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F. L. CLAYTON, JR.
Senior Vice President

Alabama Power
the southern electric system

July 31, 1981

Docket No. 50-348
Docket No. 50-364

Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. S. A. Varga
Mr. B. J. Youngblood

TEMPORARY CHANGE TO OPERATING LICENSE
NO. NPF-2 AND NPF-8 TECHNICAL SPECIFICATIONS

Gentlemen:

While attempting to perform the routine 1 hour synchronous load surveillance test (Section 4.8.1.1.2.a.5) on Diesel 1C, it was determined that jacket cooling water had entered the liner of four cylinders. The problem was discovered at 12:50 a.m. on July 30, 1981 and the diesel declared inoperable. On further investigation of the number 11 cylinder, the wrist pin and bushings connecting the upper piston to the connecting rod were badly worn, the O-ring between the jacket water system and the air intake system was failed, and the number 11 piston and cylinder were badly scored (shown in Figure 1). It is believed that the wrist pin and bushings, after becoming excessively worn, induced nonsymetrical forces between the piston and the liner. Such nonsymetrical loading caused a scuffing of the liner and the piston generating severe amounts of heat, thereby causing O-ring failure. Due to O-ring failure, water entered into the number 11 liner. Water was distributed to other cylinders through the air intake system while the engine was at rest. In addition excessive play between the upper and lower crankshaft was found upon disassembly.

Currently, Alabama Power Company, with a team of engineers and technicians from Colt Industries, is undertaking a thorough investigation/repair program. Such program began the morning of July 30, 1981. Assuming the failures and subsequent damage is confined to that described above, engine disassembly, troubleshooting and repair, engine reassembly, and replacement of lubricating oil along with attendant engine run in and operability tests is scheduled to be completed within nine (9) days of the date of the problem discovery. More explicitly this repair will include replacement of the liner, O-rings and gaskets, upper and lower pistons, upper wrist pin and bushing for the number 11 cylinder, and repair of the upper and lower crankshaft connecting assembly. In addition, pins and bushings in the remaining upper pistons will be inspected and replaced as necessary.

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A hydrostatic test to verify satisfactory repair and to verify the adequacy of the remaining cylinder O-rings and gaskets will be performed. If damage is more extensive or if the failures involve other causes (e.g., liner cracking) the return to service time could be longer than the present schedule.

Alabama Power requests a revision to the Appendix A Technical Specifications for Units 1 and 2 included as Attachment 1. This one time exception would allow a six (6) day extension to the L.C.O. for repair of Diesel 1C while operating Units 1 and 2. In addition, Alabama Power Company proposes to demonstrate the operability of the remaining A.C. sources by performing surveillance requirements of Section 4.8.1.1.2.a.4 within one hour and at least once per 72 hours rather than within one hour and at least once per 8 hours thereafter. Due to expected time required to repair diesel generator 1C, approximately 120 starts on the remaining diesels would be required by Section 4.8.1.1.2.a.4. The diesel manufacturer does not recommend the testing frequency required during the period needed to repair diesel generator 1C due to potential accelerated wear. In addition, all transmission lines feeding the Farley Nuclear Plant switchyard are currently operable with no interruptions scheduled during this repair.

The generation from Unit 1 and Unit 2 is essential at this time since as a member of the Southern Company Power Pool, Alabama Power Company is a net purchaser of both capacity and energy. Alabama Power Company's principal hydroelectric storage reservoirs are at a critically low level with operation severely curtailed due to lack of rainfall. At this time, 900 megawatts of hydroelectric generation capacity cannot be used without excessive drawdown of reservoirs. If such adverse conditions are not alleviated or if they are further exacerbated by the inability of Farley Unit 1 and Unit 2 to generate power, Alabama Power Company will be required to implement its plan for curtailment of power to its customers.

It is requested that approval of this change to the Technical Specifications be granted before 5:00 p.m. July 31, 1981 in order that the generation of Unit 1 and Unit 2 not be impacted.

Alabama Power Company has reviewed this proposed change to the Technical Specifications by the Plant Operations Review Committee and the Nuclear Operations Review Board and has determined that such changes do not involve an unreviewed safety question as shown in the safety evaluation with detailed bases included in Attachment 2.

The class of each item in this proposed amendment is designed as Class III for Unit 1 and Class I for Unit 2 according to 10CFR170.22 requirements. Enclosed is a check for $4,400 to cover the total amount of fees required.

In accordance with 10CFR50.30(c)(1)(i), three signed originals and thirty-seven (37) additional copies of these proposed changes are enclosed.

If you have any questions, please advise.

Yours very truly,

F. L. Clayton, Jr.

FLCJr/RLG:nac

Enclosures

xc: Mr. J. P. O'Reilly (w/enclosures)
Mr. R. A. Thomas (w/enclosures)
Mr. G. F. Trowbridge (w/enclosures)
Mr. E. A. Reeves (w/enclosures)
Mr. L. L. Kintner (w/enclosures)
Mr. W. H. Bradford (w/enclosures)

Sworn to and subscribed before me this 31 day of July, 1981.

Notary Public

My Commission Expires:

My Commission Expires May 11, 1985

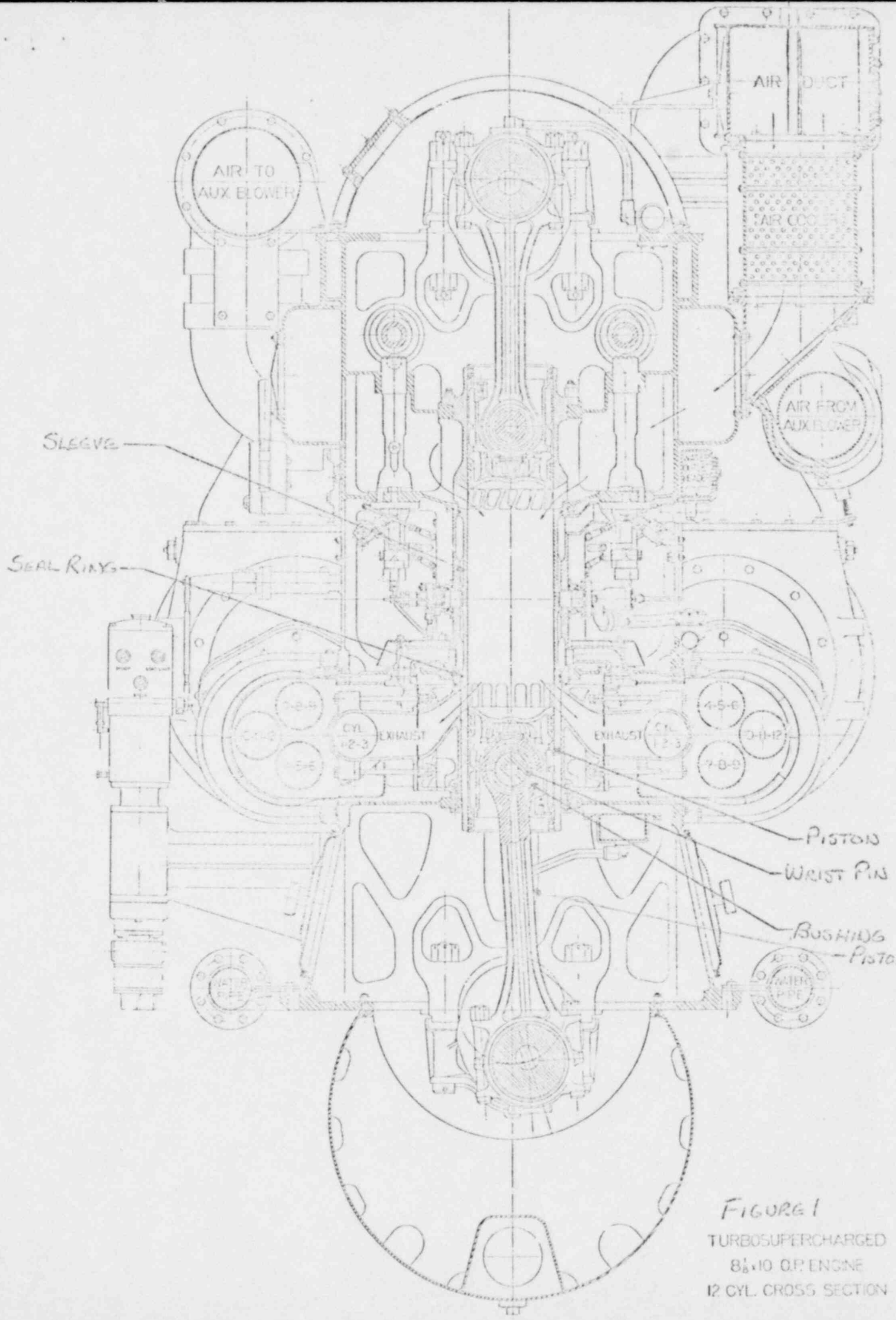

FIGURE 1

TURBOSUPERCHARGED

8⅛×10 O.P. ENGINE

12 CYL. CROSS SECTION