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ELECTRIC ENGINEERING
DEPARTMENT

October 15, 1980

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

Attn: Mr. Steve L. Ramos (Mail Stop 242 Phillips)
Emergency Preparedness Program Office

Gentlemen:

Baltimore Gas and Electric Company is pleased to provide detailed comments on NUREG-0696, "Functional Criteria for Emergency Response Facilities". These comments are supplemented by comments submitted in our behalf by KMC, Inc. and its Coordinating Group on Emergency Preparedness Implementation in a letter dated 9/29/80.

1. It does not appear that there is sufficient technical justification for the requirements of NUREG-0696 pertaining to the installation of Nuclear Data Link (NDL) or to the design and instrumentation of the Emergency Operations Facility (EOF).

2. The location of the EOF has been the subject of much discussion. We feel that the lack of guidance from NRC on the location of the EOF shows that the specific intended uses of the EOF have yet to be determined. Therefore, the design and instrumentation requirements for the EOF are indeterminable. If, for instance, it is acceptable to place the EOF onsite but outside of the protected area, it is difficult to perceive situations when the EOF will be both necessary and accessible. On the other hand, if the EOF can be as far as 10 miles away from the site, it is difficult to perceive situations where emergency personnel would be willing to remain that far away from the "action" or how an EOF that far away could facilitate face-to-face communications or why a facility that far away must have design basis shielding and ventilation systems.

3. It is a fact that NRC is having the NDL designed to handle about 140 separate data inputs from each reactor. However, Mr. V. Stello of OI&E has stated that the EOF and Technical Support Center (TSC) will only receive "a dozen or two" parameters with which to assess plant safety. What possible justification could NRC have for importing so much more data into it's Incident Response Center (IRC)?

4. We question the need for the Data Acquisition System Processor (DASP) It is clear that such a system is <u>necessary</u> for NDL, but vital information can be transmitted to the TSC satisfactorily using other means much less complex than the DASP.

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5. There is an alternate means of providing the NRC's IRC with plant data which is far less complex and expensive and which is much less susceptible to misuse than NDL. For instance, routine plant data can be supplied over normal commercial telephone lines; emergency data can be reported immediately over a dedicated, secure "hot-line"; and follow-up confirming data can be transmitted via high speed telecopier. Even if just on the basis of economics, NRC should justify their preference of NDL over this type of system.

6. NUREG-0696 appears on the surface to provide "functional criteria" for emergency response facilities, but in fact it specifies technical requirements.

7. The design criteria and manufacturing standards for the SPDS and associated displays as discussed in NUREG-0696 are confusing. Very high reliability of the overall system is required but not all parts of the system need be of the same reliability and quality. Seismic criteria and IEEE criteria are illogical. Human factors consideration is specified in the SPDS design even though the existing Control Room displays and controls are familiar and well-understood without human factors consideration, etc.

8. The design, construction, fitting-out and security requirements for the EOF are certain to push its cost well into the millions of dollars. In view of the many design improvements already required of operating plants, we feel that a detailed cost-benefit study should be performed by NRC before the requirement for an EOF of the described scope is finalized. It should be borne in mind that an accident so severe as to require the need for an EOF is still not expected to occur during the design life of a given plant. This is especially true of already-operating plants since their remaining expected life is shorter than for new or future plants. Additionally, an EOF is not likely to be required more than once based on the continued problems associated with restoring the TMI site to operational status.

9. It is not clear how NRC intends to tap off the signals to supply data to NDL. Monitoring hot leg thermocouples at Calvert Cliffs is almost certain to result in interaction of the non-safety related NDL with at least two channels of our safety-related instrumentation.

10. Provision of real time data to the EOF and IRC via non-safety related data transmission systems for the purpose of enabling the EOF and IRC to make decisions and recommendations which could impact on the safety-related operations of the power plant is dangerous and clearly unacceptable. If the situation was reversed and the licensee was requesting permission to install such a system at a remote location for the purpose of directing plant operations, NRC would quickly disapprove the request on the basis of the potential for adverse functional feedback.

11. Other comments include:

a. The schedule for implementation is extremely unrealistic;

b. Duplication of data/indications in several places can be counter-productive in an emergency.

c. The function and supposed expertise of NRC's Emergency Management Team is cloudy;

d. The ultimate responsibility for actions taken at NRC's direction needs definition;

e. Providing real time data to NRC without the benefit of their access to the Control Room environment can lead NRC to call the Control Room on the hot-line and disrupt the situation. Experience and common sense tell us that a ringing telephone demands attention.

We hope that these comments will give you some idea of the importance of this whole area and of its potential for mismanagement. We will, of course, continue to meet our required commitments in this area, but we genuinely hope that these and other concerns of the licensees will be adequately resolved before any steps are taken toward implementation.

Sincerely yours,

R. F. Ash
Chief Nuclear Engineer

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cc: Mr. Samuel J. Chilk
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