

MINUTES
OF
THE
EVALUATION OF LICENSEE EVENT REPORTS
SUBCOMMITTEE MEETING
WASHINGTON, D. C.
FEBRUARY 7, 1979

ACRS-1612
PDR 5/18/79

A meeting of the ACRS ad hoc Subcommittee on the Evaluation of Licensee Event Reports was held in Washington, D. C. at 1717 H Street, N. W. on February 7, 1979. The purpose of this meeting was to plan the ACRS Review of Licensee Event Reports for the calendar years 1976, through 1978. Notice of the meeting appeared in the Federal Register, Volume 44, Number 16, January 30, 1979. The schedule for discussion and a list of attendees at the meeting are attached. No written statements were received from members of the public and no requests were received from members of the public to make oral statements. The subcommittee did not issue, approve, or receive any written reports during the meeting.

EXECUTIVE SESSION (8:35 a.m. - 9:15 a.m.)

The Chairman reviewed the correspondence from Congressman Udall, Dr. Lewis, and Chairman Hendrie leading to the request by Chairman Hendrie for the ACRS to conduct a study of the Licensee Event Reports. He noted that the letter from Chairman Hendrie requested the ACRS to review LERs and establish a methodology which will identify those events which have implications for improved reactor safety. He also noted that Congressman Udall suggested that the study include a review of even relatively minor incidents to determine their cause and to look for opportunities to make improvements. He noted that a portion of the review should be directed to the identification of precursors to major accidents. He also pointed out that the primary purpose of the study is not to look for the worst events that have occurred.

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The Chairman characterized this study as being a trial review which should be completed in six to twelve months; the LERs to be covered are for the years January 1, 1976 through December 31, 1978.

He also reviewed the several sources of information that are available for the study in addition to the Licensee Event Reports.

The Chairman pointed out that the NRC Staff had formulated a new policy in February of 1977 on the criteria for AORs. He noted that the ACRS was not asked for assistance in formulating this policy and he suggested that the Committee might want to bring this omission to the attention of the Commission.

The Chairman next reviewed some possible approaches that the subcommittee might take in the review. He suggested that the LERs for BWRs might be separated from those for pressurized water reactors, and then further separated by system and component. Mr. Mathis suggested, as an alternative, to take a group of plants and evaluate the LERs from those individual plants. He felt that in this way the reviewer might be more alert to trends and potential common mode failures.

Finally, the Chairman reviewed some of the other benefits which may result from the study. They included: the adequacy of technical specifications; evaluation of the corrective actions taken from given LERs; the effect of human factors; potential grouping or clustering of events; the significance of given LERs in terms of WASH 1400 event-tree sequences and recommendations that might be included in the ACRS report to Congress on Reactor Safety Research.

Dr. Lawroski commented that the study appears to be a much larger effort than was originally conceived.

MEETING WITH THE NRC STAFF (9:30 a.m. - 12:15 p.m.)

The chairman invited Mr. Hartfield to discuss what information is available from the LER system, what are some of its limitations, and insights that he can offer. Mr. Hartfield responded that his group started work on the system in the middle of 1973 and since then there have been many changes.

in the data bank to satisfy the users of the system. He said from a safety standpoint there is a great deal of trivial information entered in the system, for example, set point drift events comprised about 10% of the total reports. There are also many missed surveillance tests and improper test frequencies reported. The technical specifications differ from plant to plant, and therefore, the reports from plant to plant differ. Mr. Hartfield next discussed the various sorts that can be called for from the data bank.

Mr. Hartfield's branch reviews all LERs against abnormal occurrence criteria and also checks to see if there is an indication of generic implications. The Chairman asked if there was any comparability between the abnormal occurrences and the events declared as interesting in the NSIC annual report. Mr. Hartfield replied that NSIC does their report independently of the NRC but that several of the interesting events would also be abnormal occurrences. In response to a question from the Chairman, Mr. Hartfield said that it would be difficult to search the data bank for clusters or groupings of events because most chains of events are reported on one LER. Mrs. Boyle responded that possibly with some re-programming it would be possible to search for a certain sequence of events that were reported separately.

In response to a question from Dr. Mark, Mr. Hartfield said that the LER system does not have the capability to report failures as a function of time and service; however, the NPRDS does have the capability to perform that.

Mrs. Boyle reported that a data file is being created on 10CFR Part 21 reports and it will be completed shortly. There are about one hundred Part 21 reports per year and some events are reported as both LERs and Part 21 reports. Some of the 21 reports are also repetitive.

The Chairman asked Mr. Hartfield to make some suggestions as to how the Licensee Operations Evaluation Branch can assist the Committee in its study. Mr. Hartfield suggested that the subcommittee take a few plants and study them. He suggested taking some similar plants that have been in operation for 4 to 5 years. In the case of older plants, he feels that there are probably not enough reports in the system to be able to identify trends. Mr. Hartfield said that he felt it would be too big a task to study all systems and components for all plants.

Dr. Kerr asked if there was some way that the trivial events could be eliminated. Mr. Hartfield replied that Reg. Guide 1.16 is being reviewed and revised. The revision will attempt to delete some of the categories that are reported. Mr. Hartfield added that nuclear power plants in some regions have more LERs than others, but they have not as yet looked to try to find out why. He also said that there is an indication that plants operating at higher capacity factors have a lower number of LERs. Mr. Etherington suggested that since there is a more detailed breakdown on the LERs for the year 1978, there might be some advantage in concentrating on that year.

Mrs. Boyle said that, partly because of a change in Reg. Guide 1.16 and partly because of a change in the technical specifications, the number of events reported promptly has decreased over the last few years and the number of abnormal occurrence reports has decreased in the last year or two. The change in reporting periods from 10 day to 30 day reports occurred about 1975. Mrs. Boyle said that when a particular incident is identified, such as water hammer, there is a marked increase in licensees reporting and identifying related events.

Mr. Hartfield said that his branch prepares monthly reports of events involving human error and they have been used by utilities in training programs; however, I&E has brought to his attention that frequently licensees categorize causes as component failure when it really should be personnel error.

Mr. McMillan added that with the change in sub-code cause in 1978, many events that were attributed to other causes in previous years are now being more properly categorized.

Mr. Crooks briefly explained how LERs are processed within the NRC Staff. The LERs are addressed to the regional I&E staff. The I&E inspector assesses the LER for its safety significance and for corrective actions and generic implications. The LER goes to the licensee individual project manager and various technical support groups. The Licensee Operations Evaluation Branch reviews the LERs to see that the coding is correct; reviews them against the criteria for abnormal occurrences; makes contact with others to see that there is appropriate follow-up action and processes the information into the computer system. When a supplementary report is filed, the LER file is updated.

Hard copies of all reports and narrative reports are also maintained by the Licensee Operations Evaluation Branch. Mr. Hartfield added that they also obtain reports similar to LER reports from France, Germany, Sweden, Finland and Italy.

The subcommittee decided to select two reactors for each vendor and request a print-out of these LERs for all three years. It was also decided to obtain a print-out by system and by component for each of the eight plants. The Committee consultants will be asked to review the systems and components and subcommittee members will be asked to review the LERs for the plants. In this way, every LER will have been reviewed independently by two different groups, Committee members and the consultants.

Dr. Kerr suggested that it might be useful to pick-out components and systems that are likely to cause most difficulty and concentrate on them. He added that we do have some ideas of things that are likely to cause problems and it might be best to concentrate on them at first in order to determine improvements that might lead to increased reactor safety. Dr. Moeller commented that he felt that after looking at the eight reactors, items that appear to be significant should be studied for all reactors. Something may be missed by this approach, but he indicated that the data must be reduced to a manageable level and the subcommittee would have to realize this.

The eight plants the subcommittee picked are as follows:

- . Zion I
- . Surry I
- . Calvert Cliffs I
- . Ft. Calhoun
- . Quad Cities I
- . Peach Bottom II
- . Oconee I
- . Three Mile Island I

Dr. Moeller and Mr. Wright agreed to make the LER assignments to the subcommittee members and the consultants.

For subsequent meetings, the chairman said that he would like to hold discussions with NRC contractors who are doing studies of LERs, the NSIC, the Division of Operating Reactors, the Office of Inspection and Enforcement, Dr. Hanauer and Dr. Lewis.

Dr. Mark asked Mr. Hartfield for any insights that he might offer as to the most frequent or troublesome event. Mr. Hartfield replied that there are certain kinds of events that are surprising and he cited as examples the following: freezing of instrument lines, loss of offsite power, including voltage drops, and events affecting several units. Mr. Mc Millan added some other examples including control rod drives on PWRs.

NOTE: A complete transcript of the meeting is on file at the NRC Public Document Room at 1717 H Street, N. W., Washington, D. C. or can be obtained from ACE Federal Reporters, Inc., 444 North Capitol Street Washington, D. C. 20001 (202-347-3700).

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SCHEDULE FOR EVALUATION OF LICENSEE EVENT
REPORTS AD HOC SUBCOMMITTEE MEETING

February 7, 1979

The subcommittee will meet in Room 1046 to make plans for its study of Licensee Event Reports.

The tentative schedule for the meeting is:

8:30 a.m.	Discussions with NRC Staff and NSIC on the LER data system
1:30 p.m.	Planning session to discuss future course of the ACRS study
5:00 p.m.	Adjourn

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ATTENDANCE

ACRS

D. Moeller, Chairman

S. Lawroski

W. Kerr

C. Mark

H. Etherington

W. Mathis

J. Ray

R. Wright, Designated Federal Employee

H. Alderman, ACRS Staff

A. Bates, ACRS Staff

NRC

R. Hartfield

J. Boyle

J. Crooks

J. Mc Millen

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