

**Lewis Sumner**  
Vice President  
Hatch Project Support

**Southern Nuclear  
Operating Company, Inc.**  
40 Inverness Parkway  
Post Office Box 1295  
Birmingham, Alabama 35201  
Tel 205.992.7279  
Fax 205.992.0341



February 20, 2002

Docket Nos. 50-321  
50-366

HL-6193

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

Edwin I. Hatch Nuclear Plant  
Request to Revise Technical Specifications:  
One Time Extension of Hatch Unit 1 and Unit 2  
Technical Specification 3.8.1 for Diesel Generator 1B

Ladies and Gentlemen:

Following is a request for a one time only emergency change to the Hatch Unit 1 and 2 Technical Specifications (TS) concerning the 1B emergency diesel generator. This proposal is being submitted under the provisions of 10 CFR 50.91.

Southern Nuclear Plant Hatch requests an extension of the allowed out of service time for the 1B diesel generator given in specification 3.8.1.B, from 7 to 14 days. Enclosures 1 and 2 provide the page change instructions and the revised Technical Specifications pages.

On August 31, 2001 we submitted a request for a permanent Technical Specifications change to revise the allowed out of service time for all the diesel generators to 14 days. The probabilistic risk arguments made in that submittal also apply in the case of this one time change. You are currently reviewing that submittal, and we request that you continue giving it your consideration.

The reasons for this one time change request are detailed below:

On 2/18/2002 the 1B diesel generator was manually shutdown, due to high crankcase pressure, following the successful completion of the TS required (SR 3.8.1.2) 60 minute run, and just after loading the diesel to 3000 kW as part of an augmented run for determining degradation. The diesel was declared inoperable at the beginning of its TS surveillance as is normally done per the surveillance procedure at 0852 on 2/18/2002. Normally, and upon satisfactory completion of the monthly surveillance, the diesel would be declared operable. It was not declared operable in this case due to the high crankcase pressure condition exhibited during the augmented run.

The degradation of the 1B diesel generator was first noted on 11/28/2001 when the diesel tripped automatically on high crankcase pressure before the completion of its 24 hour test run. Investigations and troubleshooting by plant Engineering, Maintenance and vendor (Fairbanks Morse) representatives revealed that the crankcase pressure was oscillating between 2.4 and .4 inches of water column vacuum. Ultimately, no engine internal mechanical condition was identified that would cause such fluctuations.

A001

The crankcase pressure trip is intended as an indicator of possible diesel engine degradation and is only in effect while testing the diesel. Consultations with the vendor confirmed that the high pressure condition did not indicate a severe degradation in performance which would cause a loss of safety function and, as a result, the diesel generator was subsequently declared operable. However, since the exact cause of the high crankcase pressure was unknown, testing of the 1B diesel generator was increased from monthly to weekly. The automatic high crankcase pressure trip was disabled and testing criteria, which were suggested by the vendor, were established. These criteria were intended as indicators of further degradation. They were: 1) a crankcase pressure of > .5 inches of water (positive) for more than two minutes, and 2) 1.5 inches of pressure at anytime. If either of these criteria were met, the diesel generator was to be manually shutdown. During the testing of 2/18/02, further degradation was noted when the crankcase pressure remained > .5 inches of water (positive) for greater than one minute at which time the diesel generator was manually shutdown. There was no indication that the crankcase pressure would decrease if given another minute, thus, based on this information, Operations determined that Criteria #1 was reached.

Engineering and Maintenance immediately began working, and are presently working, with Operations to obtain additional information that would be needed in determining the causes for the degraded operation and in performing the required maintenance on the 1B diesel generator. This can only be accomplished with major corrective action which will require some disassembly of the diesel generator. It is anticipated that the seven day Required Action Statement (RAS) will be exceeded to complete the corrective maintenance of the diesel, thus our request for a 14 day completion time.

No risk significant equipment is planned to be out of service during this 14 day time frame (besides the 1B diesel), however, we will be performing a Reactor Core Isolation Cooling (RCIC) system pump operability test. The system is administratively declared inoperable during the test because the flow controller is placed in manual. However, the system remains available for vessel injection via operator intervention.

Furthermore, plant risk will be managed during this diesel outage by the use of our 90AC-OAM-002-0s, Scheduling Maintenance procedure, as described in our submittal of August 31, 2001, page E1-27, "Risk-Informed Configuration Risk Management Program". For this situation, proposed work activities for the next two weeks were reviewed. Certain maintenance activities which affected the availability of risk significant activities were rescheduled. For example, a Core Spray logic system functional test and a preventive maintenance on a Residual Heat Removal pump were deferred. Furthermore, a list of equipment which should not be removed from service has been developed and distributed to Plant Dispatchers and Operations. Specifically, these systems are:

1R24S026, Diesel Generator Motor Control Center  
Unit 1 / 2 Core Spray Pumps  
Unit 1 / 2 A&C D/Gs, D/G Batteries, Battery Chargers  
Unit 1 / 2 Station Service Batteries, Battery Chargers  
Unit 1 / 2 Reactor Building Closed Cooling Water (RBCCW) Pumps  
Unit 1 / 2 600V CD Transformer  
Unit 1 / 2 Startup Transformer (SUT) C & D  
Unit 1 / 2 RPS MG Sets  
Main Control Room (MCR) A/C Systems

Unit 1 / 2 Station Service Air Compressor (SSAC) Closed Cooling Water Pumps  
Unit 1 / 2 LPCI injection path components  
MCR Purge Fans A & B  
Unit 1 / 2 CRD Pumps  
Unit 1 / 2 HPCI  
Unit 1 / 2 RCIC  
Unit 1 / 2 RHRSW Pumps and Flow path  
Unit 1 / 2 Shutdown Cooling (SDC) Flow Path  
Unit 1 / 2 Suppression Pool Cooling Flow Path  
Unit 1 / 2 PSW Pumps

All emergency 4 kV busses are operable and available as are their normal and alternate power supplies, the 1D and 1C startup transformers, respectively. Also, there will be no work in the 230 kV switchyard which may increase the likelihood of a Loss of Offsite Power event.

Additionally, you requested CDF and LERF values to be sent as part of this request. They are as follows:

With the B Diesel Generator removed from service the instantaneous risk values, which consider no maintenance on risk significant equipment except the B Diesel are as follows:

CDF=1.249E-05  
LERF=4.02E-06

These numbers allow for equipment unavailability associated with ATTS surveillances and battery charger swapping. The maintenance plan for the time the B Diesel is removed from service will not intentionally remove risk significant equipment from service. As a result the CDF and LERF values are conservatively estimated to be as mentioned for 14 days out of service time. These values will be the same for 7 days out of service. These values represent the risk to each plant unit.

The maximum changes in CDF and LERF as compared to the base case average risk are as follows:

CDF (B Diesel Out of Service)=1.249E-05  
CDF (Base) =1.11E-05  
 $\Delta$ CDF=1.39E-06

LERF (B Diesel Out of Service)=4.02E-06  
LERF (Base) =1.42E-06  
 $\Delta$ LERF=2.6E-08

ICCDP (14 Days) = (1.39E-06)×(14÷365)=5.33E-08

ICLERP (14 Days) = (2.6E-08)×(14÷365)=9.97E-08

The numbers for CDF (Base) and LERF (Base) as shown above use maintenance numbers for the diesel generators that are presently used in the risk models. These numbers are

provided on page E1-16 of Enclosure 1 of the original submittal. The reason is that this is correct for the one time non-permanent Tech Spec change as opposed to the permanent change where it is proper to estimate the increase in average maintenance.

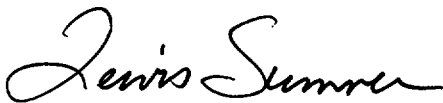
The major contributors to change deal with Station Blackout cutsets. These are driven by failure of the operable diesel generators. The conservatism in station service battery life affects these cutsets to a degree because of the potential use of RCIC as an injection source for Station Blackout (SBO).

Another conservative aspect of the Hatch LERF calculation is that some loss of decay heat removal sequences can possibly be not considered as LERF as their consequences would not be felt for some time (i.e.; longer than 24 hours). These items are being considered in review of the LERF model as having high potential for modification.

As currently written, RAS 3.8.1.B.4 allows the 1B diesel generator to be out of service for seven days. If after those seven days the diesel has not been made operable, both Hatch Units 1 and 2 must be placed in mode 3 within twelve hours and in mode 4 within 36 hours. This RAS will expire at 0852 on 2/25/2002; both units would then have to be in hot shutdown at 2052 on 2/25/2002. We believe that an increase in the diesel 1B RAS from 7 to 14 days is warranted, rather than subjecting both units to shutdown and subsequent startup transients, as well as the challenges to the safety systems those transients may entail.

Accordingly, we respectfully request a one time change to the Hatch Unit 1 and Unit 2 Technical Specifications to revise LCO 3.8.1 to allow a 14 day completion time for swing diesel generator 1B, as opposed to the present seven day allowed out of service time. Should you have any further questions, please contact this office.

Respectfully submitted,



H. L. Sumner, Jr.

OCV/eb

cc: Southern Nuclear Operating Company  
Mr. P. H. Wells, Nuclear Plant General Manager  
SNC Document Management (R-Type A02.001)

U.S. Nuclear Regulatory Commission, Washington, D.C.  
Mr. L. N. Olshan, Project Manager - Hatch

U.S. Nuclear Regulatory Commission, Region II  
Mr. L. A. Reyes, Regional Administrator  
Mr. J. T. Munday, Senior Resident Inspector - Hatch

State of Georgia  
Mr. L. C. Barrett, Commissioner - Department of Natural Resources

Enclosure 1

Edwin I. Hatch Nuclear Plant  
Request to Revise Technical Specifications:  
One Time Extension of Hatch Unit 1 and Unit 2  
Technical Specification 3.8.1 for Diesel Generator 1B

Page Change Instructions

**Unit 1**

<u>Page</u>	<u>Replace</u>
3.8-3	3.8-3
3.8-4	3.8-4
3.8-5	3.8-5

**Unit 2**

<u>Page</u>	<u>Replace</u>
3.8-3	3.8-3
3.8-4	3.8-4
3.8-5	3.8-5

Enclosure 2

Edwin I. Hatch Nuclear Plant  
Request to Revise Technical Specifications:  
One Time Extension of Hatch Unit 1 and Unit 2  
Technical Specification 3.8.1 for Diesel Generator 1B

**Published Technical Specifications Pages**

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. (continued)	B.2 Declare required feature(s), supported by the inoperable DG, inoperable when the redundant required feature(s) are inoperable.	4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)
	<u>AND</u>	
	B.3.1 Determine OPERABLE DG(s) are not inoperable due to common cause failure.	24 hours
	<u>OR</u>	
	B.3.2 Perform SR 3.8.1.2.a for OPERABLE DG(s).	24 hours
	<u>AND</u>	
	B.4 Restore DG to OPERABLE status.	72 hours for a Unit 1 DG
		<u>AND</u>
		7 days* for the swing DG
		<u>AND</u>
		10 days* from discovery of failure to meet LCO 3.8.1.a, b, or c

(continued)

\*For the period from February 18, 2002, to March 4, 2002, a 14 day Competition Time is allowed for the swing DG.

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One required Unit 2 DG inoperable	C.1 Perform SR 3.8.1.1 for OPERABLE required offsite circuit(s).	1 hour  <u>AND</u>  Once per 8 hours thereafter
	<u>AND</u>	
	C.2 Declare required feature(s), supported by the inoperable DG, inoperable when the redundant required feature(s) are inoperable.	4 hours from discovery of Condition C concurrent with inoperability of redundant required feature(s)
	<u>AND</u>	
	C.3.1 Determine OPERABLE DG(s) are not inoperable due to common cause failure.	24 hours
	<u>OR</u>	
D. Two or more required offsite circuits inoperable.	C.3.2 Perform SR 3.8.1.2.a for OPERABLE DG(s).	24 hours
	<u>AND</u>	
	C.4 Restore required DG to OPERABLE status.	7 days
	<u>AND</u>	
	D.1 Declare required feature(s) with no offsite power available inoperable when the redundant required feature(s) are inoperable.	12 hours from discovery of Condition D concurrent with inoperability of redundant required feature(s)
	<u>AND</u>	
(continued)		



ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. (continued)	D.2 Restore all but one required offsite circuit to OPERABLE status.	24 hours
E. One required offsite circuit inoperable.  <u>AND</u>  One required DG inoperable.	<p>-----NOTE----- Enter applicable Conditions and Required Actions of LCO 3.8.7, "Distribution Systems - Operating," when Condition E is entered with no AC power source to one 4160 V ESF bus. -----</p> <p>E.1 Restore required offsite circuit to OPERABLE status.</p> <p><u>OR</u></p> <p>E.2 Restore required DG to OPERABLE status.</p>	<p>12 hours</p> <p>12 hours</p>
F. Two or more (Unit 1 and swing) DGs inoperable.	F.1 Restore all but one Unit 1 and swing DGs to OPERABLE status.	2 hours
G. No DGs capable of supplying power to any Unit 1 LPCI valve load center.	G.1 Restore one DG capable of supplying power to Unit 1 LPCI valve load center to OPERABLE status.	2 hours
H. Required Action and Associated Completion Time of Condition A, B, C, D, E, F, or G not met.	<p>H.1 Be in MODE 3.</p> <p><u>AND</u></p> <p>H.2 Be in MODE 4.</p>	<p>12 hours</p> <p>36 hours</p>

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. (continued)	B.2 Declare required feature(s), supported by the inoperable DG, inoperable when the redundant required feature(s) are inoperable.	4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)
	<u>AND</u>	
	B.3.1 Determine OPERABLE DG(s) are not inoperable due to common cause failure.	24 hours
	<u>OR</u>	
	B.3.2 Perform SR 3.8.1.2.a for OPERABLE DG(s)	24 hours
	<u>AND</u>	
	B.4 Restore DG to OPERABLE status.	72 hours for a Unit 2 DG
		<u>AND</u>
		7 days* for the swing DG
		<u>AND</u>
		10 days* from discovery of failure to meet LCO 3.8.1.a, b, or c

(continued)

\*For the period from February 18, 2002, to March 4, 2002, a 14 day Completion Time is allowed for the swing DG.

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Unit 1 DG inoperable.	C.1 Perform SR 3.8.1.1 for OPERABLE required offsite circuit(s).	1 hour
	<u>AND</u>	<u>AND</u> Once per 8 hours thereafter
	C.2 Declare required feature(s), supported by the inoperable DG, inoperable when the redundant required feature(s) are inoperable.	4 hours from discovery of Condition C concurrent with inoperability of redundant required feature(s)
	<u>AND</u>	
	C.3.1 Determine OPERABLE DG(s) are not inoperable due to common cause failure.	24 hours
	<u>OR</u>	
	C.3.2 Perform SR 3.8.1.2.a for OPERABLE DG(s).	24 hours
	<u>AND</u>	
	C.4 Restore required DG to OPERABLE status.	7 days
D. Two or more required offsite circuits inoperable.	D.1 Declare required feature(s) with no offsite power available inoperable when the redundant required feature(s) are inoperable.	12 hours from discovery of Condition D concurrent with inoperability of redundant required feature(s)
	<u>AND</u>	

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. (continued)	D.2 Restore all but one required offsite circuit to OPERABLE status.	24 hours
E. One required offsite circuit inoperable.  <u>AND</u>  One required DG inoperable.	<p>-----NOTE----- Enter applicable Conditions and Required Actions of LCO 3.8.7, "Distribution Systems - Operating," when Condition E is entered with no AC power source to one 4160 V ESF bus. -----</p> <p>E.1 Restore required offsite circuit to OPERABLE status.</p> <p><u>OR</u></p> <p>E.2 Restore required DG to OPERABLE status.</p>	<p>12 hours</p> <p>12 hours</p>
F. Two or more (Unit 2 and swing) DGs inoperable.	F.1 Restore all but one Unit 2 and swing DGs to OPERABLE status.	2 hours
G. No DGs capable of supplying power to any Unit 2 LPCI valve load center.	G.1 Restore one DG capable of supplying power to Unit 2 LPCI valve load center to OPERABLE status.	2 hours
H. Required Action and Associated Completion Time of Condition A, B, C, D, E, F, or G not met.	<p>H.1 Be in MODE 3.</p> <p><u>AND</u></p> <p>H.2 Be in MODE 4.</p>	<p>12 hours</p> <p>36 hours</p>

(continued)