



RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) / PRIVACY ACT (PA) REQUEST

2000-0340

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RESPONSE TYPE



FINAL



PARTIAL

REQUESTER

Nancy Chapman

DATE

SEP 25 2000

PART I. -- INFORMATION RELEASED

- No additional agency records subject to the request have been located.
- Requested records are available through another public distribution program. See Comments section.
- APPENDICES Agency records subject to the request that are identified in the listed appendices are already available for public inspection and copying at the NRC Public Document Room.
- APPENDICES **A** Agency records subject to the request that are identified in the listed appendices are being made available for public inspection and copying at the NRC Public Document Room.
- Enclosed is information on how you may obtain access to and the charges for copying records located at the NRC Public Document Room, 2120 L Street, NW, Washington, DC.
- APPENDICES **A** Agency records subject to the request are enclosed.
- Records subject to the request that contain information originated by or of interest to another Federal agency have been referred to that agency (see comments section) for a disclosure determination and direct response to you.
- We are continuing to process your request.
- See Comments.

PART I.A -- FEES

- AMOUNT * You will be billed by NRC for the amount listed. None. Minimum fee threshold not met.
- \$ **49.55** You will receive a refund for the amount listed. Fees waived.
- * See comments for details

PART II.B -- INFORMATION NOT LOCATED OR WITHHELD FROM DISCLOSURE

- No agency records subject to the request have been located.
- Certain information in the requested records is being withheld from disclosure pursuant to the exemptions described in and for the reasons stated in Part II.
- This determination may be appealed within 30 days by writing to the FOIA/PA Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Clearly state on the envelope and in the letter that it is a "FOIA/PA Appeal."

PART II.C COMMENTS (Use attached Comments continuation page if required)

The fees for processing your request are:

Search: \$ 9.75
 Review: 39.00
 Duplication: .80
 TOTAL: \$49.55

You will be billed by the NRC Division of Accounting in the amount noted above.

SIGNATURE - FREEDOM OF INFORMATION ACT AND PRIVACY ACT OFFICER

Carol Ann Reed

**APPENDIX A
RECORD BEING RELEASED IN ITS ENTIRETY**

<u>NO.</u>	<u>DATE</u>	<u>DESCRIPTION/(PAGE COUNT)</u>
1.	10/5/00	Memo from S. Singh Bajwa to Charles Hehl, subject: Calvert Cliffs - Task Interface Agreement Regarding Minimum Load Requirements for the SACM Diesel Generator (TAC NO. MA1687) (4 pages)

586-2626



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

October 5, 1998

MEMORANDUM TO: Charles W. Hehl, Director
Division of Reactor Projects
Region I

FROM: S. Singh Bajwa, Director
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Singh Bajwa for 5513

SUBJECT: CALVERT CLIFFS - TASK INTERFACE AGREEMENT REGARDING
MINIMUM LOAD REQUIREMENTS FOR THE SACM DIESEL
GENERATOR (TAC NO. MA1687)

The emergency diesel generator (EDG) 1A for Unit 1 at Calvert Cliffs was manufactured by SACM of France. This EDG, primarily associated with Unit 1, is also needed to support No.11 Control Room (CR) heating, ventilation and air conditioning (HVAC) for Unit 2 when it is operating. The Baltimore Gas and Electric (BGE) Company, recently found that the SACM EDG requires a minimum load of about 30% of its continuous rating (1620 kW) to ensure long-term reliable operation. With Unit 1 in Mode 5/6 and 1A EDG required to be operable to support 11 CR HVAC, the maximum expected load on 1A EDG is 350 kW. According to the manufacturer, the 1A EDG can run unloaded for 8 hours without any degradation. However, engine degradation will occur if this EDG is operated at less than 30% for an extended period of time (>approximately 1 to 2 days). If the EDG is operated for less than 30% load, a "clean-out" run of at least 50% load for 1 hour will reset the 8-hour restriction for minimum load. When Unit 1 in Mode 5/6 or defueled, there is insufficient load available for the 1A EDG to meet the minimum 30% load requirement.

BGE had installed a temporary non-safety-related load bank as a dummy load to be utilized for loading the 1A EDG, in the event sufficient equipment is not available when Unit 1 is in Modes 5/6. A trailer mounted, load bank assembly was attached to 4 kV Bus 17 to load the 1A EDG above the minimum requirement should there not be enough load available on Bus 11/17. Procedures are in place for operations to manually close in the load bank within 8 hours of the start of less than 30% power operation of 1A EDG. The construction and physical arrangement of the load bank assembly was such that it had a high probability of withstanding severe weather and seismic event. A spare, trailer mounted, load bank assembly of at least 1500 kW was located offsite and was available to be onsite within 12 hours. In the unexpected event of a 1A EDG failure, EDG "OC" (alternate ac power source) can also provide power to 11 CR HVAC. Also, with Unit 1 in Mode 5/6 or operating and 1A EDG required to be operable, BGE would have made available a pre-identified equipment for loading the 1A EDG in order to meet the minimum load requirement of 30%. This equipment did not have to be running but made available to be started on the 1A EDG should a LOOP occurred in Unit 2. If operations desired to take an identified piece of equipment out of service, an equivalent load was to be substituted.

The Task Interface Agreement memorandum from you to J. A. Zwolinski, dated May 7, 1998, requested NRR to review the safety significance of this concern and determine:

A/1

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1. Whether it is acceptable for BGE to operate in the current condition with a non-safety-related load bank as the load for the safety-related SACM EDG. Does BGE need to meet the single failure criterion for the compensatory measure?
2. Will it be acceptable for BGE to operate both units with the load list approach without NRC approval?
3. If this condition involves a USQ?
4. Whether the minimum load requirements affect the station blackout SBO SACM EDG and compliance with the rule.

The Electrical Engineering Branch (EELB)/Division of Engineering has reviewed this concern and determined that based on the information available for our review it is not acceptable for BGE to use a non-safety-related load bank to meet the minimum load requirement of 30% for the safety-related SACM EDG because the non-safety-related load bank may fail in a manner that could render the EDG inoperable. Since BGE has a pre-identified list of equipment that can be made available during the Unit 1 outage, we find no reason for BGE to use a non-safety-related load bank to satisfy the minimum load requirement for the SACM EDG. It is our understanding that due to the uniqueness of the past Unit 1 refueling outage BGE could not make the necessary equipment available to meet the minimum 30% load requirements and had planned to use the non-safety-related load bank. In the future, however, BGE must make sure that the required minimum equipment is always available when Unit 1 is in Mode 5/6. We believe by proper planning BGE can achieve this goal.

With regard to the use of the pre-identified list of safety related equipment without NRC approval, we find BGE's load list approach to be reasonable and feel that BGE need not get NRC approval prior to its use. However, BGE must have procedures in place to ensure that the minimum load requirement is met. If for some reasons these loads are not available, the EDG should be declared inoperable.

In determining whether this issue involves an unreviewed safety question (USQ), the guidance in Generic Letter 91-18 (GL), Rev. 1, "Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded and Nonconforming Conditions" was used. The GL guidance relates to resolution of degraded conditions and non-conforming conditions, and presents a process that a licensee may follow to restore or establish acceptable conditions to continue operation or place the plant in a safe condition and to take prompt corrective action upon identification of such a degraded or non-conforming condition. In accordance with GL 91-18, changes to the licensing basis as resolution of a degraded or nonconforming condition require a 10 CFR 50.59 evaluation. Thus, if the use of a nonsafety-related load was necessary as a final solution to assure the operability of the SACM EDG, this change to the licensing basis would constitute an USQ. In accordance with 10 CFR 50.59, a proposed change shall be deemed to involve an USQ (1) if the malfunction of the equipment important to safety previously evaluated in the safety analysis report may be increased and 2) if malfunction of a different type than any evaluated previously in the safety analysis report may be created. We believe that the malfunction of the nonsafety-related load bank could prevent the SACM EDG from performing its safety function when required. Therefore, the SACM EDG must not depend on the nonsafety-related load bank for operation as a final change to the plant.

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Part of a licensee's corrective action may include reliance on a compensatory measure as an interim step to restore operability until the final corrective action is complete. Since the implementation of the compensatory action (the use of non-safety loads to temporarily resolve the problem) is expected to be used only once and thus is not viewed as a final change to the facility and it did not have the potential to affect other components or systems, which are not supplied by the SACM EDG, the proposed interim action is not reviewed as a change to the FSAR-described facility that is subject to a 10 CFR 50.59 evaluation, in accordance with GL 91-18. Since no 10 CFR 50.59 determination was required under GL 91-18, no USQ exists. However, the final resolution of the non-conforming condition must be subjected to a 10 CFR 50.59 evaluation. Moreover, it should be noted that repeated implementation of the corrective action to compensate for the lack of equipment in Modes 5/6 to assure operability of SACM EDG may constitute a failure to take appropriate corrective action in accordance with Appendix B.

With regard to question 4 above, it is our understanding that the SBO EDG is also an SACM engine, therefore, the minimum load requirement of 30% to ensure long-term reliable operation without degradation will also apply for the SBO EDG. However, it should be noted that since Calvert Cliffs is a 4-hour coping plant with an alternate ac source and the SACM EDG can run unloaded for 8 hours without any degradation, the minimum load requirement of 30% for sustained operation in this case would not be applicable. The minimum time that a plant should be able to cope with an SBO is based on the probability of an SBO at the site as well as the capability for restoring ac power for that site.

We hope the above answers your questions about the SACM EDG minimum loading requirements.

Dockets Nos. 50-317
and 50-318

cc: L. Plisco, RIJ T. Gwynn, RIV
G. Grant, RIT

October 5, 1998

- 3 -

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Dockets Nos. 50-317
and 50-318

Original Signed by:
G. Vissing, Acting Director

cc: L. Plisco, RII T. Gwynn, RIV
G. Grant, RII

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