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September 27, 1985

NUCLEAR LICENSING & SAFETY DEPARTMENT

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

Attention: Mr. Harold R. Denton, Director

Dear Mr. Denton:

SUBJECT: Grand Gulf Nuclear Station
Units 1 and 2
Docket Nos. 50-416 and 50-417
License No. NPF-29
File: 0025/L-860.0
Supplementary Response to
Generic Letter 83-28, Item 1.2
AECM-85/0291

References: 1) AECM-84/0465 dated November 2, 1984
2) AECM-85/0237 dated August 5, 1985

Generic Letter 83-28 requested conformance to several NRC positions derived from an evaluation of the Salem ATWS events. References 1 and 2 provided MP&L's response to Item 1.2 of the generic letter. This letter provides responses to NRC questions raised in a telephone call between members of the NRC staff and MP&L on August 15, 1985 and should resolve Item 1.2 for the Grand Gulf Nuclear Station (GGNS).

Please advise if further information is required.

Yours truly,

L. F. Dale
Director

ARR/GWS/SHH:bms
Attachment

cc: (See next page)

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PDR ADOCK 05000416
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cc: Mr. J. B. Richard (w/a)
Mr. O. D. Kingsley, Jr. (w/a)
Mr. R. B. McGehee (w/a)
Mr. N. S. Reynolds (w/a)
Mr. H. L. Thomas (w/o)
Mr. R. C. Butcher (w/a)

Mr. James M. Taylor, Director (w/a)
Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dr. J. Nelson Grace, Regional Administrator (w/a)
U. S. Nuclear Regulatory Commission
Region II
101 Marietta St., N. W., Suite 2900
Atlanta, Georgia 30323

Question:

In Reference 2 (Attachment I, Section 3.2), are SOE points M71L604 A and B an indication of demand for containment isolation or a confirmation of isolation?

Response:

SOE Points M71L604A and B trip when the following events occur:

- a. Associated division group 6A valves close
- b. Associated division containment ventilation isolation dampers close
- c. The post accident sampling manually operated valves are closed.

These points are derived from valve limit switches and as such are confirmatory indications.

Question:

Referring to Reference 2 (Attachment I, Section 15), the NRC recommended that MP&L evaluate recording turbine bypass valve position on a system other than GETARS to increase diversity.

Response:

BOP points N30N026A, B, and C are being added to the BOP Computer Post Trip Log. This will provide actual turbine bypass valve position information on the BOP Post Trip Log.

Question:

In Reference 2 (Attachment I, Section 20.2), what are SOE points N31K214 and N31K234? Are they related to the trip setpoint?

Response:

SOE points N31K214 and N31K234 are associated with turbine trip on low condenser vacuum.

Question:

The NRC would like information on specific activities that GETARS will be used for other than Sentinel mode operation and an estimate of the percentage of time that GETARS will be in the Sentinel mode.

Response:

Presently the GETAR System at CGNS is utilized in all phases of plant operation. The GETAR System is kept in the Sentinel mode of operation, unless its monitoring capabilities are required to perform other functions. These

functions may include but are not limited to the following:

- a. Monitoring/Recording certain plant parameters during normal plant operation to insure that a particular instrument or system is functioning properly (for example, flow control valve position demand, flow control valve position, velocity controller outputs on flow control valves, or flow control valve function generator output).
- b. Monitoring/Recording specific plant parameters per procedure during the performance of a surveillance (for example, Control Rod Timing).
- c. Monitoring/Recording specific plant parameters during the startup/operation of certain plant equipment (for example, the monitoring of RCIC parameters during the startup and operation of RCIC for a surveillance). This type of monitoring may be performed as a good operating practice rather than a procedural requirement.
- d. A system or equipment retest following normal maintenance or design changes may require the use of GETARS (for example, monitoring feedwater parameters after the implementation of a Design Change Package (DCP) on the Reactor Feedpump). This type of use will probably be fairly extensive following a plant outage.
- e. Monitoring/Recording system expansion during heatup of equipment.

With the present, known uses for GETARS, it is estimated that during power operation GETARS will be in the Sentinel mode greater than 90% of the time, including down time for maintenance. However, it must be realized that GGNS has just recently entered the commercial stage of operation and the uses of GETARS could increase; therefore, the availability is subject to change. In any case, this change (if any) is not expected to have much effect on the 90% availability.

Question:

What is the availability of the BOP computer?

Response:

The availability of the BOP plant computer can be based on two parameters. One parameter is the total time the computer is on line. The other is how well the computer gathers data during a scram. Prior to 8/19/85 there was no log kept for when the computer was down or needed to be re-booted. From 8/19/85 to 9/10/85, a log was kept and the percentage of availability when the plant was at power was 96.5%.

The ability of the BOP computer to collect data during a scram has been a problem that is being addressed in several ways. The disk memory has been replaced with a solid-state memory because the disk memory would lock-up during a scram due to the large quantity of data. On 8/23/85 and 9/16/85 the plant scrambled, and the BOP computer, with the new solid-state memory, collected all required data.

In addition, dual operation of the BOP computer is being implemented. With both BOP computers running, dual operation will allow one computer to perform the data acquisition function (scanning points) and the other computer to perform the man-machine interface function (generating printouts). If one computer is down, then the solo mode of operation will be automatically engaged. In this mode, one computer performs both the data acquisition and man-machine interface functions. To date, solo operation has been in use at GGNS. It is expected that dual operation will increase overall system reliability.

To ensure that the software and data points used on the BOP computer are what is required for plant operation, MP&L's computer section is writing two configuration management procedures (a Data Base Control Procedure and a Software Control Procedure). These procedures will be based on IEEE 828 - 1983, Software Configuration Management Plans; and ANSI N413 - 1974, Guidelines for Documentation of Digital Computer Programs. The time frame to complete this activity and any other improvements which may be identified is 12 to 18 months. At that time the BOP computer should have a reliability greater than 98%.