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JUN 2 1987

Docket No. 50-255

Consumers Power Company  
ATTN: Dr. F. W. Buckman  
Vice President  
Nuclear Operations  
212 West Michigan Avenue  
Jackson, MI 49201

Gentlemen:

The NRC's Office for Analysis and Evaluation of Operational Data (AEOD) has recently completed an assessment of your Licensee Event Reports (LERs) from Palisades Unit 1 for the period of November 1, 1986 to April 30, 1987, as part of the NRC's Systematic Assessment of Licensee Performance (SALP) Program.

The results of this evaluation indicated some improvement in the quality of your LERs since the last evaluation. You have been rated an overall average LER score of 8.7 out of a possible 10 points, compared to a previous overall average LER score of 8.4 and a current industry average score of 8.3.

We are providing you a copy of AEOD's assessment prior to the issuance of the SALP 7 Board Report so that you are aware of its findings.

We appreciate your cooperation with us. Please let us know if you have any questions.

Sincerely,

ORIGINAL SIGNED BY C. E. NORELIUS

Charles E. Norelius, Director  
Division of Reactor Projects

Enclosure: AEOD Assessment

See Attached Distribution

8706090209 870602  
PDR ADOCK 05000255  
Q PDR

Yes  
5-25-87  
RIII  
JMB  
JMccormick-Barger/jp

YES  
RIII  
EAS  
Schweibinz  
5-28-87

Yes  
RIII  
BIB  
Burgess  
5/28/87  
RIII  
Guldmond  
5/28/87

Yes  
RIII  
Norelius  
6/1/87

IEU1  
//

Consumers Power Company

2 JUN 2 1987

Distribution

cc w/enclosure:

Mr. Kenneth W. Berry, Director  
Nuclear Licensing  
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LICENSEE EVENT REPORT (LER)  
QUALITY EVALUATION FOR  
PALISADES -  
DURING THE PERIOD FROM  
NOVEMBER 1, 1985 TO APRIL 30, 1987

## SUMMARY

An evaluation of the content and quality of a representative sample of the Licensee Event Reports (LERs) submitted by Palisades during the period from November 1, 1985 to April 30, 1987 was performed using a refinement of the basic methodology presented in NUREG-1022, Supplement No. 2. This is the second time the Palisades LERs have been evaluated using this methodology. A review of the overall scores resulting from this evaluation indicates some improvement has been made in that the Palisades LERs now use an outline format and have an overall average score of 8.7 out of a possible 10 points, compared to their previous overall average score of 8.4 and a current industry average score of 8.3 (Note: The industry average is the average of the latest overall average LER score for each unit/station that has been evaluated to date using this methodology).

The principle weaknesses identified in the text of the Palisades LERs involve the requirements to adequately discuss the safety consequences of the event and the corrective actions taken as a result of the event. The failure to adequately discuss the consequences and implications of the event prompts concern as to whether or not each event is being evaluated such that the potential consequences of the event, had it occurred under a different set of initial conditions, are being identified. The failure to adequately discuss corrective actions prompts concern as to whether or not all actions have been taken to ensure that the event or similar events will not recur. In addition, some abstracts are deficient in the area of root cause and corrective actions.

A strong point for the Palisades LERs is that the text discussions concerning the failure mode, mechanism, and effect of failed components, are well written for the LERs involving these requirements.

# AEOD INPUT TO SALP REVIEW FOR PALISADES

## INTRODUCTION

In order to evaluate the overall quality of the contents of the Licensee Event Reports (LERs) submitted by Palisades during the period from November 1, 1985 to April 30, 1987<sup>\*</sup>, a representative sample of the unit's LERs was evaluated using a refinement of the basic methodology presented in NUREG-1022, Supplement No. 2.<sup>1</sup> The sample consists of a total of 15 LERs, which is the maximum number of LERs considered necessary to have a representative sample. See Appendix A for a list of the LER numbers in the sample.

It was necessary to start the evaluation before the end of the assessment period because the input was due such a short time after the end of the period. Therefore, all of the LERs prepared during the assessment period were not available for review.

## METHODOLOGY

The evaluation consists of a detailed review of each selected LER to determine how well the content of its text, abstract, and coded fields meet the criteria of 10 CFR 50.73(b). In addition, each selected LER is compared to the guidance for preparation of LERs presented in NUREG-1022<sup>2</sup> and Supplements 1<sup>3</sup> and 2 to NUREG-1022; based on this comparison, suggestions were developed for improving the quality of the reports. The

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\* The sample of LERs selected for evaluation did not include those LERs submitted early in the assessment period as the earlier LERs were not prepared using the current procedures (i.e., they were prepared prior to the time Palisades implemented changes to their preparation procedures, which now included the use of an outline format for the text).

purpose of this evaluation is to provide feedback to improve the quality of LERs. It is not intended to increase the requirements concerning the "content" of reports beyond the current requirements of 10 CFR 50.73(b). Therefore, statements in this evaluation that suggest measures be taken are not intended to increase requirements and should be viewed in that light. However, the minimum requirements of the regulation must be met.

The evaluation process for each LER is divided into two parts. The first part of the evaluation consists of documenting comments specific to the content and presentation of each LER. The second part consists of determining a score (0-10 points) for the text, abstract, and coded fields of each LER.

The LER specific comments serve two purposes: (1) they point out what the analysts considered to be the specific deficiencies or observations concerning the information pertaining to the event, and (2) they provide a basis for a count of general deficiencies for the overall sample of LERs that was evaluated. Likewise, the scores serve two purposes: (1) they serve to illustrate in numerical terms how the analysts perceived the content of the information that was presented, and (2) they provide a basis for determining an overall score for each LER. The overall score for each LER is the result of combining the scores for the text, abstract, and coded fields (i.e.,  $0.6 \times \text{text score} + 0.3 \times \text{abstract score} + 0.1 \times \text{coded fields score} = \text{overall LER score}$ ).

The results of the LER quality evaluation are divided into two categories: (1) detailed information and (2) summary information. The detailed information, presented in Appendices A through D, consists of LER sample information (Appendix A), a table of the scores for each sample LER (Appendix B), tables of the number of deficiencies and observations for the text, abstract and coded fields (Appendix C), and comment sheets containing narrative statements concerning the contents of each LER (Appendix D). When referring to Appendix D, the reader is cautioned not to try to directly correlate the number of comments on a comment sheet with the LER scores, as the analysts have flexibility to consider the magnitude of a deficiency when assigning scores (e.g., the analysts sometimes make

comments relative to a requirement without deducting points for that requirement).

## RESULTS

A discussion of the analysts' conclusions concerning LER quality is presented below. These conclusions are based solely on the results of the evaluation of the contents of the LERs selected for review and as such represent the analysts' assessment of the unit's performance (on a scale of 0 to 10) in submitting LERs that meet the requirements of 10 CFR 50.73(b) and the guidance presented in NUREG-1022 and its supplements.

Table 1 presents the average scores for the sample of LERs evaluated for the unit. In order to place the scores provided in Table 1 in perspective, the distribution of the overall average score for all units/stations that have been evaluated using the current methodology is provided on Figure 1. Figure 1 is updated each month to reflect any changes in this distribution resulting from the inclusion of data for those units/stations that have not been previously evaluated or those that have been reevaluated. (Note: Previous scores for those units/stations that are reevaluated are replaced with the scores from the latest evaluation). Table 2 and Appendix Table B-1 provide a summary of the information that is the basis for the average scores in Table 1. For example, Palisades' average score for the text of the LERs that were evaluated is 8.9 out of a possible 10 points. From Table 2 it can be seen that the text score actually results from the review and evaluation of 17 different requirements ranging from the discussion of plant operating conditions before the event [10 CFR 50.73(b)(2)(11)(A)] to text presentation. The percentage scores in the text summary section of Table 2 provide an indication of how well each text requirement was addressed by the unit for the 15 LERs that were evaluated.

### Discussion of Specific Deficiencies and Observations

A review of the percentage scores presented in Table 2 will quickly point out where the unit is experiencing the most difficulty in preparing

TABLE 1. SUMMARY OF SCORES<sup>a</sup> FOR PALISADES

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	<u>Average</u>	<u>High</u>	<u>Low</u>
Text	8.9	9.7	7.4
Abstract	8.3	9.8	5.5
Coded Fields	8.7	9.5	6.1
Overall	8.7	9.5	7.7

a. See Appendix B for a summary of scores for each LER that was evaluated.

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Figure 1. Distribution of overall average LER scores

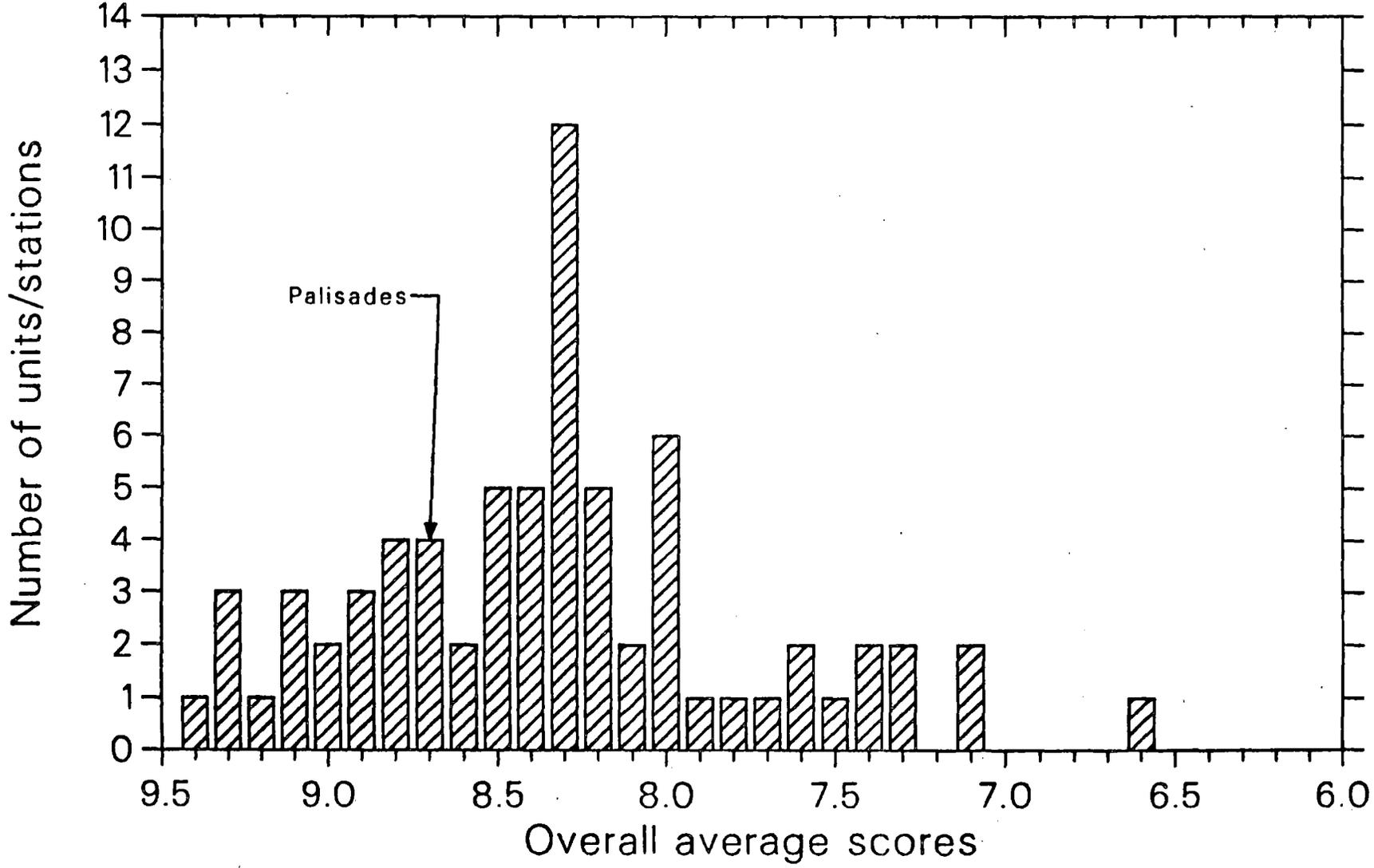


TABLE 2. LER REQUIREMENT PERCENTAGE SCORES FOR PALISADES

TEXT

Requirements [50.73(b)] - Descriptions	Percentage Scores ( ) <sup>a</sup>
(2)(ii)(A) - - Plant condition prior to event	93 (15)
(2)(ii)(B) - - Inoperable equipment that contributed	b
(2)(ii)(C) - - Date(s) and approximate time(s)	80 (15)
(2)(ii)(D) - - Root cause and intermediate cause(s)	91 (15)
(2)(ii)(E) - - Mode, mechanism, and effect	100 ( 4)
(2)(ii)(F) - - EIIS codes	93 (15)
(2)(ii)(G) - - Secondary function affected	b
(2)(ii)(H) - - Estimate of unavailability	100 ( 3)
(2)(ii)(I) - - Method of discovery	97 (15)
(2)(ii)(J)(1) - Operator actions affecting course	89 ( 3)
(2)(ii)(J)(2) - Personnel error (procedural deficiency)	90 (12)
(2)(ii)(K) - - Safety system responses	88 ( 8)
(2)(ii)(L) - - Manufacturer and model no. information	100 ( 5)
(3) - - - - - Assessment of safety consequences	82 (15)
(4) - - - - - Corrective actions	89 (15)
(5) - - - - - Previous similar event information	87 (15)
(2)(i) - - - - Text presentation	89 (15)

ABSTRACT

Requirements [50.73(b)(1)] - Descriptions	Percentage Scores ( ) <sup>a</sup>
- Major occurrences(immediate cause/effect)	99 (15)
- Plant/system/component/personnel responses	92 ( 8)
- Root cause information	72 (15)
- Corrective action information	78 (15)
- Abstract presentation	76 (15)

TABLE 2. (continued)

CODED FIELDS

Item Number(s) - Descriptions		Percentage Scores ( ) <sup>a</sup>
1, 2, and 3 -	Plant name(unit #), docket #, page #s	100 (15)
4 - - - - -	Title	56 (15)
5, 6, and 7 -	Event date, LER no., report date	96 (15)
8 - - - - -	Other facilities involved	100 (15)
9 and 10 - -	Operating mode and power level	100 (15)
11 - - - - -	Reporting requirements	95 (15)
12 - - - - -	Licensee contact information	100 (15)
13 - - - - -	Coded component failure information	95 (15)
14 and 15 - -	Supplemental report information	98 (15)

a. Percentage scores are the result of dividing the total points for a requirement by the number of points possible for that requirement. (Note: Some requirements are not applicable to all LERs; therefore, the number of points possible was adjusted accordingly.) The number in parenthesis is the number of LERs for which the requirement was considered applicable.

b. A percentage score for this requirement is meaningless as it is not possible to determine from the information available to the analyst whether this requirement is applicable to a specific LER. It is always given 100% if it is provided and is always considered "not applicable" when it is not.

LERs. For example, requirement percentage scores of less than 75 indicate that the unit probably needs additional guidance concerning these requirements. Scores of 75 or above, but less than 100, indicate that the unit probably understands the basic requirement but has either: (1) excluded certain less significant information from many of the discussions concerning that requirement or (2) totally failed to address the requirement in one or two of the selected LERs. The unit should review the LER specific comments presented in Appendix D in order to determine why it received less than a perfect score for certain requirements. The text requirements with a score of less than 75 (of which there were none for Palisades) or those with numerous deficiencies are discussed below as are the primary deficiencies in the abstract and coded fields sections.

#### Text Deficiencies and Observations

The requirement to provide an assessment of the safety consequences and implication of the event [Requirement 50.73(b)(3)] was considered to be deficient in seven of the 15 LERs even though this requirement received a percentage score of 82. Every LER is required to contain a discussion of the safety assessment that should be performed after every event. If the conclusion of this discussion is that "there were no safety consequences", sufficient details must be provided to allow the reader to determine how this conclusion was reached. For example, if it was concluded that there were no consequences because there were other systems (or means) available to mitigate the consequences of the event, these systems or means should be named in the text. In addition, each discussion should include information as to whether or not the event could have happened under a set of initial conditions that would have made the consequences more severe. If the event could not have occurred under a more severe set of conditions, the text should so state.

The corrective action discussion is considered marginal even though the percentage score for this requirement is 89. Seven of the 15 LERs failed to provide adequate information concerning what was done to fix the problem described in the report or to prevent the problem from recurring.

The requirement to provide dates and approximate times of occurrence was not adequately addressed in seven of the 15 LERs, Requirement 50.73(b)(2)(ii)(C). Most of the LERs considered to be deficient in this area failed to provide the date and/or time when systems or conditions were returned to a normal status. Others failed to provide time information concerning when it was determined that an event was reportable or a discrepancy existed.

### Abstract Deficiencies and Observations

The primary concern regarding the abstracts involve a general lack of cause and corrective action information. While there are no specific requirements for an abstracts, other than those given in 10 CFR 50.73(b)(1), an abstract should, as a minimum, summarize the following information from the text:

1. Cause/Effect           What happened that made this event reportable.
2. Responses             Major plant, system, and personnel responses as a result of the event.
3. Root/Intermediate    The underlying cause of the event. What caused the component and/or system failure or the personnel errors.
4. Corrective Actions    What was done immediately to restore the plant to a safe and stable condition and what was done or planned to prevent recurrence.

Items 3 and 4 were considered to be lacking because many of the abstracts failed to mention the cause and corrective action information that was provided in the text.

The abstract presentation score would have been higher had the abstracts been somewhat longer. Five of the abstracts were considered to be short compared to the 1400 spaces allowed for the abstract field. In

addition, one abstract contained information that was not included in the text. This concern is in reality a text concern because the additional information provided in the abstract generally adds to the readers perception of the event. If, when reviewing a final report, it is noted that the abstract includes relevant information that is not presented in the text, the text should be revised to include this information.

#### Coded Field Deficiencies and Observations

The main deficiency in the area of coded fields involves the titles, Item (4). Thirteen of the titles failed to include adequate cause information, three failed to adequately indicate the result (i.e., why the event was required to be reported), and seven failed to include the link between the cause and the result. While the result is considered the most important part of the title, the lack of cause information (and link, if necessary) results in an incomplete title. Example titles are provided in Appendix D (Coded Fields Section), for many of the titles that are considered to be deficient.

Information concerning other deficiencies involving the Coded Fields can be found by reviewing the information in Table C-3 in Appendix C and the Coded Fields Section of the Appendix D comments.

Table 3 provides a summary of the areas that most need improvement for the Palisades LERs. For addition and more specific information concerning deficiencies, the reader should refer to the information presented in Appendices C and D. General guidance concerning these requirements can be found in NUREG-1022, and NUREG-1022 Supplements No. 1 and 2.

As was previously noted, this is the second time that the Palisades LERs have been evaluated using this same methodology. The previous evaluation was reported in November of 1985. Table 4 provides a comparison of the scores for both evaluations. As can be seen, the Palisades LERs have improved somewhat since the previous evaluation; however, the overall score is lower than it should be because of the low abstract score. For

**TABLE 3. AREAS MOST NEEDING IMPROVEMENT FOR PALISADES LERs**

<b>Areas</b>	<b>Comments</b>
<b>Safety assessment information</b>	All LERs should include a detailed safety assessment. The text should discuss whether or not the event might have been worse had it occurred under different but probable circumstances and provide information concerning any systems that were available to limit the consequences of the event.
<b>Corrective action information</b>	Detailed corrective action information must be included in the text of every LER. The corrective action discussion should include those actions planned or taken to reduce the probability of similar events occurring in the future.
<b>Date/time information</b>	Date and/or time information such as when systems or components are returned to a normal status or when problems are discovered should be provided. The reader should be able to visualize the time history of the event from the date/time information that is provided.
<b>Abstracts</b>	
a. Cause and corrective action information	Abstracts should mention the cause and corrective information that is provided in the text.
b. Overall length	The space available (i.e., the 1400 spaces) should be better utilized.
c. Additional information	Whenever an abstract contains information that is not in the text, the text should be revised such that this additional information is discussed.
<b>Coded fields</b>	
a. Titles	Titles should be written such that they better describe the event. In particular, try to include the root cause, result, and the link between them in each title.

TABLE 4. COMPARISON OF LER SCORES FROM PREVIOUS EVALUATION

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<u>Report Date</u>	<u>November-85</u>	<u>May-87</u>
Text average	8.4	8.9
Abstract average	8.3	8.3
Coded fields average	8.5	8.7
Overall average	8.4	8.7

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example, the current industry average score for the text, abstract, and coded fields is 8.2, 8.4, and 8.7, respectively, for an overall average of 8.3. Palisades scores are above average for the text, and overall average, but slightly below average for the abstract. (Note: The industry overall average is the result of averaging the latest overall average score for each unit/station that has been evaluated using this methodology.)

## REFERENCES

1. Office for Analysis and Evaluation of Operational Data, Licensee Event Report System, NUREG-1022 Supplement No. 2, U.S. Nuclear Regulatory Commission, September 1985.
2. Office for Analysis and Evaluation of Operational Data, Licensee Event Report System, NUREG-1022, U.S. Nuclear Regulatory Commission, September 1983.
3. Office for Analysis and Evaluation of Operational Data, Licensee Event Report System, NUREG-1022 Supplement No. 1, U.S. Nuclear Regulatory Commission, February 1984.

APPENDIX A  
LER SAMPLE SELECTION  
INFORMATION  
FOR PALISADES

TABLE A-1. LER SAMPLE SELECTION FOR PALISADES

Sample Number	LER Number	Comments
1	86-006-00	ESF
2	86-008-00	SCRAM, ESF
3	86-009-00	SCRAM
4	86-012-00	SCRAM
5	86-015-01	SCRAM
6	86-017-00	
7	86-018-00	SCRAM
8	86-020-01	ESF
9	86-022-00	
10	86-028-00	ESF
11	86-030-00	ESF
12	86-035-00	
13	86-040-01	
14	87-002-00	SCRAM
15	87-003-00	

APPENDIX B  
EVALUATION SCORES OF  
INDIVIDUAL LERS FOR PALISADES

TABLE B-1. EVALUATION SCORES OF INDIVIDUAL LERS FOR PALISADES

	LER Sample Number <sup>a</sup>							
	1	2	3	4	5	6	7	8
Text	9.5	8.9	8.8	8.8	8.5	9.5	8.6	8.2
Abstract	9.8	8.6	9.7	8.8	5.7	9.5	8.7	8.5
Coded Fields	8.5	9.3	9.0	9.2	9.0	8.5	8.7	8.5
Overall	9.5	8.9	9.1	8.9	7.7	9.4	8.6	8.3

	LER Sample Number <sup>a</sup>							
	9	10	11	12	13	14	15	Average
Text	9.3	7.4	9.3	9.3	9.7	9.2	8.0	8.9
Abstract	7.1	9.4	6.5	9.6	9.2	5.5	7.5	8.3
Coded Fields	9.5	9.0	8.5	9.2	9.2	8.5	6.1	8.7
Overall	8.7	8.1	8.4	9.4	9.5	8.0	7.7	8.7

a. See Appendix A for a list of the corresponding LER numbers.

APPENDIX C  
DEFICIENCY AND OBSERVATION  
COUNTS FOR PALISADES

TABLE C-1. TEXT DEFICIENCIES AND OBSERVATIONS FOR PALISADES

Description of Deficiencies and Observations	Number of LERs with Deficiencies and Observations	
	Sub-paragraph Totals <sup>a</sup>	Paragraph Totals ( ) <sup>b</sup>
<u>50.73(b)(2)(ii)(A)</u> --Plant operating conditions before the event were not included or were inadequate.		0 (15)
<u>50.73(b)(2)(ii)(B)</u> --Discussion of the status of the structures, components, or systems that were inoperable at the start of the event and that contributed to the event was not included or was inadequate.		0 ( 1)
<u>50.73(b)(2)(ii)(C)</u> --Failure to include sufficient date and/or time information.		7 (15)
a. Date information was insufficient.	5	
b. Time information was insufficient.	5	
<u>50.73(b)(2)(ii)(D)</u> --The root cause and/or intermediate failure, system failure, or personnel error was not included or was inadequate.		3 (15)
a. Cause of component failure was not included or was inadequate	2	
b. Cause of system failure was not included or was inadequate	1	
c. Cause of personnel error was not included or was inadequate.		
<u>50.73(b)(2)(ii)(E)</u> --The failure mode, mechanism (immediate cause), and/or effect (consequence) for each failed component was not included or was inadequate.		0 ( 4)
a. Failure mode was not included or was inadequate		
b. Mechanism (immediate cause) was not included or was inadequate		
c. Effect (consequence) was not included or was inadequate.		

TABLE C-1. (continued)

Description of Deficiencies and Observations	Number of LERs with Deficiencies and Observations	
	Sub-paragraph Totals <sup>a</sup>	Paragraph Totals ( ) <sup>b</sup>
<u>50.73(b)(2)(11)(F)</u> --The Energy Industry Identification System component function identifier for each component or system was not included.		2 (15)
<u>50.73(b)(2)(11)(G)</u> --For a failure of a component with multiple functions, a list of systems or secondary functions which were also affected was not included or was inadequate.		0 ( 1)
<u>50.73(b)(2)(11)(H)</u> --For a failure that rendered a train of a safety system inoperable, the estimate of elapsed time from the discovery of the failure until the train was returned to service was not included.		0 ( 3)
<u>50.73(b)(2)(11)(I)</u> --The method of discovery of each component failure, system failure, personnel error, or procedural error was not included or was inadequate.		1 (15)
a. Method of discovery for each component failure was not included or was inadequate	0	
b. Method of discovery for each system failure was not included or was inadequate	1	
c. Method of discovery for each personnel error was not included or was inadequate	0	
d. Method of discovery for each procedural error was not included or was inadequate.	0	

TABLE C-1. (continued)

<u>Description of Deficiencies and Observations</u>	<u>Number of LERs with Deficiencies and Observations</u>	
	<u>Sub-paragraph Totals<sup>a</sup></u>	<u>Paragraph Totals ( )<sup>b</sup></u>
<u>50.73(b)(2)(ii)(j)(1)</u> --Operator actions that affected the course of the event including operator errors and/or procedural deficiencies were not included or were inadequate.		1 ( 3)
<u>50.73(b)(2)(ii)(j)(2)</u> --The discussion of each personnel error was not included or was inadequate.		4 (12)
a. OBSERVATION: A personnel error was implied by the text, but was not explicitly stated.	1	
b. <u>50.73(b)(2)(ii)(j)(2)(i)</u> --Discussion as to whether the personnel error was cognitive or procedural was not included or was inadequate.	2	
c. <u>50.73(b)(2)(ii)(j)(2)(ii)</u> --Discussion as to whether the personnel error was contrary to an approved procedure, was a direct result of an error in an approved procedure, or was associated with an activity or task that was not covered by an approved procedure was not included or was inadequate.	0	
d. <u>50.73(b)(2)(ii)(j)(2)(iii)</u> --Discussion of any unusual characteristics of the work location (e.g., heat, noise) that directly contributed to the personnel error was not included or was inadequate.	0	
e. <u>50.73(b)(2)(ii)(j)(2)(iv)</u> --Discussion of the type of personnel involved (i.e., contractor personnel, utility licensed operator, utility nonlicensed operator, other utility personnel) was not included or was inadequate.	2	

TABLE C-1. (continued)

Description of Deficiencies and Observations	Number of LERs with Deficiencies and Observations	
	Sub-paragraph Totals <sup>a</sup>	Paragraph Totals ( ) <sup>b</sup>
<u>50.73(b)(2)(ii)(K)</u> --Automatic and/or manual safety system responses were not included or were inadequate.		3 ( 8)
<u>50.73(b)(2)(ii)(L)</u> --The manufacturer and/or model number of each failed component was not included or was inadequate.		0 ( 4)
<u>50.73(b)(3)</u> --An assessment of the safety consequences and implications of the event was not included or was inadequate.		7 (15)
a. OBSERVATION: The availability of other systems or components capable of mitigating the consequences of the event was not discussed. If no other systems or components were available, the text should state that none existed.	0	
b. OBSERVATION: The consequences of the event had it occurred under more severe conditions were not discussed. If the event occurred under what were considered the most severe conditions, the text should so state.	2	
<u>50.73(b)(4)</u> --A discussion of any corrective actions planned as a result of the event including those to reduce the probability of similar events occurring in the future was not included or was inadequate.		7 (15)

TABLE C-1. (continued)

Description of Deficiencies and Observations	Number of LERs with Deficiencies and Observations	
	Sub-paragraph Totals <sup>a</sup>	Paragraph Totals ( ) <sup>b</sup>
a. A discussion of actions required to correct the problem (e.g., return the component or system to an operational condition or correct the personnel error) was not included or was inadequate.	1	
b. A discussion of actions required to reduce the probability of recurrence of the problem or similar event (correct the root cause) was not included or was inadequate.	4	
c. OBSERVATION: A discussion of actions required to prevent similar failures in similar and/or other systems (e.g., correct the faulty part in all components with the same manufacturer and model number) was not included or was inadequate.	0	
<u>50.73(b)(5)</u> --Information concerning previous similar events was not included or was inadequate.		2 (15)

TABLE C-1. (continued)

Description of Deficiencies and Observations	Number of LERs with Deficiencies and Observations	
	Sub-paragraph Totals <sup>a</sup>	Paragraph Totals ( ) <sup>b</sup>
50.73(b)(2)(1)--Text presentation inadequacies.		2 (15)
a. OBSERVATION: A diagram would have aided in understanding the text discussion.	0	
b. Text contained undefined acronyms and/or plant specific designators.	0	
c. The text contains other specific deficiencies relating to the readability.	2	

a. The "sub-paragraph total" is a tabulation of specific deficiencies or observations within certain requirements. Since an LER can have more than one deficiency for certain requirements, (e.g., an LER can be deficient in the area of both date and time information), the sub-paragraph totals do not necessarily add up to the paragraph total.

b. The "paragraph total" is the number of LERs that have one or more requirement deficiencies or observations. The number in parenthesis is the number of LERs for which the requirement was considered applicable.

TABLE C-2. ABSTRACT DEFICIENCIES AND OBSERVATIONS FOR PALISADES

Description of Deficiencies and Observations	Number of LERs with Deficiencies and Observations	
	Sub-paragraph Totals <sup>a</sup>	Paragraph Totals ( ) <sup>b</sup>
A summary of occurrences (immediate cause and effect) was not included or was inadequate		1 (15)
A summary of plant, system, and/or personnel responses was not included or was inadequate.		2 ( 8)
a. Summary of plant responses was not included or was inadequate.	0	
b. Summary of system responses was not included or was inadequate.	2	
c. Summary of personnel responses was not included or was inadequate.	0	
A summary of the root cause of the event was not included or was inadequate.		9 (15)
A summary of the corrective actions taken or planned as a result of the event was not included or was inadequate.		6 (15)

TABLE C-2. (continued)

<u>Description of Deficiencies and Observations</u>	<u>Number of LERs with Deficiencies and Observations</u>	
	<u>Sub-paragraph Totals<sup>a</sup></u>	<u>Paragraph Totals ( )<sup>b</sup></u>
Abstract presentation inadequacies		7 (15)
a. OBSERVATION: The abstract contains information not included in the text. The abstract is intended to be a summary of the text, therefore, the text should discuss all information summarized in the abstract.	1	
b. The abstract was greater than 1400 characters	1	
c. The abstract contains undefined acronyms and/or plant specific designators.		
d. The abstract contains other specific deficiencies (i.e., poor summarization, contradictions, etc.)	5	

a. The "sub-paragraph total" is a tabulation of specific deficiencies or observations within certain requirements. Since an LER can have more than one deficiency for certain requirements, the sub-paragraph totals do not necessarily add up to the paragraph total.

b. The "paragraph total" is the number of LERs that have one or more deficiency or observation. The number in parenthesis is the number of LERs for which a certain requirement was considered applicable.

TABLE C-3. CODED FIELDS DEFICIENCIES AND OBSERVATIONS FOR PALISADES

Description of Deficiencies and Observations	Number of LERs with Deficiencies and Observations	
	Sub-paragraph Totals <sup>a</sup>	Paragraph Totals ( ) <sup>b</sup>
Facility Name		0 (15)
a. Unit number was not included or incorrect.		
b. Name was not included or was incorrect.		
c. Additional unit numbers were included but not required.		
Docket Number was not included or was incorrect.		0 (15)
Page Number was not included or was incorrect.		0 (15)
Title was left blank or was inadequate		15 (15)
a. Root cause was not given in title	13	
b. Result (effect) was not given in title	3	
c. Link was not given in title	7	
Event Date		1 (15)
a. Date not included or was incorrect.	1	
b. Discovery date given instead of event date.	0	
LER Number was not included or was incorrect		0 (15)
Report Date		1 (15)
a. Date not included	0	
b. OBSERVATION: Report date was not within thirty days of event date (or discovery date if appropriate).	1	
Other Facilities information in field is inconsistent with text and/or abstract.		0 (15)
Operating Mode was not included or was inconsistent with text or abstract.		0 (15)

TABLE C-3. (continued)

<u>Description of Deficiencies and Observations</u>	<u>Number of LERs with Deficiencies and Observations</u>	
	<u>Sub-paragraph Totals<sup>a</sup></u>	<u>Paragraph Totals ( )<sup>b</sup></u>
Power level was not included or was inconsistent with text or abstract		0 (15)
Reporting Requirements		1 (15)
a. The reason for checking the "OTHER" requirement was not specified in the abstract and/or text.	0	
b. OBSERVATION: It may have been more appropriate to report the event under a different paragraph.	1	
c. OBSERVATION: It may have been appropriate to report this event under an additional unchecked paragraph.	0	
Licensee Contact		0 (15)
a. Field left blank		
b. Position title was not included		
c. Name was not included		
d. Phone number was not included.		
Coded Component Failure Information		2 (15)
a. One or more component failure sub-fields were left blank.	0	
b. Cause, system, and/or component code is inconsistent with text.	1	
c. Component failure field contains data when no component failure occurred.	1	
d. Component failure occurred but entire field left blank.	0	

TABLE C-3. (continued)

Description of Deficiencies and Observations	Number of LERs with Deficiencies and Observations	
	Sub-paragraph Totals <sup>a</sup>	Paragraph Totals ( ) <sup>b</sup>
Supplemental Report		1 (15)
a. Neither "Yes"/"No" block of the supplemental report field was checked.	0	
b. The block checked was inconsistent with the text.	1	
Expected submission date information is inconsistent with the block checked in Item (14).		0 (15)

a. The "sub-paragraph total" is a tabulation of specific deficiencies or observations within certain requirements. Since an LER can have more than one deficiency for certain requirements, the sub-paragraph totals do not necessarily add up to the paragraph total.

b. The "paragraph total" is the number of LERs that have one or more requirement deficiencies or observations. The number in parenthesis is the number of LERs for which a certain requirement was considered applicable.

APPENDIX D  
LER COMMENTS SHEETS FOR  
PALISADES

TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
1. LER Number: 86-006-00	
Scores: Text = 9.5    Abstract = 9.8    Coded Fields = 8.5    Overall = 9.5	
Text	1. <u>50.73(b)(3)</u> --Discussion of the assessment of the safety consequences and implications of the event is inadequate.  OBSERVATION: The consequences of the event had it occurred under more severe conditions should be discussed. If the event occurred under what are considered the most severe conditions, the text should so state.
Abstract	1. No comments.
Coded Fields	1. <u>Item (4)</u> --Title: Root cause (personnel error) and link (manual transfer) are not included.

TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
2. LER Number: 86-008-00	
Scores: Text = 8.9    Abstract = 8.6    Coded Fields = 9.3    Overall = 8.9	
Text	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(2)(11)(C)</u>--Additional times for various occurrences (such as when power to Y30 was restored) would be helpful.</li> <li>2. <u>50.73(b)(2)(11)(F)</u>--The Energy Industry Identification System code for each component and/or system referred to in the text is not included.</li> <li>3. <u>50.73(b)(4)</u>--Would adding a warning on the panel and/or in the procedure be appropriate to help prevent recurrence, especially by other technicians?</li> </ol>
Abstract	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(1)</u>--Summary of root cause is inadequate. Details concerning the use of the screw driver and the "physical slip" were not mentioned.</li> </ol>
Coded Fields	<ol style="list-style-type: none"> <li>1. <u>Item (4)</u>--Title: Root cause is not included. A more appropriate title might be "Inadvertent Reactor Trip and Containment Isolation Signal during Testing due to a Personnel Error".</li> </ol>

TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
3. LER Number: 86-009-00	
Scores: Text = 8.8    Abstract = 9.7    Coded Fields = 9.0    Overall = 9.1	
Text	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(2)(11)(C)</u>--Date information for major occurrences is inadequate. On what date was it recognized that this event was reportable?</li> <li>2. <u>50.73(b)(2)(11)(J)(2)</u>--Discussion of the personnel error is inadequate. Why was this event not recognized as being reportable? Who (by title) was responsible for not recognizing that this event was reportable?</li> <li>3. <u>50.73(b)(4)</u>--What was done or planned to ensure that events in the future will be reported as required?</li> <li>4. <u>50.73(b)(5)</u>--Information concerning previous similar events is not included. If no previous similar events are known, the text should so state.</li> </ol>
Abstract	<ol style="list-style-type: none"> <li>1. It would be better to say "hourly inspection" instead of "compensatory measures" (see second paragraph).</li> </ol>
Coded Fields	<ol style="list-style-type: none"> <li>1. <u>Item (4)</u>--Title: Result (Technical Specification Violation) is not included.</li> </ol>

TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
4. LER Number: 86-012-00	
Scores: Text = 8.8    Abstract = 8.8    Coded Fields = 9.2    Overall = 8.9	
Text	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(2)(11)(F)</u>--The EIIS component codes for the diesel generator and boiler were not included.</li> <li>2. <u>50.73(b)(3)</u>--Discussion of the assessment of the safety consequences and implications of the event is inadequate. The safety assessment does not adequately demonstrate how one diesel generator could run for 7 days. Under the <u>Description of Event</u> section, the date/time information indicates that 160 gallons of fuel oil were used between 2325 on 2/20/86 and 0040 on 2/21/86, presumably for the heating boilers. The question arises as to how much fuel oil is needed for minimum heating of the plant, and how long the diesel could run with the minimum heating load?</li> <li>3. <u>50.73(b)(4)</u>--It appears that it would be appropriate to contact the suppliers and inform them of the road maintenance service available at the plant.</li> </ol>
Abstract	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(1)</u>--Summary of corrective actions taken or planned as a result of the event is inadequate. The corrective action involving security personnel would be more clear if the abstract indicated that the driver contacted them before leaving.</li> <li>2. <u>OBSERVATION:</u> The abstract contains information not included in the text. The abstract is intended to be a summary of the text; therefore, the text should discuss all information summarized in the abstract. The last sentence of the abstract is not discussed in the text (see text comment 3).</li> </ol>
Coded Fields	<ol style="list-style-type: none"> <li>1. <u>Item (4)</u>--Title: Root cause (weather related road conditions) is not included.</li> </ol>

TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
5. LER Number: 86-015-01	
Scores: Text = 8.5    Abstract = 5.7    Coded Fields = 9.0    Overall = 7.7	
Text	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(2)(11)(D)</u>--The root and/or intermediate cause discussion concerning failure to balance the auto and manual portions of the voltage regulator circuitry is inadequate. Is there a meter for both portions of the voltage regulator circuitry? SOP 8 says the D-C milliammeter should read zero prior to going from "TEST" to "AUTO" and the first paragraph under "Cause of Event" says ". . . as evidenced by a zero reading"; this implies everything was all right (if the SOP had been followed correctly during the last time the test was conducted). Was the problem the fact that the manual portion of the circuitry was left at 2 milliamps after the last test?</li> <li>2. <u>50.73(b)(2)(11)(J)(1)</u>--Who (by personnel type and/or title) made the decision to permit continued plant operation?</li> <li>3. <u>50.73(b)(2)(11)(J)(2)</u>--It appears that procedural deficiency as well as personnel error should be listed as the root cause of the occurrence.</li> <li>4. <u>50.73(b)(2)(11)(K)</u>--Discussion of automatic and/or manual safety system responses is inadequate. All safety systems that "functioned normally in response to the occurrence" should be named.</li> <li>5. <u>50.73(b)(3)</u>--Discussion of the assessment of the safety consequences and implications of the event is inadequate. What is required frequency of the main generator voltage regulator test that initiated the event? Are there any safety implications from going back to power operation prior to discovering the cause of the problem and completing the test?</li> <li>6. The use of "revision bars" in the margin of supplemental reports is a good practice.</li> <li>7. Some ideas are not presented clearly (hard to follow). The text appears to contradict itself. See text comment number 1.</li> </ol>

TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
5. LER Number: 86-015-01 (Continued)	
Abstract	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(1)</u>--Summary of cause information is inadequate. Some details concerning the "imbalance" and the fact that the root cause was attributed to personnel error (procedural deficiency) should have been provided in the abstract.</li> <li>2. <u>50.73(b)(1)</u>--Summary of corrective actions taken or planned as a result of the event is not included.</li> <li>3. Abstract does not adequately summarize the text. Additional space is available within the abstract field to provide the necessary information but it was not utilized.</li> </ol>
Coded Fields	<ol style="list-style-type: none"> <li>1. <u>Item (4)</u>--Title: Cause is not provided and the link is inadequate. A better title might be "Personnel Error Involving Failure to Balance Voltages In The Main Generator Voltage Regulator Circuits Prior To Switching To "TEST" Results In A Loss of Load and Reactor Trip".</li> </ol>

TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
6. LER Number: 86-017-00	
Scores: Text = 9.5    Abstract = 9.5    Coded Fields = 8.5    Overall = 9.4	
Text	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(2)(11)(D)</u>--OBSERVATION: The score for this requirement is based on the assumption that the supplemental report will contain all the necessary information.</li> <li>2. <u>50.73(b)(3)</u>--Is the level of the containment floor pit monitored? Did the operators have to take any radiological precautions while searching for the unidentified leakage?</li> <li>3. <u>50.73(b)(4)</u>--OBSERVATION: The score for this requirement is based on the assumption that the supplemental report will contain all the necessary information.</li> <li>4. The text appears to contradict itself. If a level increase in the quench tank is readily detectable (first paragraph on page 6), how did the open vent path mask leakage from RV-2006 into the quench tank (last sentence, second paragraph on page 6). Is the vent valve outlet below the level of an alarm point?</li> </ol>
Abstract	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(1)</u>--The open vent valve should have been mentioned in the abstract.</li> </ol>
Coded Fields	<ol style="list-style-type: none"> <li>1. <u>Item (4)</u>--Title: Result and cause information is not included. A better title might be, "Unidentified Primary Coolant System Leakage Due To Failure of Relief Valves To Reseat - Reactor Shutdown As Required By Technical Specification".</li> </ol>

TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
7. LER Number: 86-018-00	
Scores: Text = 8.6    Abstract = 8.7    Coded Fields = 8.7    Overall = 8.6	
Text	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(2)(11)(D)</u>--The root and/or intermediate cause discussion concerning the component failures is inadequate. No cause is discussed for the control rod drive seal failure. In other cases the discussions did not go far enough. For example, the discussion on the atmosphere steam dump valve does not indicate why the diaphragm was degraded. It is also helpful, when the cause cannot be determined, to discuss the possible causes that were examined. An adequate root cause discussion is necessary to help understand the corrective actions taken. This is especially true if the only action taken is to replace the part, since justification is needed to show that the new part will not fail because the source of the failure has not been corrected. For example, was there an unusual condition present which caused the lube oil pump to fail?</li> <li>2. <u>50.73(b)(2)(11)(J)(2)</u>--As discussion as to why the turbine bypass valve was not properly tested was not included, nor was the type of personnel involved.</li> <li>3. <u>50.73(b)(4)</u>--It is not clear if many of the corrective actions are adequate to prevent recurrence (see text number comment 1).</li> </ol>
Abstract	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(1)</u>--Summary of root cause is inadequate. The fact that the EHC power supplies were not known to be sensitive to line noise prior to this event was not stated in the abstract.</li> <li>2. Additional space is available within the abstract field to provide the necessary information but it was not utilized.</li> </ol>
Coded Fields	<ol style="list-style-type: none"> <li>1. <u>Item (4)</u>--Title: Root cause and link (loss of electro-hydraulic control of turbine during maintenance activity) are not included. A more appropriate title might "High Pressure Reactor Trip due to Loss of Electro-Hydraulic Control of Turbine--EHC Power Supply Sensitive To Line Noise".</li> </ol>

TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
7. LER Number: 86-018-00 (Continued)	
	2. <u>Item (13)</u> --These fields should be filled in only for actual component failure; the EHC power supply and pressurizer spray valve did not need to be included in this field.
	3. <u>Item (14)</u> --A supplemental report would be appropriate to describe the results of the Task Force investigation if these results significantly change the reader's perception of the event and/or require additional corrective actions be taken.

TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
8. LER Number: 86-020-01	
Scores: Text = 8.2    Abstract = 8.5    Coded Fields = 8.5    Overall = 8.3	
Text	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(2)(11)(C)</u>--The time of the return of the diesel generators to standby status and the date and time of the removal of the orifice from the lube oil system are not included.</li> <li>2. <u>50.73(b)(2)(11)(J)(2)</u>--Discussion of the personnel error/procedural deficiency is inadequate. Why was the lube oil orifice removed, and why was the system not labelled as being in an atypical condition?</li> <li>3. <u>50.73(b)(3)</u>--Discussion of the assessment of the safety consequences and implications of the event is inadequate. OBSERVATION: The consequences of the event had it occurred under more severe conditions were not discussed. If the event occurred under what are considered the most severe conditions, it would be helpful to state so in the text. Discussion of the significance of this event had it occurred at power operation or whether or not the lube oil system is ever flushed when the plant is at power operation is not included.</li> <li>4. <u>50.73(b)(4)</u>--Discussion of corrective actions taken or planned is inadequate. The text does not discuss what corrective actions (if any) are necessary when the plant is at power.</li> </ol>
Abstract	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(1)</u>--The fact that personnel error was the root cause is not included in the abstract.</li> </ol>
Coded Fields	<ol style="list-style-type: none"> <li>1. <u>Item (4)</u>--Title: Root cause and link are not included. A better title might be: "Personnel Error During Turbine Lube Oil System Flushing Causes Inadvertent Emergency Generator Actuation".</li> </ol>

TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
9. LER Number: 86-022-00	
Scores: Text = 9.3    Abstract = 7.1    Coded Fields = 9.5    Overall = 8.7	
Text	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(2)(11)(D)</u>--The next to last sentence of paragraph 3 on page 2 indicates that the calculated overstress conditions was present even using the "stated (lighter) values for the valve/operator weight". Why wasn't this condition identified during an earlier plant seismic calculation review?</li> <li>2. <u>50.73(b)(4)</u>--Discussion of corrective actions taken or planned is inadequate. What was done or planned to ensure that possible future SEP Topic (or similar) evaluations will be addressed properly (e.g., by selecting an adequate sample)?</li> </ol>
Abstract	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(1)</u>--Summary of cause information is not included.</li> <li>2. Abstract does not adequately summarize the text. Additional space is available within the abstract field to provide the necessary information but it was not utilized.</li> </ol>
Coded Fields	<ol style="list-style-type: none"> <li>1. <u>Item (4)</u>--Title: Result (system stress outside design basis is not included).</li> </ol>

TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
10. LER Number: 86-028-00	
Scores: Text = 7.4    Abstract = 9.4    Coded Fields = 9.0    Overall = 8.1	
Text	<ol style="list-style-type: none"> <li>1. Submittal of an LER without a text is acceptable; however, the abstract must then meet all the requirements of a text and still be less than 1400 spaces. The following comments apply to the abstract that was evaluated as if it were a text.</li> <li>2. <u>50.73(b)(2)(ii)(C)</u>--Additional times such as when power was restored to the buses would be helpful.</li> <li>3. <u>50.73(b)(2)(ii)(D)</u>--An explanation as to why the breaker to Bus 1-D would not automatically close would be helpful.</li> <li>4. <u>50.73(b)(3)</u>--Discussion of the assessment of the safety consequences and implications of the event is inadequate. It is not sufficient to simply state that there were no safety consequences; justification for the statement should be provided.</li> <li>5. <u>50.73(b)(4)</u>--It is not clear how close the lightning strike was to the plant, but if it was in the plant area would a lightning rod system help prevent recurrence?</li> <li>6. <u>50.73(b)(5)</u>--Information concerning previous similar events is not included. If no previous similar events are known, the text should so state.</li> </ol>
Abstract	<ol style="list-style-type: none"> <li>1. No comment.</li> </ol>
Coded Fields	<ol style="list-style-type: none"> <li>1. <u>Item (4)</u>--Title: Root cause (lightening strike opens fuses of supply transformer) is not included.</li> </ol>

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TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
11. LER Number: 86-030-00	
Scores: Text = 9.3    Abstract = 6.5    Coded Fields = 8.5    Overall = 8.4	
Text	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(2)(11)(C)</u>--Date/time information for the safety injection system return to normal status is not included.</li> <li>2. <u>50.73(b)(2)(11)(K)</u>--Discussion of automatic and/or manual safety system responses is inadequate. Did an actual injection occur?</li> </ol>
Abstract	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(1)</u>--Summary of the safety injection signal response is inadequate. See text comment number 2.</li> <li>2. <u>50.73(b)(1)</u>--Summary of the personnel and procedural error that caused the inadvertent injection signal is not included.</li> <li>3. <u>50.73(b)(1)</u>--Summary of corrective actions taken or planned as a result of the event is not included for the procedure changes.</li> <li>4. Additional space is available within the abstract field to provide the necessary information but it was not utilized.</li> </ol>
Coded Fields	<ol style="list-style-type: none"> <li>1. <u>Item (4)</u>--Title: Root cause (personnel and procedural error) and link (during testing of a plant modification) are not included.</li> </ol>

TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
12. LER Number: 86-035-00	
Scores: Text = 9.3    Abstract = 9.6    Coded Fields = 9.2    Overall = 9.4	
Text	<ol style="list-style-type: none"> <li>1. Submittal of an LER without a text is acceptable; however, the abstract must then meet all the requirements of a text and still be less than 1400 spaces. The following comments apply to the abstract that was evaluated as if it were a text.</li> <li>2. <u>50.73(b)(2)(ii)(L)</u>--Although the valves did not fail, identification might be helpful for others to help them determine if they might have the same problem.</li> </ol>
Abstract	<ol style="list-style-type: none"> <li>1. The abstract contains greater than 1400 spaces.</li> </ol>
Coded Fields	<ol style="list-style-type: none"> <li>1. <u>Item (4)</u>--Title: Root cause is not included.</li> </ol>

TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
13. LER Number: 86-040-01	
Scores: Text = 9.7    Abstract = 9.2    Coded Fields = 9.2    Overall = 9.5	
Text	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(2)(11)(D)</u>--OBSERVATION: The score for this requirement is based on the assumption that the supplemental report will contain all the necessary information.</li> <li>2. <u>50.73(b)(4)</u>--It would be desirable to indicate that the seal housings will be replaced instead of the reader having to assume this.</li> </ol>
Abstract	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(1)</u>--Summary of root cause is inadequate. The continuing investigation into the root cause should be mentioned.</li> </ol>
Coded Fields	<ol style="list-style-type: none"> <li>1. <u>Item (4)</u>--Title: Root cause (corrosion due to contamination during manufacturing) is not included.</li> </ol>

TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
14. LER Number: 87-002-00	
Scores: Text = 9.2    Abstract = 5.5    Coded Fields = 8.5    Overall = 8.0	
Text	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(2)(11)(C)</u>--Date/time information for the replacement of the detection element is not included.</li> <li>2. <u>50.73(b)(2)(11)(K)</u>--Discussion of automatic and/or manual safety system responses is inadequate. A statement of the equipment which actuated as a result of the RPS actuation is not included..</li> <li>3. <u>50.73(b)(4)</u>--A supplemental report would be appropriate to describe the results of the engineering evaluations of the detection element well cover and the evaluation of the feasibility of utilizing heat shrink tubing over detection element connections if these results significantly change the reader's perception of the event and/or require additional corrective actions be taken.</li> </ol>
Abstract	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(1)</u>--Summary of the equipment responses to the RPS actuation is not included.</li> <li>2. <u>50.73(b)(1)</u>--Summary of the root cause information (boric acid exposure) is not included.</li> <li>3. <u>50.73(b)(1)</u>--Summary of corrective actions taken or planned as a result of the event is not included.</li> <li>4. Additional space is available within the abstract field to provide the necessary information but it was not utilized.</li> </ol>
Coded Fields	<ol style="list-style-type: none"> <li>1. <u>Item (4)</u>--Title: Root cause (boric acid exposure on detection element) and links (during process of zeroing control rod drive packages) are not included.</li> <li>2. <u>Item (14)</u>--See text comment number 3.</li> </ol>

TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
15. LER Number: 87-003-00	
Scores: Text = 8.0    Abstract = 7.5    Coded Fields = 6.1    Overall = 7.7	
Text	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(2)(i)(C)</u>--Date information is inadequate. The date of the "extensive walkdown" to assure no other significant deviations were present should have been provided. Under "ANALYSIS OF THE EVENT" a date should have been provided for the determination that a discrepancy existed. More dates would make the time history of this event easier to follow.</li> <li>2. <u>50.73(b)(2)(i)(I)</u>--What prompted the walkdowns during which the lack of T-drains was initially noted?</li> <li>3. <u>50.73(b)(3)</u>--Discussion of the assessment of the safety consequences and implications of the event is inadequate. The safety systems in which the subject valves reside should be named in the text. What is the potential safety problem with a valve operator that doesn't have a T-drain? Does the list of seven valves include the "other potentially affected VOPs" that were inspected after it was determined that a discrepancy existed? The details concerning the investigation of "justification of past operability" should be provided. It appears that a lack of "justification" is what prompted this report.</li> </ol>
Abstract	<ol style="list-style-type: none"> <li>1. <u>50.73(b)(1)</u>--Summary of cause information is inadequate. The abstract should state the reason (i.e., no strict administrative procedures in the past) that non T-drain operators were installed and not discovered.</li> <li>2. <u>50.73(b)(1)</u>--Summary of corrective actions taken or planned as a result of the event is inadequate. The addition walkdown to discover other valves and the drawing that was developed should have been mentioned. Additional space is available within the abstract field to provide the necessary information but it was not utilized.</li> </ol>
Coded Fields	<ol style="list-style-type: none"> <li>1. <u>Item (4)</u>--Title: Cause and link are not provided. A better title would be "Lack of Strict Administrative Procedures Results In Motor Operators Being Installed Without T-Drains--Environment Qualification Issue".</li> </ol>

TABLE D-1. SPECIFIC LER COMMENTS FOR PALISADES (255)

Section	Comments
15. LER Number: 87-003-00 (Continued)	
2.	<u>Item (5)</u> --It is not apparent why 1/19/87 is provided as the event date; was this the date that it was determined that a discrepancy existed?
3.	<u>Item (7)</u> --It is not apparent why a report was not submitted within 30 days of the discovery that safety valves were installed in the plant without T-drains.
4.	<u>Item (11)</u> --No requirement is checked. It is conservative to submit a report that states the problem and says "justification for past operability is being investigated" and will be provided in a supplemental report.
5.	<u>Item (13)</u> --Cause, system, and/or component code appears inconsistent with information provided in the text. The cause code "E" would appear to be more appropriate for this event. Two system codes appear to be necessary and the manufacturer code should be L200 (apparent typographical error).