Mailing Address
Alabama Power Company
600 North 18th Street
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F. L. Clayton, Jr.
Senior Vice President
Flintridge Building

Alabama Power
the southern electric system

July 31, 1981

Docket No. 50-348
No. 50-364

Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Region II, Suite 3100
101 Marietta Street N. W.
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

On July 15, 1981 the resident NRC inspector for the Farley Nuclear Plant notified Alabama Power Company that the NRC Region II office was verbally requesting an updated response for IE Bulletin 79-15 by July 31, 1981.

The last update response for IE Bulletin 79-15 was dated February 26, 1980. In that response two items addressed were being evaluated/implemented.

1. 2-26-80 Response: Alabama Power is working with Byron Jackson on the solution to the failures experienced on the lower section bell bearings of the Unit 1 River Water pumps.

Update Response: The architect engineers are presently evaluating design recommendations made by Byron Jackson and will provide design changes as necessary.

2. 2-26-80 Response: Based on experience with the River Water Lube and Cooling lines, design and procurement is in progress to install a Sullectron Water treater on the Unit 1 Service Water Lube and Cooling Water Supply lines.

Update Response: The Sullectron Water Treater has been installed.

If you have any questions, please advise.

Yours very truly,

for F. L. Clayton, Jr.

IE11
s
1/1

FLCjr/JAR:rt
cc: Mr. R. A. Thomas
Mr. G. F. Trowbridge
Mr. E. A. Reeves
Mr. J. O. Thoma
Mr. W. H. Bradford

Alabama Power Company
600 North 18th Street
Post Office Box 2641
Birmingham, Alabama 35291
Telephone 205 250-1000

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.

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:

Alabama Power Company
600 North 18th Street
Post Office Box 2641
Birmingham, Alabama 35291
Telephone 205 250-1000

F. L. CLAYTON, JR.
Senior Vice President

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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.

#8108050297

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.

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F. L. Clayton, Jr.

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Enclosures

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Mr. E. A. Reeves (w/ closures)
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:

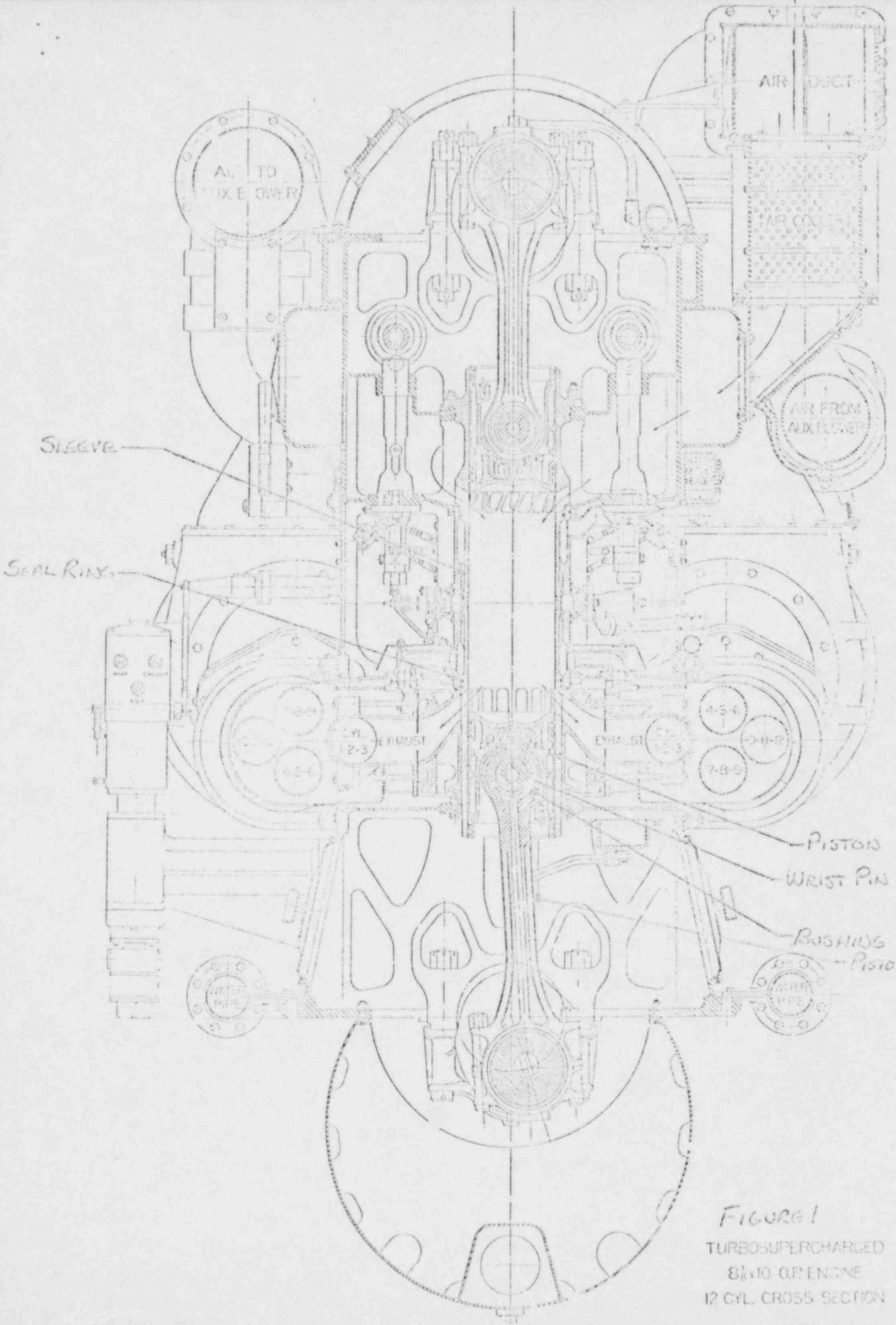

FIGURE 1
TURBOSUPERCHARGED
8¼×10 O.P. ENGINE
12 CYL. CROSS SECTION

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. Two physically independent circuits from the offsite transmission network to the switchyard and two physically independent circuits from the switchyard to the onsite Class 1E distribution system, and

b. Two separate and independent diesel generator sets (one 4075 Kw and one 2850 Kw) each with:

1. Separate day tanks containing a minimum volume of 900 gallons of fuel for the 4075 kw diesel generators and 700 gallons of fuel for the 2850 kw diesel generators.

2. A separate fuel transfer pump for each diesel.

c. A fuel storage system consisting of four independent storage tanks each containing a minimum of 25,000 gallons of fuel.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

a. With either an offsite circuit or a diesel generator set of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a and 4.8.1.1.2.a.4 within one hour and at least once per 8** hours thereafter; restore at least two offsite circuits and both diesel generator sets to OPERABLE status within 72* hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With one offsite circuit and one diesel generator set of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a and 4.8.1.1.2.a.4 within one hour and at least once per 8** hours thereafter; restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore at least two offsite circuits and both diesel generator sets to OPERABLE status within 72* hours from the time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

*One time only exception for repair of Diesel 1C - the 72 hour action statement for operability of Diesel 1C may be extended to a period of 9 days provided Diesel 1C is returned to OPERABLE status as soon as maintenance is completed. The provisions of specification 3.0.4 are not applicable for this one time change.

**One time only exception during repair of Diesel 1C - the 8 hour interval test is extended to 72 hours.

ACTION (Continued)

c. With two of the above required offsite A.C. circuits inoperable, demonstrate the OPERABILITY of both diesel generator sets by performing Surveillance Requirement 4.8.1.1.2.a.4 within one hour and at least once per 8 hours thereafter, unless the diesel generators are already operating; restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. With only one offsite source restored, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

d. With both of the above required diesel generator sets inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours** thereafter; restore at least one of the inoperable diesel generator sets to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore both diesel generator sets to OPERABLE status within 72* hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each of the above independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments, indicated power availability, and

b. Demonstrated OPERABLE at least once per 18 months during shutdown by transferring unit power supply from the normal circuit to the alternate circuit.

4.8.1.1.2 Each diesel generator set shall be demonstrated OPERABLE:

a. At least once per 31 days, on a STAGGERED TEST BASIS, by:

1. Verifying the fuel level in the day tank,

2. Verifying the fuel level in the fuel storage tanks,

*One time only exception for repair of Diesel 1C - the 72 hour action statement for operability of Diesel 1C may be extended to a period of 9 days provided Diesel 1C is returned to OPERABLE status as soon as maintenance is completed. The provisions of specification 3.0.4 arenot applicable for this one time change.

**One time only exception during repair of Diesel 1C - the 8 hour interval test is extended to 72 hours.

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. Two physically independent circuits between the offsite transmission network to the switchyard and two physically independent circuits from the switchyard to the onsite Class 1E distribution system, and

b. Two separate and independent diesel generator sets (Set A: DG 1-2A and DG-1C, Set B: DG-2B and DG-2C) each with:

1. Separate day tanks containing a minimum volume of 900 gallons of fuel for the 4075 kw diesel generators and 700 gallons of fuel for the 2850 kw diesel generator.

2. A separate fuel transfer pump for each diesel.

c. A fuel storage system consisting of four, independent storage tanks each containing a minimum of 25,000 gallons of fuel.*

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

a. With an offsite circuit inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a and 4.8.1.1.2.a.4 within one hour and at least once per 8 hours thereafter; restore at least two offsite circuits to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With one diesel generator set inoperable, demonstrate the operability of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a and 4.8.1.1.2.a.4 within one hour and at least once per 8 hours thereafter. Restore both diesel generator sets to OPERABLE status within 72** hours or comply with the following:

1) Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

*One inoperable fuel storage tank is equivalent to one inoperable diesel generator set.

**One time only exception for repair of Diesel 1C - the 72 hour action statement for operability of Diesel 1C may be extended to a period of 9 days provided Diesel 1C is returned to OPERABLE status as soon as maintenance is completed. The provisions of specification 3.0.4 are not applicable for this one time change.

***One time only exception during repair of Diesel 1C - the 8 hour interval test is extended to 72 hours.

ACTION (Continued)

2) One diesel generator set may be made inoperable for up to 14 days to perform scheduled maintenance and testing on diesel generators 1C (or 2C) provided all the following are satisfied:

a) Unit 1 is in MODE 5 or 6 and appropriate technical specifications covering the diesel generator sets are satisfied.

b) The remaining Unit 2 diesel generators 1-2A, 2B, 1C (or 2C) are OPERABLE.

c) The service water system is recirculated to the pond and surveillance requirement 4.7.6.2.1 is verified prior to removing 1C (or 2C) from service and once per hours thereafter.

d) Diesel Generator 1C (or 2C) is returned to OPERABLE status as soon as maintenance is completed.

Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With one offsite circuit and one diesel generator set of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a and 4.8.1.1.2.a.4 within one hour and at least once per 8 hours thereafter; restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore at least two offsite circuits and both diesel generator sets to OPERABLE status within 72* hours from the time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

d. With two of the above required offsite A.C. circuits inoperable, demonstrate the OPERABILITY of both diesel generator sets by performing Surveillance Requirement 4.8.1.1.2.a.4 within one hour and at least once per 8 hours thereafter, unless the diesel generators are already operating; restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. With only one offsite source restored, restore both offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

*One time only exception for repair of Diesel 1C - the 72 hour action statement for operability of Diesel 1C may be extended to a period of 9 days provided Diesel 1C is returned to OPERABLE status as soon as maintenance is completed. The provisions of specification 3.0.4 are not applicable for this one time change.

**One time only exception during repair of Diesel 1C - the 8 hour interval test is extended to 72 hours.

ACTION: (Continued)

e. With both of the above required diesel generator sets inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours** thereafter; restore at least one of the inoperable diesel generator sets to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore both diesel generator sets to OPERABLE status within 72* hours from time of initial loss or be in least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments, indicated power availability, and

b. Demonstrated OPERABLE at least once per 18 months during shutdown by transferring unit power supply from the normal circuit to the alternate circuit.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

a. In accordance with the frequency specified in Table 4.8-1 on a STAGGERED TEST BASIS by:

1. Verifying the fuel level in the day tank,

2. Verifying the fuel level in the fuel storage tanks,

3. Verifying the fuel transfer pump can be started and transfers fuel from the storage system to the day tank,

4. Verifying the diesel starts from ambient condition and accelerates to at least 900 rpm, for the 2850 kw generator and 514 rpm for the 4075 kw generators, in less than or equal to 10 seconds. The generator voltage and frequency shall be ≥ 3952 volts and ≥ 57 Hz within 10 seconds after the start signal.

5. Verifying the generator is synchronized, loaded to greater than or equal to its continuous rating, and operates for greater than or equal 60 minutes,

*One time only exception for repair of Diesel 1C - 72 hour action statement for operability of Diesel 1C may be extended to a period of 9 days provided Diesel 1C is returned to OPERABLE status as soon as maintenance is completed. The provisions of specification 3.0.4 are not applicable for this one time change.

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SAFETY EVALUATION FOR CHANGE
TO THE A.C. SOURCES - OPERATION
TECHNICAL SPECIFICATION

I. BACKGROUND

On July 30, 1981 at 12:50 a.m. while performing surveillance tests on diesel generator 1C it was determined that the jacket cooling water had been introduced into four cylinders. At this time, diesel generator 1C was declared inoperable and the 72 hour ACTION statement was invoked. After exceeding the 72 hour ACTION statement, both Units 1 and 2 must be placed in HOT STANDBY. Investigations revealed that an excess of 72 hours will be required to return diesel generator 1C to OPERABLE status.

II. REFERENCE

Technical Specification 3.8.1.1.b for Units 1 and 2.

III. BASES

A. Introduction

The onsite emergency ac power supply for Units 1 and 2 consists of five diesel generators which supply standby power for 4160V emergency service buses F, G, H, J, K, and L of each unit. These buses provide power to the emergency loads.

The emergency loads are divided between the emergency buses of each unit in two balanced, redundant load groups so that the failure of a redundant group does not prevent the safe shutdown of both reactors.

The 4160V emergency buses F, H and K of each unit and their associated loads are designed as the redundant load group Train A.

The 4160V emergency buses G, J and L of each unit and their associated loads are designated as the redundant load group Train B.

Diesel generators 1-2A and 1C are assigned to the redundant load group Train A, while diesel generators 1B, 2B and 2C are assigned to the redundant load group Train B.

Diesel generator 1B is uniquely assigned to Unit 1, while diesel generator 2B is uniquely assigned to Unit 2. Diesel generators 1-2A, 1C and 2C are shared between the two units. See attached FSAR Fig. 8-3.3.

The capacity of the diesel generators ensures that sufficient power will be available to provide for the functioning of required emergency loads during the worst loading situations.

B. DISCUSSION OF IMPACT OF LOSS OF DIESEL GENERATOR 2C

Table 1 delineates the resultant loss of equipment with D.G. 1C out of service for the following cases:

1. Loss of offsite power - Units 1 and 2

2. Loss of offsite power - Unit 1

3. Loss of offsite power - Unit 2

4. Loss of offsite power - Units 1 and 2 concurrent with a loss of coolant accident - Unit 1

5. Loss of offsite power - Units 1 and 2 concurrent with a loss of coolant accident - Unit 2

6. Loss of offsite power and a loss of coolant accident - Unit 1. Normal shutdown on Unit 2.

7. Loss of offsite power and a loss of coolant accident - Unit 2. Normal shutdown on Unit 1.

The loss of diesel generator 1C has no impact on either unit for case 2, 3, 6 or 7 due to the fact that D.G. 1-2A loads the essential buses and D.G. 1C does not pick up any emergency buses. The loss of D.G. 1C for case 1 results in a loss of Train A loads for Unit 2. The loss of D.G. 1C for cases 4 or 5 results in a loss of Train A loads for Units 2 or 1 respectively.

For the cases where there is a loss of coolant accident for either unit, D.G. 1-2A aligns itself to the unit which is undergoing a LOCA.

Figure 1 provides a description of the Farley emergency electrical distribution buses.

In addition to reasons stated above for acceptability of the extension of the outage for diesel generator 1C, the following should be noted.

The probability of the loss of offsite power during this period is not significantly increased.

In addition, extensive load tests have been recently completed on the diesel generators providing emergency power to Unit 2.

Based on the operating power history of the FNP 2 core, up through July 31, 1981 and including eight additional full power days of operation, Westinghouse has determined that the best estimate decay heat source is less than the Appendix K curve as follows:

1. At one second - FNP 2 core is approximately 82% Appendix K.

2. At 400 seconds - FNP 2 core is approximately 76% Appendix K.

3. At 4,000 seconds - FNP 2 core is approximately 70% Appendix K.

At increasing greater times, the FNP 2 core will continue to diverge from the Appendix K values. Therefore the decay heat source in the FNP 2 core, during the Technical Specification extension period, will be less than that assumed in the FSAR accident analysis.

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 75 starts on the remaining diesels would be required by Specification 4.8.1.1.2.a.4. The diesel manufacturer does not recommend the testing frequency required during the period required 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 interruption scheduled during this repair.

During the time period of this Technical Specification, the frequency of testing of the four remaining diesels will be modified to be performed on a staggered basis. To implement the staggered testing, plant procedures will be modified to ensure that operators are aware of such conditions while diesel 1C is being repaired. SROs and Shift Technical Advisors will be briefed of such conditions.

As a result of implementation of recent Diesel Generator Task Force recommendations the frequency of failures of the small diesels (1C and 2C) have decreased from 6 of 100 starts to 4 of 100 starts and failures of the large diesels (1-2A, 1B, and 2B) have decreased from 5 of 100 starts to 2 of 100 starts since May 10, 1981.

The improvement in the failure rate of the large diesels, per R.G.1.108, allows APCO to test the diesels every fourteen days vice 3 days, which was required as of May 10, 1981. Similarly for the small diesels, the improvement in the failure rate will allow Alabama Power to test the small diesels every seven days as soon as the failure rate reaches 3 out of 100 starts. Based on this data the reliability of the diesels has been significantly enhanced since May 10, 1981.

Based on a risk assessment performed by the NRC on July 8, 1981, the probability of core meltdown during a similar technical specification extention would be approximately 3×10^{-5}. Based on the shorter extension period and the improved diesel reliability, such probability would be significantly lessened.

IV. CONCLUSION

The proposed change to Technical Specification 3.8.1.1.b does not involve an unreviewed safety question as defined by 10 CFR 50.59.

This one time Technical Specification change however will not significantly affect the safe operation of the Farley Nuclear Plant Units 1 and 2.

TAB1

Summary of Postulated Accident Conditions With
Diesel Generator 1C Out For Maintenance Or Test

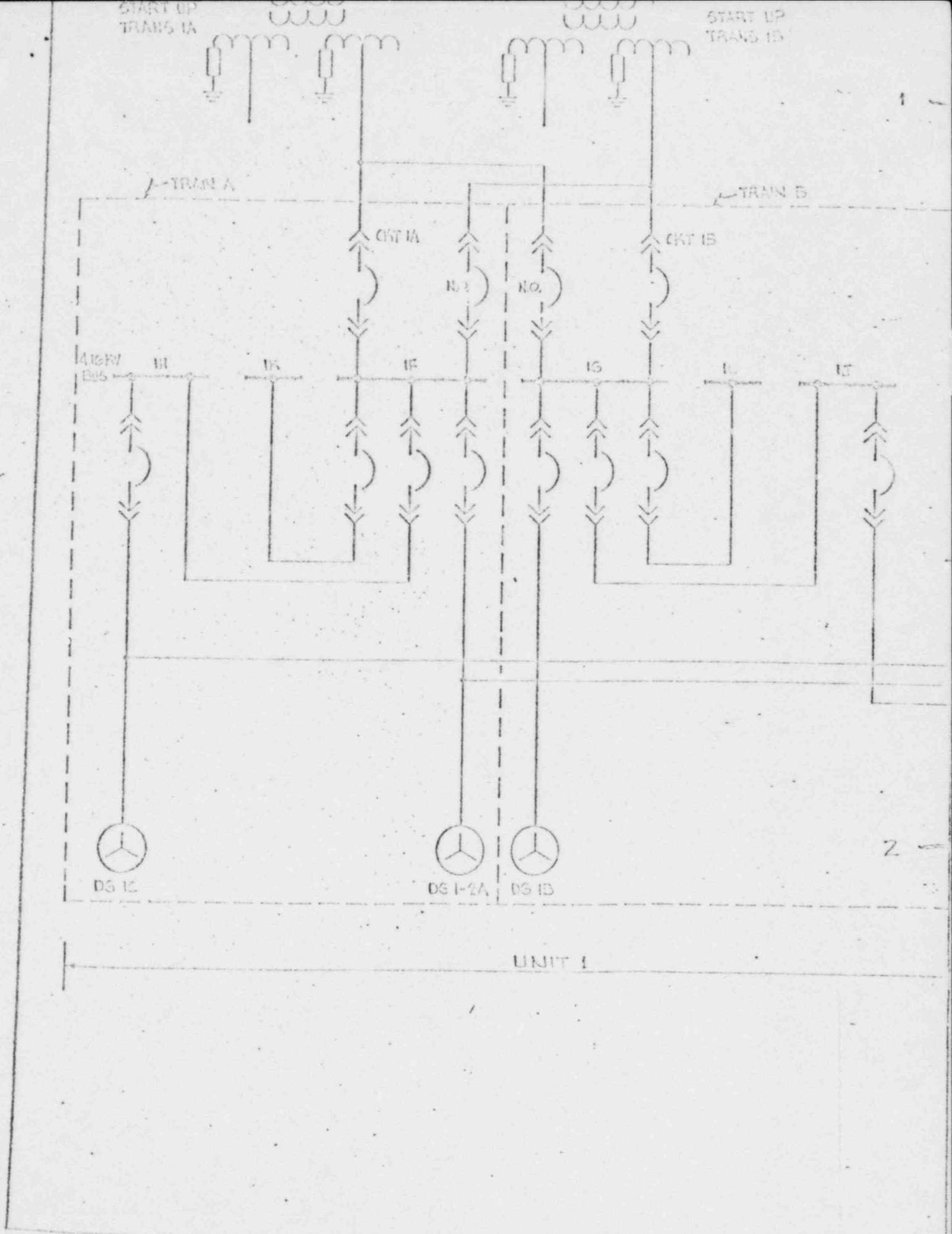
CASE	CONDITION UNIT 1	CONDITION UNIT 2	LOSS OF TRAIN	LOSS OF EQUIPMENT	REFER TO FSAR TABLE 8.3-2 SHEET NO.	COMMENT
1	LOSP	LOSP	2A	LOSP LOADS	1	---
2.	LOSP	No LOSP	NONE	NONE	4	D.G. 1C not required
3	No LOSP	LOSP	NONE	NONE	4	D.G. 1C not required
4	LOSP LOCA	LOSP No LOCA	2A	LOSP LOADS	2	D.G. 1-2A aligns to LOCA unit
5	LOSP No LOCA	LOSP LOCA	1A	LOSP LOADS	3	D.G. 1-2A aligns to LOCA unit
6	LOSP LOCA	No LOSP No LOCA	NONE	NONE	5	D.G. 1C not required
7	No LOSP No LOCA	LOSP LOCA	NONE	NONE	5	D.G. 1C not required

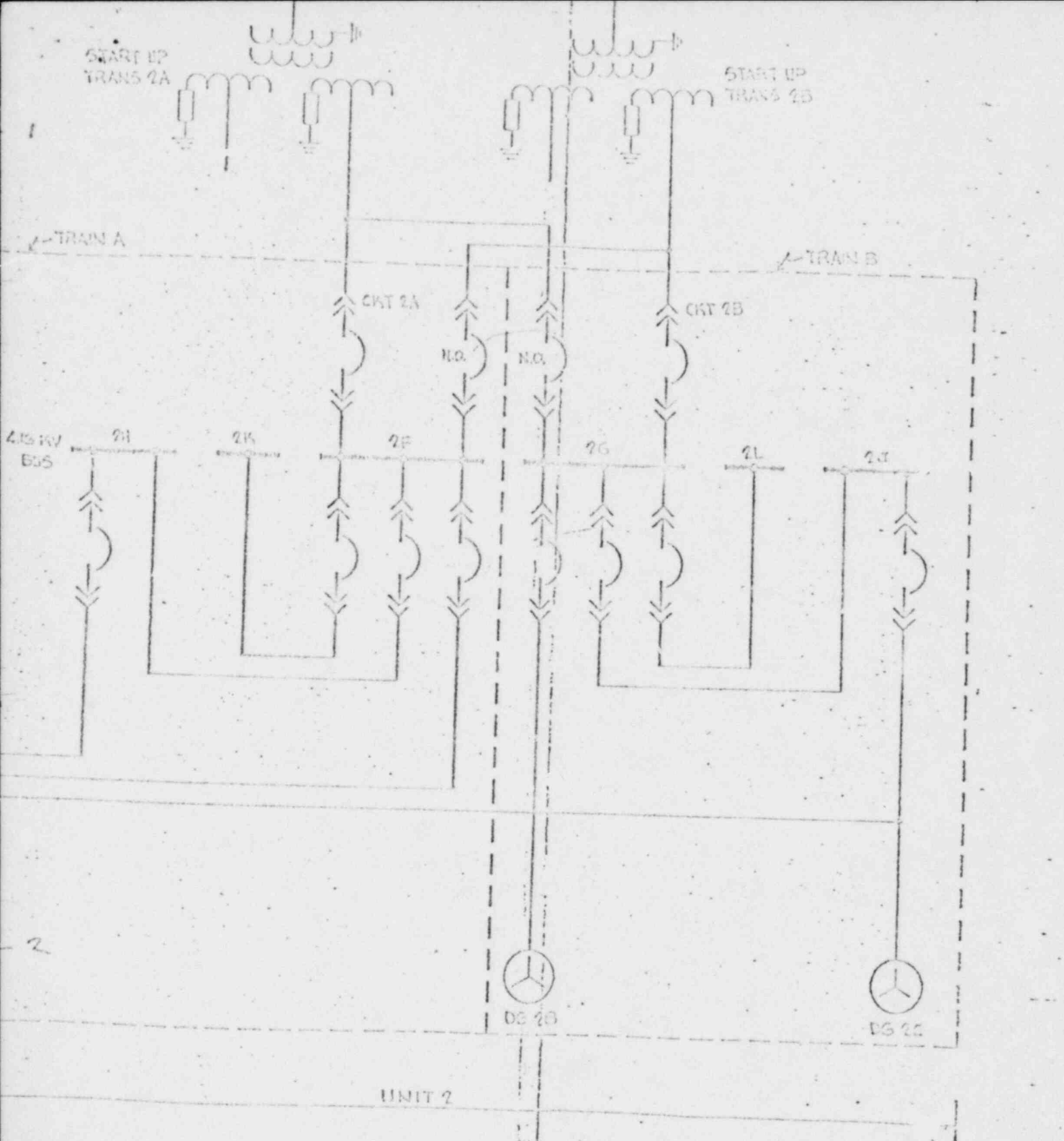
NOTE: With LOCA on either unit river water pumps are not required.

DEFINITIONS: LOSP - Loss of Offsite Power
TRAIN 2A - "A" electrical train of Unit 2
TRAIN 1A - "A" electrical train of Unit 1
LOSP LOADS - are the emergency loads required to function during the shutdown process of a non-accident unit, when that unit experiences the loss of its offsite power sources.

LOAD DESCRIPTION	BUSES							
	1F	1K	1G	1L	2F	2K	2G	2L
A. LOSP LOADS								
Charging PMP	X		X		X		X	
CCW PMP	X		X		X		X	
AFW PMP	X		X		X		X	
CRDM CLNG FAN	X		X		X		X	
CTMT CLR FAN	X		X		X		X	
BATT CHRGR	X		X		X		X	
SERVICE WTR PMP		X		X		X		X
B. LOCA LOADS								
HHSI PMP	X		X		X		X	
RHR PMP	X		X		X		X	
CCW PMP	X		X		X		X	
AFW PMP	X		X		X		X	
CTMT SPRAY PMP	X		X		X		X	
REAC CAV H_2 DIL FAN	X		X		X		X	
CTMT CLR FAN	X		X		X		X	
BATT CHRGR	X		X		X		X	
SERVICE WTR PMP		X		X		X		X

C. RIVER WATER SYSTEM	4KV BUS 1H	4KV BUS 1J	4KV BUS 2H	4KV BUS 2J
a) 1 RIVER WTR PMP TOTAL			X	
b) 2 RIVER WTR PMP TOTAL		X		
c) 3 RIVER WTR PMP TOTAL	X			X


START UP
TRANS 1A
START UP
TRANS 1B
TRAIN A
TRAIN B
CKT 1A
CKT 1B
N.O.
N.O.
4.16KV
Bus
1E
1F
1G
1L
1S
DG 1C
DG 1-2A
DG 1B
UNIT 1



ALABAMA POWER COMPANY
JOSEPH M. FARLEY NUCLEAR PLANT
FINAL SAFETY ANALYSIS REPORT

SCHEMATIC ARRANGEMENT DIESEL GENERATORS AND 4160-V EMERGENCY BUSES. UNITS 1 AND 2

FIGURE 8.3-3