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ELECTRIC ENGINEERING DEPARTMENT

March 29, 1980

DOCKET NUMBER  
PROPOSED RULE PR-50 (27)  
(45 FR 6793)

Office of the Secretary  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Attention: Docketing and Service Branch

Gentlemen:

Baltimore Gas and Electric Company appreciates the opportunity to comment on the proposed rulemaking regarding whether or not to make participation in the Nuclear Plant Reliability Data System (NPRDS) mandatory. Our comments are in the form of answers to the 21 questions contained in the Federal Register notice.

There is no apparent basis for mandatory participation in NPRDS nor is there any basis for or logic in having the NRC administer the system. The NRC is provided with enough information under mandatory programs such as Licensee Event Reports and Monthly Operational Status Reports that it should first attempt to use this information to determine the need for a generic-applicability study of a particular component or class of failure. NPRDS, the evolving Generator Availability Data System (GADS), and the ultimate National Data System will then be available to provide independent assessment of generic applicability.

Question No. 1

How should NPRDS effort be apportioned between plant availability and improving plant safety? Where should the emphasis be?

Response

The purpose of NPRDS is to provide meaningful, long-term failure statistics on systems and components important to nuclear safety, and should not be changed. NRC should use analysis of LFR's and Monthly Operational Report data as the primary method of detecting important plant safety problems, and safety alerts to industry. NPRDS and GADS can be used as backups to provide additional detailed information.

Question No. 2

How should NPRDS data be used by industry, the public and the NRC to achieve this emphasis? What other uses, if any, should be made of NPRDS data?

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Response

The NPRDS data should be used by the industry to:

1. Improve component and system reliability.
2. Optimize surveillance and test schedules.
3. Identify failure trends.
4. Identify spare parts needs.

Question No. 3

How should NPRDS data be gathered and analyzed to facilitate recommended uses?

Response

We have learned from our experience with NPRDS that data gathering should take place at the plant. This is the only way complete, accurate information can be collected and reported.

Question No. 4

Who should alert appropriate persons concerning problems uncovered from analysis of NPRDS data? Who should initiate design, maintenance or operating improvements?

Response

The organization doing the analysis should alert appropriate persons concerning problems. Design, maintenance and operating improvements should be initiated by the utility or the equipment vendor. Generic problems should be handled by the equipment vendor or NSAC as appropriate.

Question No. 5

What systematic analysis is conducted currently by licensees and the public? To what extent and to what purpose should each licensee, the NRC and the public analyze data?

Response

In our organization we have used the NPRDS data bank to locate utilities that have equipment similar to our own. The purpose in one instance was to compare maintenance problems on a piece of equipment. In the second instance, we used the data bank to locate a pump motor similar to one of ours that had to be replaced within a time frame established by our Technical Specifications. The utility should have the flexibility to perform the analysis that will best benefit them.

Question No. 6

If NPRDS reporting is made mandatory, what form of NPRDS management (i.e. industry, NRC or joint industry/NRC) will best lead to fully responsive reporting and to meaningful analysis?

Response

Regardless of whether the NPRDS system becomes mandatory, the management should remain as a joint effort of the utility, NSSS vendor, and NRC. The NPRDS program has had many growing pains in the past, but we feel that a continued cooperation of effort among the participating organizations will best lead to responsive reporting and meaningful analysis.

Question No. 7

To what extent, if any, should the NRC manage NPRDS reporting and data analysis?

Response

The NRC should not be allowed to manage any phase of the NPRDS. NRC involvement should be limited to that of participant and user. NPRDS is not meant to be a tool for rapid assessment of near term safety concerns. It is a long term statistical base and to twist its purpose will be counter to the goals of the system.

Question No. 8

If NPRDS reporting is made mandatory, how should the NRC inspect and enforce mandatory licensee participation? Should licensees be subject to enforcement penalties for non-compliance with NPRDS requirements?

Response

First, NRC should not be involved in inspection and enforcement of the NPRDS. The system is more than capable of evaluating the degree of participation by its contributors. To replace industry control with NRC control would be to smother the spirit and flexibility of NPRDS with government bureaucracy.

Question No. 9

What improvements should be made to the NPRDS manual or other guiding vehicle to enhance uniformity of reportable scope, completeness and accuracy of reporting, and usability of the data?

Response

The largest improvement could be made if the reportable scope for the NPRDS program was better defined. It is our understanding that an ANSI N18-20 subcommittee has been established to develop this guideline, and that considerable progress is being made.

Question No. 10

Any data gathering system needs feedback to maintain and upgrade system capability in the face of changing events, methodological advances and other factors. Feedback is particularly necessary to modify data gathering activity upon which the whole analytical system rests. What feedback features, if any, should be addressed by rule making?

Response

Feedback from NPRDS to the ANSI N18-20 Subcommittee, chaired by Mr. R. L. Haueter, provides an adequate mechanism for updating and improving the NPRDS. No rulemaking is desirable or required in this area.

Question No. 11

Should the NPRDS and LER systems be restructured to avoid overlapping data requirements or should present system formats be retained?

Response

LER should be limited to significant events requiring rapid notification. NRC's Monthly report and NPRDS will provide additional data under a mandatory and a voluntary system.

Question No. 12

In the event you recommend eliminating duplication between LER and NPRDS reporting, how would you restructure each system's reporting requirements? Comment specifically on the idea expressed in summary paragraph 8 of limiting LER reporting to items of major safety significance. Should such restructuring be done simultaneously with making NPRDS reporting mandatory or should ongoing NPRDS and LER upgrading efforts continue separately?

Response

See response to question No. 11. NPRDS does not have to be made mandatory as NRC's Monthly Operational Report contains effectively the same information and is already mandatory.

Question No. 13

Do you agree with the summary paragraph 2 estimate of a minimum of 3500 components as an appropriate scope? Assuming a reportable scope of 3500 components, how many NPRDS failure reports should be expected per month per operating plant?

Response

At the present, our baseline data consists of slightly over 3500 components per unit. Because we are in the process of trying to "clear up" our baseline data and the N18-20 subcommittee is in the process of defining the reportable scope, we could expect a slight increase in the number, but it would be difficult to predict at this time. The number of failure reports per month would be difficult to judge. There are too many factors that affect the number of failures reported, i.e. outages, age of the unit, generic problems, etc.

Question No. 14

Should the scope of systems and components presently summarized by the NPRDS manual be expanded or contracted and, if so, in what areas?

Response

We expect a slight expansion of the reporting scope when it becomes better defined by the N18-20 subcommittee. Expanding the scope of NPRDS beyond the components directly related to reactor safety is not recommended nor would it be beneficial to the program.

Question No. 15

Do the costs of preparing and submitting failure reports differ between the LER and NPRD systems? What do you estimate these costs to be?

Response

We have not had the need nor opportunity to compare the relative costs of these systems and suggest that such a question be asked directly of licensees in a separate letter.

Question No. 16

Are the per-plant figures of \$75,000 to \$200,000 for one-time development of NPRDS engineering data and \$50,000 for annual NPRDS reporting considered valid, or are these figures understated or overstated?

Response

At today's prices, the cost will run well over \$75,000 per unit for submitting the engineering data. The cost of maintaining the data base may be slightly overstated, but may be an acceptable ball park number. This is, of course, based on the assumption that the present system will not be expanded, nor reporting procedures altered significantly. If this system is expanded, these costs could rise between six to eight times the current amount.

Question No. 17

What alternatives to mandatory reporting would provide the data necessary for complete and accurate reliability analysis and at what level of assurance?

Response

The primary goal of NPRDS should continue to be plant safety, let the utility apply standards in availability and reliability areas.

Question No. 18

Do the benefits to the utility and the public of improved availability and increased reactor safety warrant the cost of NPRDS, or is there a less costly way to equivalent benefits in regulatory action?

Response

When NRC and NSAC start using the data already available, we should see benefits for our costs. Any regulatory action taken will increase our costs and cause the system to be more expensive for the same benefits.

Question No. 19

How should the NPRDS be funded? Should industry fund fully, or should the NRC contribute funds to support the industry system?

Response

If the system is left voluntary, the funding should remain the same.

Question No. 20

Should the six early design plants, excluded when NPRDS commenced, continue to be excluded, or should all plants be required to participate?

Response

Since essentially duplicating data is submitted by all plants in their monthly reports, there is no need to include them in NPRDS.

Question No. 21

Certain operator errors must now be reported within the scope of the LER system. Furthermore, NPRDS reports sometime include corresponding human error information. To what extent, if any, should an improved NPRDS collect man-machine interface data and perform reliability analyses which considers human factors?

Response

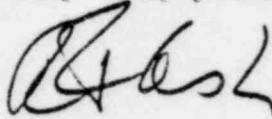
No change is needed to NPRDS to collect this data. The LER system and the NRC Monthly report cover this area for safety-related and non safety-related areas. NPRDS duplicates the data on safety-related equipment failures caused by human error.

In summary, NPRDS can be a valuable tool for developing a nationwide program for determining long-term generic implications of seemingly unrelated equipment failures. Such a system cannot be helped by a high pressure push to force it to do things it is not designed to do. Such action will only serve to complicate the system to the point where participants become disenchanted with it and treat it as just another Government requirement.

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We recommend that NRC not proceed with rulemaking and give the industry and licensees a chance to rationally evaluate their needs in this area and develop the proper systems for serving those needs.

Very truly yours,



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