corrected to elevation 100'