

Meeting Date: 3/1-2/79 Date Issued: 4/24/79

MINUTES

OF

THE EVALUATION OF LICENSEE EVENT REPORTS

SUBCOMMITTEE MEETING

MARCH 1 & 2, 1979

ACRS-1617 PDR 5/18/79

A meeting of the Ad Hoc Subcommittee on Evaluation of Licensee Event Reports was held in Washington, D. C. at 1717 H Street, N. W. on March 1 and 2, 1979. The purpose of this meeting was to discuss with certain NRC Staff organizations the types of analyses being performed or planned with LER's and any insights they might have to help in the study of Licensee Event Reports. The subcommittee also discussed some of the activities of the National Transportation Safety Board. Notice of the meeting appeared in the Federal Register, Volume 44, No. 32.

The schedule for discussion and list of attendees at the meeting are attached to the minutes. 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 (8:30 a.m. - 9:45 a.m.) (Transcript page 4-39)

The Chairman reviewed the history of the formation of the subcommittee and the objectives of the LER study. He also reviewed his plan (dated February 7, 1979) for the review of LER's. This included the charge to the Committee, as well as, sources of information for the study, and some of the approaches that can be taken toward the study. He said that the meeting would mainly be devoted to an exchange of ideas with the Staff and the subcommittee, seeing what consultants have learned up to this point, and plans for future work. Some of the considerations that Dr. Moeller suggested consultants keep aware of are: adequacy of Technical Specifications, corrective actions taken for Licensee Event Reports, and possible improvements to the LER system.

Dr. Moeller also reviewed his work on LER data for air cleaning and vertilation systems.

Dr. Mark emphasized two things mentioned by the Chairman, i.e., is the LER system bringing out all things which should be brought out, and are reports being submitted that need not be submitted?

Mr. Arnold remarked that greater benefit might be obtained by making an effort to improve maintenance operations, operator training and other considerations that go into safe operation of a nuclear plant rather than studying past LERs. He is concerned that real problems may not be related to the LERs which occur now; he felt that the subcommittee should try to get some sort of measure as to whether or not the LER's are a large part of potential safety problems in operation of nuclear plants.

Dr. Seale suggested that it might be worthwhile to look at the minimum level of reporting responsibility. He referred to the recent GAO report on the LER system and suggested that it may be an important source of information.

Mr. Michelson said that there is a hierarchy of reporting that goes on during design and construction that relates to operating plants, particularly design problems that did not get corrected and arise during operation.

DISCUSSION WITH DR. S. HANAUER (9:45 a.m. - 10:30 a.m.) (Transcript page 39-65)

The Chairman called on Dr. Hanauer to relate some of his experiences with what he considers to be some of the more important LERs and what methods he used for determining the significance of LERs. Dr. Hanauer said that he did not do any systematic or statistical studies of the LERs, and that he feels that LERs are exceptionally important and very useful. He said it is known that things are going to fail, or not always going to function correctly, and that is the reason redundancy is built into the plants.

For this reason, a large fraction of the LERs are uninteresting from a safety standpoint, but are important statistically; however, those which show unexpected and unforeseen events are the more important ones. In response to a question from Mr. Arnold concerning Dr. Hanauer's opinion as to whether or not the frequency in nature of LERs indicates plants might be less safe than reported in WASH-1400, Dr. Hanauer replied that in general things which happen are included in the event sequences of WASH-1400. In response to a question from Mr. Michelson, Dr. Hanauer said that he feels common mode failures are major contributors to the level of safety. One of the principal things that he looks for when he studies LERs is common mode failures and various forms of systems interactions. He said that he has found no short cut to studying LERs for common mode failures short of studying the LERs one at a time. He suggested that looking at all LERs for a given system together might reveal some common mode failures or systems interactions.

DISCUSSION WITH MR. LUDWIG BENNER, NATIONAL TRANSPORTATION SAFETY BOARD (10:30 a.m. - 11:30 a.m.) (Transcript page 65-98)

Mr. Benner offered some suggestions that he thought might be helpful to the subcommittee in its study of LERs. A clear objective of the reporting system should be defined. He said that he has observed two objectives of the system, one is whether the predicted reliability of the systems is being obtained and the other a desire to discover safety problems. He said that examining the safety aspects may be a little different problem than determining reliability. He said that in his experience with the NTSB he has observed a number of difficulties in dealing with various parties. One is a perceived self-interest of the people reporting the event. A second is a widely varying perception of the phenomenon. He noted that he has identified at least five different perceptions of accidents and he referred the subcommittee to an article presented at a meeting of the American Association for Automotive Medicine

He cautioned the subcommittee that whenever a standard data format is prescribed, there is an implicit assumption that the person designing the format understands the accident phenomena. He feels that the filling in of blanks is better geared to reliability data efforts rather than safety implications. In the NTSB, one way of getting over this difficulty is

using an event modeling technique, and he referred the committee to an article in the Journal of Safety Research which describes this technique. He encouraged the subcommittee to try to provide a comprehensive explanation of parallel event sequences and time relationships to provide an understanding of the safety significance of events in the reporting system. He also suggested that the NRC might consider a greater public participation in the LER system and its evaluation. Mr. Benner observed that in the NTSB investigation, the process in what happened in one accident is examined to try to prevent others from happening. The accident process can be related to standards criteria by reporting methods. He concluded his presentation by describing the NTSB accident investigation process, and answering general questions from subcommittee members and consultants.

DISCUSSION WITH D. EISENHUT, DIVISION OF OPERATING REACTORS (11:30 a.m. - 1:00 p.m.) (Transcript page 99 - 152)

Mr. Eisenhut described the process that is followed in DOR with LERs. When an LER comes to DOR it is distributed to the project manager of the plant involved who looks at it and provides a day-to-day screening function. The LER is also distributed to the technical review people who examine it to see its safety significance from an individual standpoint and from a generic standpoint. A subsequent screening process leads to a detailed review of certain LERs and can result in specific plant follow up, a generic study and subsequent report, the issuance in some cases of generic letters to licensees, or in revisions to NRC requirements. About ten technical reports have been published over the last twelve months. Topics covered include: steam generator experience, off-gas explosions, and pipe cracking experience. Other generic issues being looked at as a result of the generic reviews include: BWR safety relief valves and spent fuel problems. In response to a question from Mr. Michelson, Mr. Eisenhut said that often there is not enough detailed information in the LER to do a technical study and they have to go back to the licensees to get sufficient information. Mr. Eisenhut characterized the LER review process in DOR as having three tiers. The first tier is comprised of the very significant items which are screened out at the Assistant Director level and which have a potential for becoming abnormal occurrences. The second

tier is the technical staff looking at the LERs on a generic basis and issuance of a generic report on operating experience. The third tier is the technical review staff who, on a day-to-day basis, quite often brings significant items to the attention of management. The Division of Operating Reactors now issues two types of memoranda, operating experience memos and information memos. These are internal documents and highlight operating experience for people working in the licensing process.

Mr. R. Woodruff from Office of Inspection and Enforcement described how I&E fits into the LER processing process. The LER reports are addressed to the Director of the Regional Office having cognizance over the plant and the principal inspector is responsible for reviewing every LER that is submitted for his plant for accuracy and evaluation as to the generic application of the event. The principal inspectors' responsibilities are defined in the Inspection and Enforcement Manual. I&E headquarters receives copies of every LER and they determine whether or not there is a broad generic implication. Where there may be a licensing problem, a transfer of lead responsibility is made to DOR until action is completed. Mr. Woodruff said that every LER is followed by the principal inspector and eventually closed out. In response to a question form Mr. Michelson concerning non-conformance reports that are made during design and construction of a plant, Mr. Nichols, DOR, said that design deficiencies are reported to the Division of Project Management and I&E. Mr. Woodruff added that the construction deficiencies are handled by the construction inspectors and at discussions with the principal operations and inspectors. There is no formalized attempt to correlate construction deficiency reports with LERs during operation. In answer to a question from Mr. Etherington, Mr. Woodruff said that construction deficiencies are reported when it is discovered that the as built plant deviates from the design. Minor corrections, which are made when they are discovered are not reported.

Mr. Nichols attempted to describe for the subcommittee the sequence of events in the LER reporting process. For events requiring a fourteen day written LER, the licensee reports within 24 hours by telephone or telecopy to the region. The region informs I&E headquarters immediately and I&E headquarters

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communicates with NRR by telephone on these significant events. DOR also receives a copy of the I&E morning report which can contain issues not previously communicated by phone.

1&E publishes preliminary notifications on other events and these are sent to the Office Director. Each licensing project manager receives copies of LERs for his plant; Branch Chiefs receive a copy of all LERs under their cognizance. Each technical review Branch Chief receives a copy of LERs and he retains those within his technical discipline. They are passed on to the section chiefs and reviewers. The Branch Chief assures himself that all LERs have been looked at from a technical standpoint and action has been taken on those determined to be of significance to their branch.

DISCUSSION WITH MR. M. MEDEIROS, OSD (2:00 p.m. - 2:20 p.m.) (Transcript pages 154-165)

Mr. Medeiros discussed Reg. Guide 1.16 with the subcommittee and consultants. He summarized the nine categories of events requiring prompt submission of the LERs and the four categories of events requiring 30 day submission of LERs. A proposed revision of Reg. Guide 1.16 is in preparation. The revision is expected to provide better examples of the categories of prompt and thirty day reporting requirements. It will also update the forms in Reg. 1.16 and should provide for more uniformity in reporting from licensees. The proposed revision is also aimed at insuring that information required for safety significance is reported, and that the loop holes in the present reporting system are removed. The Staff review of the proposed revision should be completed during the month of April and it should be scheduled for public comment early in the summer.

DISCUSSIONS WITH PROBABILISTIC ANALYSIS STAFF (2:20 p.m. - 4:30 p.m.) Transcript pages 166-223

Mr. Vesely gave a brief introduction to the presentation which was made by Mr. Poloski of INEL. The program discussed is an effort to evaluate

risk and reliability implications of LERs. Evaluations of the effects of failures and the effect of failure frequencies is being investigated. Effects of failures on various system models and gross failure rates from the LERs are being determined. LER failure rate data will be compared to WASH-1400 data and if it is significantly higher will be substituted in WASH-1400 to determine changes in system unavailabilities.

Mr. Poloski discussed the details of the LER evaluation program. The objectives are to determine failure rates and confidence bounds for components using the LER file, to develop and use common cause analysis of LERs and to perform some statistical analyses of LERs and NPRDS data. The program is a three year program and at present INEL is determining gross failure modes for various components. The other objectives will be done after the components are analyzed. For the failure rate calculations, populations are obtained from various sources such as Tech. Specs, the NPRDS, the Gray Book, and the testing frequency. Dr. Zudans observed that the estimate of failure rate may be subjective because there is not a good statistical base for the analysis; a better statistical base of populations is needed.

Mr. Poloski described the coding of the LER data. Information is extracted from the LERs under study and coded into a one line summary of the significant information. Included in this one line summary are such things as causes for the failure, systems where the failure occurred, the failure type, whether it is common cause and/or recurring, and a description of the failure. When the data is coded, it is stored on an interactive program format that allows the data to be sorted and retrieved in a variety of formats.

Mr. Etherington observed that LERs constantly omit the cause and asked if the omission of the cause in the statistical analysis is wise.

Mr. Vesely replied that the program attempts to determine if the failures caused system unavailability to change, rather than trying to obtain more detailed information on the cause.

Mr. Poloski continued by describing the calculations made to obtain an estimate of failure rate. The total population of the component (which Dr. Zudans had questioned earlier) is determined from operating experience, maintenance data, FSARs.etc. When the data has been processed, a report is issued for

each component; the report contains the data assumptions made and descriptions of the failure coding used for the component, plus the failure rates and confidence bounds. A short discussion of the failures and observations found are also included in the report.

Mr. Poloski concluded with a short discussion of the progress to date; a report on control rods has been issued, and a preliminary report on pumps is scheduled to be issued in 2 to 3 weeks. A draft of an ECCS valve failure rate analysis has also been issued.

EXECUTIVE SESSION (4:30 - 4:55 p.m.) (Transcript page 233-253)

The Chairman called on each of the consultants who did not plan to attend the following day's meeting for comments.

Mr. Epler commented that he thinks the system is lacking in identification of what could be seemly important events. He cited two examples, one a failure considered to be significant and which was fixed, and another which could be significant but appears to be ignored today. The example which he considered to be significant and which was fixed is a small loss of coolant in any piece of pipe; an example of something which might be important would be the case of an invertor which failed without knowing the importance and caused a SCRAM of the system. Mr. Ditto commented that a great deal can be learned from LERs about generic deficiencies, design philosophies, and operator errors; he cited as an example the problem of set point drift which he termed a calibration problem and after re-calibration the problem is considered fixed. Mr. Ditto said that he does not believe LERs are the mechanism by which component failure rates can be determined accurately. A good breakdown is not obtained between failures and non-failures. In the case of instrument drift, this would not be reported as a failure, but it may require a re-design just as a component failure would. He said that he thinks the biggest obstacle is to learn the root causes of the events, not to get information of a component nature from LERs .

Mr. Lipinski's comments were similar to those of Mr. Ditto's. He has the impression that there are a lot of instrument drift reports being submitted and he feels that the solution lies in re-designing those instruments or changing the set point.

EXECUTIVE SESSION (March 2, 8:30 a.m. - 12:00 noon)

The Chairman made some comments on the current LER reporting system and some observations based on the previous day's meeting. The comments on the current system (see attachment 1) included overall recommendations, the adequacy of the reporting, and the need for improvements. He also reviewed the general scope of individual reports and some possible recommended analyses. Mr. Seale suggested that the subcommittee should look at how the LER loop is closed back to the vendor, and Mr. Etherington suggested that there should be better coordination between the NPRDS and the LER system. He observed that there is no centralized group looking at LERs and felt it might be useful for the subcommittee to have some more interaction with the NTSB.

Dr. Zudans commented that he does not believe the reliability analyses discussed by Mr. Vesely and Mr. Poloski on the previous day would lead to satisfactory results because they do not have the populations and do not have all the failures. The Chairman then asked each of the consultants present for his comments and for any specific items they have observed in their study of LERs thus far.

Mr. Parker observed that the LERs are a mixture of a significant and insignificant events. He suggested that they might be broken into four categories, those affecting the plant, those potentially affecting the plant, those affecting the public, and those potentially affecting the public.

An indication of severity could be given to each of the events. The ratios of the severities of the four categories could be compared to see if they are similar or changed, and a judgement could be made as to the importance of the four categories in terms of consequences of an event by itself, or its potential consequences.

Mr. Seale and Mr. Cromer both commented that they had each received over 200 LERs on the Boron-10 poison system and Mr. Seale thought a generic study of Boron 10 systems might be useful. Mr. Cromer observed that there were two types of leaks in the Boron system: pipe cracks and pin-hole leaks in pump casings. He also noted that centrifical pump lines were frequently plugged with Boron crystals and there were many seal problems in centrifical pumps. He also noted that there were many valve operator failures due to build-up of Boron crystals on the valve operators.

Mr. Seale commented that he had observed some problems associated with use of aluminum conductors, especially situations where the conductor was incompatible with the receptacle into which it fits. Mr. Cromer said that a new method to crimp connectors to aluminum cable was supposed to remedy this problem. Mr. Seale also noted that he had seen some LERs where in hydraulic flid had leaked on to electrical cables and deteriorated the cable insulation. He also inquired as to whether there might be some stress in fuel cladding due to rapid control rod movement. He felt that this is a problem with GE reactors in particular.

Mr. Arnold observed that it is difficult to make a judgement solely based on the information in the LER print-outs. He suggested as a first cut the problem might be attacked by meeting with all individuals who are involved in the LER process and trace the LER from its inception through all levels of management. A judgement as to whether the action taken is adequate could then be made. The subcommittee and consultants generally felt this was a good idea and each consultant was asked to pick three possible LER candidates for this exercise. It was agreed to discuss the proposal further at the next meeting and decide which LERs to trace.

Mr. Etherington observed that the cause code is omitted in many LERs and it is important that it be included. He also said that component failures seem to be the largest cause of LERs and that an LER analysis by components might be more useful than by systems or plants. He observed that improper

procedures and improper design procedures should decrease with time, but it is not apparent from his study of the LERs that this is happening.

Mr. Michelson suggested that it might be appropriate to look at LERs for all units at a plant rather than just the first unit. He also said that it is important to look at the time sequence of events. Mr. Michelson feels that the quality of the information entered onto the LER form is a function of the bias and self interest of the writer. He also said that construction deficiencies their corrective action and subsequent effect on LERs during plant operations are important.

Dr. Moeller concluded the meeting by informing the subcommittee consultants that within a short time a suggested scope of the final report would be drafted, format for the individual consultants' reports would be made, and a schedule for future meetings established.

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

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REVISED

SCHEDULE FOR EVALUATION

OF LICENSEE EVENT REPORTS

AD HOC SUBCOMMITTEE MEETING

MARCH 1-2, 1979

The Subcommittee will meet in room 1046 to continue its discussions of Licensee Event Reports for 1976-78.

The tentative schedule for the meeting is:

MARCH 1, 1979

8:30 a.m. 9:30 a.m.

10:30 a.m.

11:30 a.m.

1:00 p.m.

MARCH 2, 1979

8:30 a.m.

*:00 p.m.

EXECUTIVE SESSION DISCUSSION WITH S. HANAUER

DISCUSSIONS WITH MR. L. BENNER, CHIEF HAZARDOUS MATERIALS DIVISION, NTSB

DISCUSSIONS WITH DIVISION OF OPERATING REACTORS, D. EISENHUT

DISCUSSION WITH PROBABILISTIC ANALYSIS STAFF, A. BUHL

EXECUTIVE SESSION WITH ACRS CONSULTANTS

ADJOURN

ATTENDANCE LIST

ACRS

- D. Moeller, Chairman
- H. Etherington
- J. Mark
- R. Wright, DFE
- A. Bates
- H. Alderman
- J. Arnold, Consultant
- E. Epler, Consultant
- C. Michelson, Consultant
- W. Lipinski, Consultant
- S. Cromer, Consultant
- R. Seale, Consultant
- H. Parker, Consultant
- Z. Zudans, Consultant
- D. Johnson, ACRS Fellow
- S. Ditto, Consultant

NRC

- D. Eisenhut
- S. Hanauer
- E. Boyle
- J. Mc Millen
- R. Woodruff

NRC

- H. Ornstein
- J. Crooks
- M. Medeiros, Jr.
- F. Manning
- J. Murphy
- W. Vesely
- G. Edison
- P. Mc Grath
- L. Nichols

EG & G IDAHO

- C. O'Benchain
- J. Poloski
- F. Balkovietz
- M. Stewart
- W. Sullivan

OTHERS

- L. Benner, NTSB
- E. Legosey, SRA Corp.
- L. Kenwortny, IEAL
- J. Frazole, IEEE
- J. Mc Erne, KMC, Inc.
- A. C. Bivens, AIF

D.W.Moeller: 3/8/79

COMMENTS ON CURRENT LER REPORTING SYSTEM OBSERVATIONS BASED ON LER SUBCOMMITTEE MEETING ON MARCH 1 AND 2, 1979

1. Overall Recommendations

- a. The NRC should clearly define the goal of the LER reporting system.
- b. Care should be taken not to permit the reporting form to hamper full disclosure of the event.
- c. Every effort should be made to arrange the reporting system so as to enhance the discovery of the safety implications of each event.
- d. The NRC might consider developing procedures for greater public input into the LER reporting system and its evaluation.

2. Adequacy of Reporting

- a. The NRC should evaluate the possibility of over-reporting for some events and under-reporting for others. For example, an apparent over-abundance of LERs relative to set point drift (actually, errors in calibration) may be due to the set points being specified on too restrictive a basis in the Technical Specifications for certain power plants.
- b. The proposed revisions in Regulatory Onde 1.16 regarding removing loopholes and deficiencies should be carefully removed and evaluated prior to implementation.
- c. The NRC should seek to attain greater uniformity in the LER reporting system. This should include revisions to reduce potential biases of licensees in reporting, and possible differences in the depth of reviews of LERs by NRC inspectors. It should also include any revisions in the system necessary to reduce differences due to variations in the Technical Specifications for plants of different ages.

- d. The NRC should emphasize the need to seek out the cause of each LER (particularly to reduce the number of reported crents of unknown origin) and to cite the true cause versus simply naming the specific component in which the failure was observed.
- e. There is also a need for the NRC to review the LER reporting system with a view toward:
 - Increased reporting of information relative to systems interaction
 - (2) Changes in reporting and logging LERs so as to enhance data retrievability and analyses
 - (3) Better coordination and interchange between the LER and NPRDS reporting systems
 - (4) Improved centralization of LER handling and analyses within NRC
- f. Lastly, the NRC might consider a detailed study of the reporting mechanisms of the NTSB relative to possible improvement in the LER system.

3. Recommended Analyses

Subcommittee members and cor trants suggested a variety of studies and analyses that might be underraken or expanded with existing LER data. These suggestions included:

- a. A study should be made of construction deficiencies, corrective actions, and subsequent LERs to determine their impact at the plant operating stage. In essence, there appears to be a need for better communication during the CP and OL stages.

 In this regard, it was suggested that Subcommittee members be provided with a plant-by-plant printout of Construction Deficiencies as reported under Parts 21 and 50.55e. These, in turn, would be compared to subsequent LERs occurring at the same plant.
- b. The Subcommittee recommended that NRC studies or assure rates, and subsequent analyses of their implications relative to associated risks, should be continued.

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- c. One Subcommittee consultant suggested that the NRC consider placing counters on key components within operating plants to record the number of times they are called upon for response.
- d. Consideration should be given to conducting an analysis to determine whether the frequency of LERs that occur as a result of design errors or defective procedures decreases with plant operating lifetime. Presumably, if proper corrective measures are applied, this should be the case.
- e. To gain further insight into systems interactions, an analysis might be conducted of all LERs occurring at multi-unit stations.
- f. Limited studies should be conducted of "clusters" and "groupings" of LERs as well as their time of occurrence and sequence. This could provide useful information on possible precursors and on cause-effect relationships.
- g. An analysis might also be conducted to determine if the occurrence of certain classes of LERs occur more frequently at one plant versus another where the several plants are comparable in design. Such an analysis might provide data on the accuracy of the reported system, biases or selfinterests of the originators, or influencing factors of I&E personnel.
- h. The ACRS staff (perhaps ACRS fellows) should consider conducting comparison study of the same LERs as entered on the computer tapes at NSIC versus NRC Headquarters (NIH). This is to determine if the same care is used in entering and recording the data and whether different interpretations result from different personnel handling the basic raw data as submitted by licensees.

4. Other Considerations

a. Several Subcommittee members and consultants suggested that EPRI be contacted to determine what they are doing and to stimulate cooperative industrial efforts in solving some of the problems evidenced by LERs.

- b. The Subcommittee has been told that the Southwest Research Institute (which open the MPROS system) is collecting data on failure rates of given components within commercial nuclear power plants. Subcommittee members and consultants indicated they would like to have officials of SRI meet with us at a future meeting so as to provide further details on the NPROS system.
- c. The Subcommittee suggested that printouts be requested of LERs involving aluminum conductors and leakage of hydraulic fluids. Another suggestion was that a printout be obtained of all LERs that occurred as a result of lightning or thunderstorms. These, in turn, should be submitted to an ACRS consultant knowledgeable in the field of electrical systems for review and evaluation relative to their safety implications.
- d. Mr. Herbert Parker suggested that the LERs on air cleaning, monitoring, and ventilating systems be provided to Mr. Ronald L. Kathren of Battelle-Northwest Laboratories for review and evaluation. Mr. Kathren should also be provided with a copy of Dr. Moeller's paper on this subject.
- e. Subcommittee members expressed considerable interest in the analyses of human errors and requested that personnel from Iowa State University be requested to review their work at a forthcoming Subcommittee meeting. It was also suggested that the Subcommitte obtain the comments and suggestions of Mr. Hugh Warren, ACRS consultant, on the role of human errors as a contributing factor to LERs.

5. Future Work

Following review of the LERs provided to them, each consultant to the Subcommittee was asked to provide a list of up to 5 specific sequences of events that should be considered for follow-up action. On the basis of the suggestions received (which are to be provided no later than the time of the Subcommittee meeting scheduled for March 23 and 24), the Subcommittee will select three to five LERs for detailed indepth review.

The selected LERs will include those that were apparent successes as well as failures (in terms of corrective action) and the indepth review will include reports to the Subcommittee by plant personnel reporting the LER, I&E personnel involved, the associated vendor, and the NRC personnel responsible for logging the LER into the system, analyzing its implications, and determining the adequacy of corrective actions. In short, the Subcommittee wants to conduct a complete case history review on several key LERs.

Lastly, it was suggested that Subcommittee members be provided a schedule for future meetings, plus an outline of the proposed scope of the final report. These items have been developed and are attached.