

USNRC REGION II
ATLANTA, GEORGIA

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September 11, 1979
L-79-252

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: RII:JPO
50-250, 50-251
IE Bulletin 79-15

We have reviewed the subject Bulletin regarding deep draft pumps,
and our response for Turkey Point Units 3 and 4 is attached.

Very truly yours,

J A De Massey
for

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/MAS/paf

Attachment

cc: Robert Lowenstein, Esquire

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KCB
A02

ATTACHMENT

Re: RII:JPO
50-250, 50-251
IE Bulletin 79-15

A survey of safety related pumps at Turkey Point Units 3 and 4 has shown that only the Intake Cooling Water System uses vertical deep draft pumps. Since these pumps are single-stage, low-head pumps, the Bulletin may not directly apply to them. However, they are deep draft pumps used for long term cooling, therefore, the following information is provided:

1. Turkey Point pumps similar to Figure 1 of Bulletin 79-15:

Unit 3 3 pumps
Unit 4 3 pumps
Spare 1 pump

2. Manufacturer Johnson Pump Co.
Model 33 CMC
Capacity 16,000 gpm
Plant Application Intake Cooling Water Pump

3. Pump dimensions are given on the attached drawing 5610-M-12A-7.

4. Summary of startup, testing, and routine maintenance:

<u>Unit No.</u>	<u>Date</u>	<u>Pumps</u>	<u>Type of Testing</u>
3	1/24/70	A,B,C	Pump performance test
3	1/7/71	A,B,C	ICW system functional test
3	1/6-7/71	A,B,C	Pump performance test
4	7/19/72	A,B,C	Pump performance test
4	9/19-20/72	A,B,C	Pump performance test
4	10/4/72	A,B,C	ICW system functional test
4	10/4/74	A,B,C	Pump performance test
4	1/11/78	A,B,C	Testing per In Service Inspection Program
	To this date		

See response 5 for maintenance history

5. Operational problems, repair efforts, and routine maintenance are listed in Table 1. Additional information is available for review at the plant site.
6. Refer to Table 1 to determine the longest interval that each pump has been available for operation without corrective maintenance.

Rated flow is 16,000 gpm, however, the pumps are usually set to provide the needed flow which is in the range of 8,000 to 13,000 gpm.

TABLE 1

<u>Date(s)</u>	<u>Pump(s)</u>	<u>Remarks</u>
8/21/70	All	Upper shaft adjusting nut found to be very loose and "sloppy" on the shaft threads. Documented on Unsatisfactory Performance Report.
2/24/72	All	Decision to replace the aluminum-bronze bearing material with Gar-Dur material (a polymer-type plastic), and to replace the two percent nickel cast iron pump suction bells with cast stainless steel bells in order to increase pump life.
1/ 4/72- 3/ 3/72	3A	Pump overhaul: Replaced lower shaft. Replaced aluminum-bronze bearings with Gar-Dur bearings. Replaced impeller wear ring.
3/ 6/72- 3/16/72	3B	Pump overhaul: Replaced lower shaft. Replaced suction bell seal ring and impeller wear ring. Replaced all bearings (including the Al-bronze bearings with Gar-Dur).
3/16/72- 3/27/72	3C	Pump overhaul: Replaced lower shaft. Replaced suction bell seal ring. Replaced aluminum-bronze bearings with Gar-Dur bearings.
3/27/72- 4/ 6/72	4C	Pump overhaul: Replaced suction bell seal ring and impeller wear ring. Replaced all bearings (including the Al-bronze bearings with Gar-Dur.)
4/ 4/72- 5/17/72	4B	Pump overhaul: Replaced suction bell seal ring and impeller wear ring. Replaced Al-bronze bearings with Gar-Dur bearings.
4/12/72- 5/17/72	4A	Pump overhaul: Replaced lower shaft. Replaced suction bell. Replaced Al-bronze bearings with Gar-Dur.
5/16/72	Spare	Pump overhaul: Replaced Al-bronze bearings with Gar-Dur.
11/10/74- 12/10/74	3A	Replaced by spare pump. The removed pump was overhauled. Pump shaft and couplings were replaced due to excessive runout. All bearings were replaced.

<u>Date(s)</u>	<u>Pump(s)</u>	<u>Remarks</u>
5/15/75	3A	Adjustment made for impeller clearance. Packing adjusted.
6/12/75- 6/13/75	4B	Coupling was adjusted when motor was changed.
8/ 8/75- 9/11/75	Spare	Pump overhaul: Replaced all bearings, shafts, impeller, impeller wear ring, and suction bell seal ring.
11/14/75- 12/12/75	3C	Replaced by spare pump.
2/ 5/76- 3/ 3/76	Spare	Pump overhaul: Replaced bearings, coupling, and packing.
4/14/76- 4/28/76	4C(?)	Replaced by spare pump.
4/28/76- 5/ 3/76	4A, 4B, 4C	Replaced packing.
8/13/76	3A	Replaced packing.
8/28/76- 10/ 1/76	Spare	Pump overhaul. Replaced upper and lower head shaft, shaft couplings, impeller, impeller wear ring, and all bearings.
11/15/76- 12/13/76	3B	Replaced by spare pump.
11/21/76	4A, 4B, 4C	Replaced packing.
12/14/76- 1/19/77	Spare	Pump overhaul: Replaced all bearings, impeller wear ring and suction bell seal ring.
1/31/77	3B, 4B	Adjusted packing.
5/12/77- 6/ 4/77	4A	Replaced by spare pump.
5/21/77- 6/24/77	Spare	Pump overhaul: Replaced all bearings and impeller wear ring.
6/25/77- 7/ 8/77	4B	Replaced by spare pump.

<u>Date(s)</u>	<u>Pump(s)</u>	<u>Remarks</u>
5/21/77- 7/18/77	Spare	Pump overhaul: Replaced all shafts and bearings. Replaced impeller, impeller wear ring, and packing.
11/17/77	3A	Adjusted packing.
12/15/77- 1/28/78	3A	Pump overhaul: Replaced all bearings, shaft couplings, and impeller wear ring.
12/31/77- 1/ 3/78	3C	Replaced by spare pump.
1/ 3/78- 8/15/78	Spare	No documentation available.
2/13/78	3B	Adjusted packing.
2/28/78	3B	Replaced packing.
4/ 4/78	4B	Adjusted packing.
5/22/78	3B	Adjusted packing.
5/26/78	All	Adjusted packing.
6/13/78	3B	Adjusted packing.
8/15/78- 9/ 2/78	4C	Replaced by spare pump.
8/15/78- 9/20/78	Spare	Pump overhaul: Replaced two shafts and impeller wear ring.
9/13/78	4B	Replaced packing.
9/14/78	4A	Replaced packing.
10/10/78	3B	Adjusted packing.
10/25/78	3B	Adjusted packing.
11/13/78	3B	Adjusted packing.
12/12/78	4C	Adjusted packing.
1/ 6/79- 3/ 1/79	3B	Replaced by spare pump.

<u>Date(s)</u>	<u>Pump(s)</u>	<u>Remarks</u>
1/18/79- 3/ 1/79	Spare	Pump overhaul: Replaced bearings, shafts, impeller, and impeller wear ring.
2/ 8/79	3C,4B	Adjusted packing.
4/ 7/79- 4/23/79	4A	Replaced by spare pump.
4/23/79- 6/ 9/79	Spare	Pump overhaul: Replaced all shafts, bearings, shaft couplings, and suction bell seal ring.