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February 5, 2003

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Technical Specification Bases Update to the NRC for Period Dated
February 5, 2003

Grand Gulf Nuclear Station
Docket No. 50-416
License No. NPF-29

GNRO-2003/00005

Ladies and Gentlemen:

Pursuant to Grand Gulf Nuclear Station (GGNS) Technical Specification 5.5.11, Entergy Operations, Inc. hereby submits an update of all changes made to GGNS Technical Specification Bases since the last submittal (GNRO-2002/00098 letter dated December 9, 2002 to the NRC from GGNS). This update is consistent with update frequency listed in 10CFR50.71(e).

This letter does not contain any commitments.

Should you have any questions, please contact Mike Larson at (601) 437-6685.

Yours truly,

A handwritten signature in black ink, appearing to be "M. Larson".

CAB/MJL
attachment:
cc:

GGNS Technical Specification Bases Revised Pages
(See Next Page)

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cc:

Hoeg	T. L.	(GGNS Senior Resident)	(w/a)
Levanway	D. E.	(Wise Carter)	(w/a)
Reynolds	N. S.		(w/a)
Smith	L. J.	(Wise Carter)	(w/a)
Thomas	H. L.		(w/o)

U.S. Nuclear Regulatory Commission ATTN: Mr. E. W. Merschoff (w/2) 611 Ryan Plaza Drive, Suite 400 Arlington, TX 76011-4005	ALL LETTERS
U.S. Nuclear Regulatory Commission ATTN: Mr. David H. Jaffe, NRR/DLPM (w/2) ATTN: ADDRESSEE ONLY ATTN: Courier Delivery Only Mail Stop OWFN/7D-1 11555 Rockville Pike Rockville, MD 20852-2378	ALL LETTERS – COURIER DELIVERY (FEDEX, ETC.) ADDRESS ONLY - ****DO NOT USE FOR U.S. POSTAL SERVICE ADDRESS*****

ATTACHMENT to GNRO-2003/00005

GGNS Gulf Technical Specification Bases Revised Pages

dated

February 5 2003

LDC#	BASES PAGES AFFECTED	TOPIC of CHANGE
02057	B 3.7-11	Changed word “dampers” to “valves” to match plant configuration.
02024	B 3.8-16	Editorial change to wording to match plant configuration.
02153	B 3.8-27, B 3.8-34	Editorial change to wording and addition of references.
03008	B 3.8-8a, B 3.8-8b and B 3.8-8c(new page)	Added discussion to enhance the Bases in regard to Division 3 Diesel Generator allowed outage times for planned maintenance or inspections. This change ensures Bases for Division 3 Diesel Generator are consistent with Division 1 and 2 Diesel Generator Bases as modified for Technical Specification Amendment 151.

B 3.7 PLANT SYSTEMS

B 3.7.3 Control Room Fresh Air (CRFA) System

BASES

BACKGROUND

The CRFA System provides a radiologically controlled environment from which the unit can be safely operated following a Design Basis Accident (DBA).

The safety related function of the CRFA System used to control radiation exposure consists of redundant isolation valves in each inlet and exhaust flow path. The system also includes two independent and redundant high efficiency air filtration subsystems for treatment of recirculated air or outside supply air. Each subsystem consists of a demister, an electric heater, a prefilter, a high efficiency particulate air (HEPA) filter, an activated charcoal adsorber section (optional), a second HEPA filter, a fan, and the associated ductwork and dampers. Demisters remove water droplets from the airstream. Prefilters and HEPA filters remove particulate matter that may be radioactive. The charcoal adsorbers, if utilized, provide a holdup period for gaseous iodine, allowing time for decay.

With the implementation of the alternative source term (Reference 7), the filtration of elemental and organic iodine is no longer credited in the accident analyses and is not a safety-related function. Parts of the CRFA System are operated to maintain the control room environment during normal operation. Upon receipt of the initiation signal(s) (indicative of conditions that could result in radiation exposure to control room personnel), the CRFA System automatically switches to the isolation mode of operation to prevent infiltration of contaminated air into the control room. A system of valves isolates the control room. Control room air flow may be recirculated and processed through either of the two filter subsystems.

The CRFA System is designed to maintain the control room environment for a 30 day continuous occupancy after a DBA, per the requirements of GDC 19. CRFA System operation in maintaining the control room habitability is discussed in the UFSAR, Sections 6.5.1 and 9.4.1 (Refs. 1 and 2, respectively).

(continued)

BASES

ACTIONS

B.4 (continued)

for an inoperable Division 3 DG when Condition B may have already been entered for another equipment inoperability and is still in effect). As discussed in the APPLICABILITY SECTION a NOTE for Division 3 DG is provided allowing an exception to be taken to the 72 hour completion time. By declaring the HPCS System inoperable, the Division 3 DG allowed outage time could be extended up to 17 days (72 hours plus ECCS allowed outage time of 14 days). Use of this extension could be warranted for an unplanned DG inoperability and for voluntary planned maintenance or inspections. Any voluntary maintenance or inspection of the Division 3 DG shall be performed using a risk-informed process as required by 10CFR50.65(a)(4). Additional contingencies are to be in place for the duration of the extended AOT duration (greater than 72 hours and up to 17 days) as follows:

1. Weather conditions will be evaluated prior to entering an extended DG allowed outage time for voluntary planned maintenance. An extended DG allowed outage time AOT will not be entered for voluntary planned maintenance purposes if official weather forecasts are predicting severe conditions (hurricane, tropical storm, tornado, or snow/ice storm) that could significantly threaten grid stability during the planned outage time.
2. The condition of the offsite power supply and switchyard will be evaluated.
3. No elective maintenance will be scheduled within the switchyard that would challenge offsite power availability during the extended Division 3 DG allowed outage time.
4. Operating crews will be briefed on the DG work plan whenever the extended allowed outage time period is used, with consideration given to key procedural actions that would be required in the event of a loss of offsite power or station blackout.

(continued)

BASES

ACTIONS

B.4 (continued)

5. The RCIC high pressure injection system and the Division 1 and 2 DGs will not be taken out of service for planned maintenance while the Division 3 DG is out of service during the extended allowed outage time.

The second Completion Time (14 days) applies to an inoperable Division 1 or Division 2 DG and is a risk-informed allowed outage time (AOT) based on a plant specific risk analysis. The extended AOT would typically be used for voluntary planned maintenance or inspections but can also be used for corrective maintenance. However, use of the extended AOT for voluntary planned maintenance should be limited to once within an operating cycle (18 months) for each DG (Division 1 and Division 2). Additional contingencies are to be in place for any extended AOT duration (greater than 72 hours and up to 14 days) as follows:

1. Weather conditions will be evaluated prior to entering an extended DG AOT for voluntary planned maintenance. An extended DG AOT will not be entered for voluntary planned maintenance purposes if official weather forecasts are predicting severe conditions (hurricane, tropical storm, tornado, or snow/ice storm) that could significantly threaten grid stability during the planned outage time.
2. The condition of the offsite power supply and switchyard will be evaluated.
3. No elective maintenance will be scheduled within the switchyard that would challenge offsite power availability during the proposed extended DG AOT.
4. Operating crews will be briefed on the DG work plan whenever the extended AOT period is used, with consideration given to key procedural actions that would be required in the event of a loss of offsite power or station blackout. It is expected that the Division 3 DG can be cross-connected and ready to power required shutdown equipment on either Division 1 or Division 2 ESF bus within two hours of determining a need to cross-connect.

(continued)

BASES

ACTIONS

B.4 (continued)

5. High pressure injection systems (HPCS and RCIC) and the Division 3 DG (HPCS DG) will not be taken out of service for planned maintenance while DG Division 1 or 2 is out of service for extended maintenance.

The third Completion Time for Required Action B.4 established a limit on the maximum time allowed for any combination of required AC power sources to be inoperable during any single contiguous occurrence of failing to meet the LCO. If Condition B is entered while, for instance, an

(continued)

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.8.1.3 (continued)

Although no power factor requirements are established by this SR, the DG is normally operated at a power factor between 0.9 lagging and 1.0. The 0.9 value is conservative with respect to the design rating of the machine, while 1.0 is an operational limitation to ensure circulating currents are minimized. The load band for DG 11 and 12 is provided to avoid routine overloading of the TDI DG. Routine overloading may result in more frequent teardown inspections in accordance with vendor recommendations in order to maintain DG OPERABILITY.

The 31 day Frequency for this Surveillance is consistent with the industry guidelines for assessment of diesel generator performance (Ref. 14).

Note 1 modifies this Surveillance to indicate that diesel engine runs for this Surveillance may include gradual loading, as recommended by the manufacturer, so that mechanical stress and wear on the diesel engine are minimized.

Note 2 modifies this Surveillance by stating that momentary transients because of changing bus loads do not invalidate this test.

Note 3 indicates that this Surveillance shall be conducted on only one DG at a time in order to avoid common cause failures that might result from offsite circuit or grid perturbations.

Note 4 stipulates a prerequisite requirement for performance of this SR. A successful DG start must precede this test to credit satisfactory performance.

SR 3.8.1.4

This SR provides verification that the level (expressed as an equivalent volume in gallons) of fuel oil in the day tank is at or above the level which ensures adequate fuel oil for a minimum of 30 minutes of DG operation at the maximum expected post LOCA load.

(continued)

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.8.1.14 (continued)

≤ 0.9. This power factor is chosen to be representative of the actual design basis inductive loading that the DG could experience. During the test the generator voltage and frequency is 4160 ± 416 volts and ≥ 58.8 Hz and ≤ 63 Hz within 10 seconds after the start signal and the steady state generator voltage and frequency is maintained within 4160 ± 416 volts and 60 ± 1.2 Hz for the duration of the test.

The 18 month Frequency is consistent with the recommendations of Regulatory Guide 1.9 (Ref. 3) takes into consideration plant conditions required to perform the Surveillance; and is intended to be consistent with expected fuel cycle lengths.

This Surveillance is modified by two Notes. Note 1 states that momentary transients due to changing bus loads do not invalidate this test. The DG 11 and 12 load band is provided to avoid routine overloading of the TDI DG. Routine overloading may result in more frequent teardown inspections in accordance with vendor recommendations in order to maintain DG OPERABILITY. Similarly, momentary power factor transients above the limit do not invalidate the test. Note 2 stipulates that credit may be taken for unplanned events that satisfy this SR. Examples of unplanned events may include:

- 1) Unexpected operational events which cause the equipment to perform the function specified by this Surveillance, for which adequate documentation of the required performance is available; and
- 2) Post maintenance testing that requires performance of this Surveillance in order to restore the component to OPERABLE, provided the maintenance was required, or performed in conjunction with maintenance required to maintain OPERABILITY or reliability.

(continued)

BASES (continued)

REFERENCES

1. 10 CFR 50, Appendix A, GDC 17.
 2. UFSAR, Chapter 8.
 3. Regulatory Guide 1.9, Revision 3.
 4. UFSAR, Chapter 6.
 5. UFSAR, Chapter 15.
 6. Regulatory Guide 1.93.
 7. Generic Letter 84-15, July 2, 1984.
 8. 10 CFR 50, Appendix A, GDC 18.
 9. Deleted
 10. Regulatory Guide 1.137.
 11. ANSI C84.1, 1982.
 12. ASME, Boiler and Pressure Vessel Code, Section XI.
 13. IEEE Standard 308.
 14. NUMARC 87-00, Revision 1, August 1991.
 15. Letter from E.G. Adensam to L.F. Dale, dated July 1984.
 16. GNRI-96/00151, Amendment 124 to the Operating License.
 17. Generic Letter 94-01, May 31, 1994.
 18. GNRI-98/00016, Amendment 134 to the Operating License.
 19. GNRI-2000/00065, Grand Gulf Nuclear Station, Unit 1 - Issuance of Amendment Re: Generic Changes to Improved Standard Technical Specifications, Amendment 142 to the Operating License.
 20. ER-GG-2002-0466, Evaluation of P75 Standby Diesel Generators to Regulatory Guide 1.9, Rev. 3.
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