### APR - 3 1986

Docket No. 50-315 Docket No. 50-316

American Electric Power Service
Corporation
Indiana and Michigan Electric Company
ATTN: Mr. John E. Dolan
Vice Chairman
Engineering and Construction
1 Riverside Plaza
Columbus, OH 43216

#### Gentlemen:

The NRC's Office for Analysis and Evaluation of Operational Data (AEOD) has completed an assessment of D. C. Cook Nuclear Plant, Unit Nos. 1 and 2, Licensee Event Reports (LERs) (Unit 1-24 LERs; Unit 2-18 LERs) as part of the NRC's Systematic Assessment of Licensee Performance (SALP) Report. The report was mailed to you on January 13, 1986.

Enclosed (Attachment C) is the assessment of the LERs from D. C. Cook Units 1 and 2. In general, AEOD found these LERs to be of marginally acceptable quality based on the requirements contained in 10 CFR 50.73. The enclosed report provides the basis for this finding.

In addition, AEOD completed a study (AEOD/P504) of unplanned reactor trips that occurred in 1984. A summary table of reactor trip frequencies from the study is provided in Attachment A.

Finally, AEOD also completed a study (AEOD/P503) of ESF actuations that occurred during the first half of 1984. Several summary tables from that study are provided in Attachment B. As part of the study of ESF actuations, AEOD noted the following specific problems associated with D. C. Cook.

- Nine units, including D. C. Cook 2, were of potential concern because they appear to have been experiencing repeated unresolved actuations which could ultimately challenge continued equipment operability and proper personnel response.
- Six units, including D. C. Cook 2, had a relatively high number of false actuations of radiation monitors. The actuations were primarily associated with radiation monitor software problems which led to isolation of containment purge. This software problem did not appear to be generic to the other units studied.

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We are providing a copy of the AEOD assessment so that you might be aware of the findings and take action to improve the overall quality of future LERs.

We request that you provide Region III with the actions you intend to take to improve the overall quality of future LERs.

We appreciate your cooperation with us in this matter. If you have any questions, please contact W. G. Guldemond (312/790-5574).

Sincerely,

"Original Signed by E.G. Greenman"

Charles E. Norelius, Director Division of Reactor Projects

Enclosure: AEOD Assessment

cc w/enclosure:
W. G. Smith, Jr., Plant Manager
DCS/RSB (RIDS)
Licensing Fee Management Branch
Resident Inspector, RIII
Ronald Callen, Michigan
Public Service Commission
EIS Coordinator, USEPA
Region 5 Office
Nuclear Facilities and
Environmental Monitoring
Section

RIII Suermann/1t 3/2786

RIII Burgess

RIII Guldemond 3/27/86

Norelius Norelius

RIII

Keppler

ATTACHMENT A

# APPENDIX A 1984 REACTOR TRIP RATES

NAME	MANUAL	AUTO	OR EQUAL	GREATER THAN 15% POWER	HOURS	TRIP RATE PER 1000 HOURS POWER GT 15	BETWEEN TRIPS
BRUMSWICK 1 CALVERT CLIFFS 1 PALISADES PEACH BOTTOM J OUAD CITIES 1 ZION 1 BROWNS FERRY 1 BEAVER VALLEY 1 OCONEE J MAINE YANKEE SAN ONOFRE 2 FITZPATRICK ARKANSAS 1 DRESDEN 2 INDIAN POINT 2 OCOLCOOK 1 PRAIRIE ISLAND 1 BROWNS FERRY 2 COOPER 1 BROWNS FERRY 2 COOPER NORTH ANNA 2 ZION 2 HADDAM NECK CALVERT CLIFFS 2 VERMUNEE CRYSTAL RIVER 3 MILLSTONE 2 FORT CALHOUN 1 R.E.GINNA FARLEY 1 BIG ROCK POINT SAN ONOFRE 1 OYSTER CREEK NINE MILLSTONE 1 H B. ROBINSON	040110410110001000000010000000000000000	7114364647443353374334632425221122302401	N0000N000N000N00-10-105-1000N0100-1000	5515345444343327333222222222222222222222222	775777698437842444449377602626262558377898457747319747558577473184244444937760262782218429377526657753853853853853853853853853809918539137499185391374991853913749918539137499185391374991853845538455384553845538455384553845538	0.71 0.664 0.662 0	1404.8 1506.25 1551.55 1551.0 1579.9 1619.2 1672.5 1672.5 1777.8 221777.8 221777.8 221777.8 221777.8 221777.8 221777.8 221777.8 22177.8 22177.8 22177.8 22177.8 22177.8 22177.8 22177.8 22177.8 22177.8 22177.8 22177.8 22177.8 22177.8 22177.8 22177.8 22177.8 22177.8 22177.8 221

## APPENDIX A 1984 REACTOR TRIP RATES

NAME	MANUAL	MATIC	OR EQUAL	GREATER THAN 15% POWER	HOURS	TRIP RATE PER 1000 HOURS POWER GT 15	POWER GT 15%
WPPSS 2 CALLAWAY 1 GRAND GULF 1 SUSQUEHANNA 2 SALEM 1 MCGUIRE 2 HATCH 2 HASALLE 2 SURRY 2 BROWNS FERRY 3 LASALLE 1 SEQUOYAH 2 NORTH ANNA 1 STUCIE 2 TURKEY POINT 4 SURRY 1 D.C.COOK 2 SUMMER ANNA 1 D.C.COOK 2 SEQUOYAH 1 SURRY 1 D.C.COOK 2 SUMMER ANNA 1 DRESDEN 3 TROJAN POINT 3	4 - 22205000522200210122101000112250002000000011	20368103077830990791762269798847595343645	76313020322100203214504201013036001100	176477687292199696667674577755546542546	9831.09 9831.0	5.70 5.90 5.90 5.90 5.90 6.18 5.90 6.18 5.90 6.18	188.6 250.5 301.8 383.6 423.3 444.8 496.6 619.7 697.8 7097.8 7097.8 7097.8 7097.8 819.6 882.5 882.5 886.6 925.6 935.7 1061.7 11218.7

# APPENDIX A 1984 REACTOR TRIP RATES

NAME	MANUAL	AUTO	OR EQUAL	GREATER THAN 15% POWER	CRITICAL	TRIP RATE PER 1000 HOURS POWER GT 15	BETWEEN TRIPS
MONTICELLO POINT BEACH 1 OCONEE 2 PEACH BOTTOM 2 PILGRIM POINT BEACH 2 PRAIRIE ISLAND 2 BYRON 1	00000	0	0000000	0000000	810.6 6420.1 8784.0 2583.9 170.3 7544.2 7844.0	000000	

ATTACHMENT B

### APPENDIX B 1984 REACTOR TRIP RATES

NAME	MANUAL	AUTO MATIC	LESS THAN OR EQUAL 15% POWER	GREATER THAN 15% POWER	CRITICAL	TRIP RATE PER 1000 HOURS POWER GT 15	MEAN TIME BETWEEN TRIPS POWER GT 15%
WPPSS 2 CALLAWAY 1 GRAND GULF 1 SUSQUEHANNA 2 SALEM 1 MCGUIRE 2 SALEM 2 HATCH 2 DIABLO CANYON 1 LASALLE 2 SURRY 2 BROWNS FERRY 3 LASALLE 1 SEQUOYAH 2 NORTH ANNA 1 ST LUCIE 2 TURKEY POINT 4 SURRY 1 D.C. COOK 2 SEQUOYAH 1 SUMMER SUSQUEHANNA 1 DRESDEN 3 TROJAN INDIAN POINT 3 TURKEY POINT 4 TURKEY POINT 5 TURKEY POINT 4 TURKEY POINT 5 TURKEY POINT 5 TURKEY POINT 6 TUR	4122050000000000000000000000000000000000	21680307783090791762269798847595343645	7631302032214504201013036001100	176477687292199696667674577755546542546	981101452 1101	5.70 3.96 3.96 2.62 2.36 2.27 2.16 1.43 1.43 1.43 1.13 1.08 1.00	175.56 2506.88 3883.31 4443.66 67097.88 389.96 389.97 846.35 846.35 888.25 99.79 1.06 1.12 1.22 1.22 1.23 1.32 1.32 1.32 1.33 1.33

#### APPENDIX B 1984 REACTOR TRIP RATES

NAME	MANUAL	MATIC	OR EQUAL 15% POWER	GREATER THAN 15% POWER	CRITICAL	TRIP RATE PER 1000 HOURS POWER GT 15	MEAN TIME BETWEEN TRIPS POWER GT 15%
BRUNSWICK 1 CALVERT CLIFFS 1 PALISADES PEACH BOTTOM 3 QUAD CITIES 1 ZION 1 BROWNS FERRY 1 BEAVER VALLEY 1 OCONEE 3 MAINE YANKEE SAN ONOFRE 2 FITZPATRICK ARKANSAS 1 DRESDEN 2 INDIAN POINT 2 OCONEE 1 DRESDEN 2 INDIAN POINT 2 OCONEE 1 PRAIRIE ISLAND 1 BROWNS FERRY 2 COOPER NORTH ANNA 2 ZION 2 HADDAM NECK CALVERT CLIFFS 2 QUAD CITIES 2 VERWAUNEE CRYSTAL RIVER 3 MILLSTONE 2 FORT CALHOUN 1 R.E.GINNA FARLEY 1 BIG ROCK POINT SAN ONOFRE 1 OYSTER CREEK NINE MILE POINT 1 MILLSTONE 1 H B ROBINSON	040110410110001000010010000000000000000	71143646474433533433463242522112302101	200000700070000000000000000000000000000	551534544434333333333333333333333333333	7031057798427444449937609262625558378960021 703507769842744444993760926262625558378960021	71 0.664 0.664 0.664 0.6666 0.66666 0.6666 0.6666 0.6666 0.6666 0.6666 0.6666 0.6666 0.6666 0.66666 0.6666	1404 .8 15551.50 15551.50 15551.55 15579.51 1619.22 167577.14 16757.77 16757.77 1777

### APPENDIX B 1984 REACTOR TRIP RATES

NAME	MANUAL	AUTO MATIC	LESS THAN OR EQUAL 15% POWER	GREATER THAN 15% POWER	CRITICAL	TRIP RATE PER 1000 HOURS POWER GT 15	MEAN TIME BETWEEN TRIPS POWER GT 15%
MONTICELLO POINT BEACH 1 OCCNEE 2 PEACH BOTTOM 2 PILGRIM POINT BEACH 2 PRAIRIE ISLAND 2 BYRON 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000	0000000	810.6 6420.1 8784.0 2583.9 170.3 7544.2 7844.0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	

TABLE A.1

NUMBER OF ESF ACTUATIONS REPORTED BY

COMMERCIAL U. S. NUCLEAR POWER PLANTS

JANUARY 1, 1984 THROUGH JUNE 30, 1984

	ESF		ESF
UNIT	ACTUATIONS	UNIT	ACTUATIONS
		ARMANISAS MUSI EAR ONE	
SAN ONOFRE 2	82	ARKANSAS NUCLEAR ONE	1 1
SEQUOYAH 1	51	BIG ROCK POINT	
WASHINGTON NUCLEAR 2	37	CALVERT CLIFFS 2	
MONTICELLO	26	COOPER	
D. C. COOK 2	25	DAVIS BESSE 1	1
DUANE ARNOLD	25	FT. ST. VRAIN	
SEQUOYAH 2	21	GINNA	1
LA SALLE 2	20	E. I. HATCH 2	
FORT CALHOUN	20	NORTH ANNA 1	S TO S
GRAND GULF 1	19	OYSTER CREEK	1
LA SALLE 1	17	POINT BEACH 2	
SAN ONOFRE 3	14	PRAIRIE ISLAND 2	
BRUNSWICK 1	10	QUAD CITIES 2	
SUSQUEHANNA 1	10	RANCHO SECO	
DIABLO CANYON 1	9 .	ROBINSON 2	
MCGUIRE 1	7	SURRY 1	0
BRUNSWICK 2	6	CALVERT CLIFFS 1	0
KEWAUNEE	6	CONNECTICUT YANKEE	0
MAINE YANKEE	6	DRESDEN 2	0
PALISADES	6	DRESDEN 3	
SUMMER 1	6	FARLEY 1	0
ARKANSAS NUCLEAR ONE		FARLEY 2	0
BROWNS FERRY 1	4	E. I. HATCH 1	0
PEACH BOTTOM 2	4	HUMBOLDT BAY	0
BROWNS FERRY 3	3	INDIAN POINT 2	0
D. C. COOK 1	3	MCGUIRE 2	0
CRYSTAL RIVER 3	3	MILLSTONE 1	0
TROJAN	3	NORTH ANNA 2	0
TURKEY POINT 3	3	OCONEE 1	0
TURKEY POINT 4	3	OCONEE 2	0
YANKEE ROWE	3	OCONEE 3	0
BEAVER VALLEY	2	PEACH BOTTOM 3	0
BROWNS FERRY 2	2 2	PILGRIM 1	0
CALLAWAY	2	POINT BEACH 1	0
FITZPATRICK	2	PRAIRIE ISLAND 1	O
INDIAN POINT 3	2	QUAD CITIES 1	0
LACROSSE	2	SALEM 2	0
MILLSTONE 2	2	ST. LUCIE 1	
NINE MILE POINT	2	ST. LUCIE 2	0
SALEM 1	2	SURRY 2	0
SAN ONOFRE 1	2	THREE MILE ISLAND 2	0
SUSQUEHANNA 2	2 2 2 2 2 2 2 2 2 2	ZION 2	. 0
THREE MILE ISLAND 1	2		
VERMONT YANKEE			
ZION 1	2		

#### Definitions

- Valid (design basis) actuation: the measured parameter actually reached the intended actuation setpoint and the condition that the ESF was intended to mitigate actually existed.
- 2. Valid (non-design basis) actuation: the measured parameter actually reached the intended actuation setpoint but the condition that the ESF was intended to mitigate did not exist. These ESF actuations resulted primarily because the actuation setpoints, as governed by the technical specification, were set very close to the parameter background levels experienced during various unit operational modes. These ESF actuations were considered to be valid but did not represent a required response to a design basis event. Rather, they were actuations resulting from non-design basis conditions, such as a accumulation of radioactive trash in front of a radiation monitor during refueling operations. These valid but non-design basis actuations were primarily associated with either toxic gas monitors or radiation-related monitors. The ESF actuations which resulted from these setpoints being reached were principally associated with isolation of the containment or auxiliary building, or with isolation of the control room emergency ventilation.
- 3. False actuation: the measured parameter did not reach the intended actuation setpoint. These actuations were a result of something other than the measured parameter reaching its intended setpoints. They were caused fairly equally by spurious signals, equipment failures, or problems related to personnel. These false ESF actuations principally affected systems whose functions were associated with either isolation or ventilation. The main parameters involved with these false actuations were radiation and loss of power.

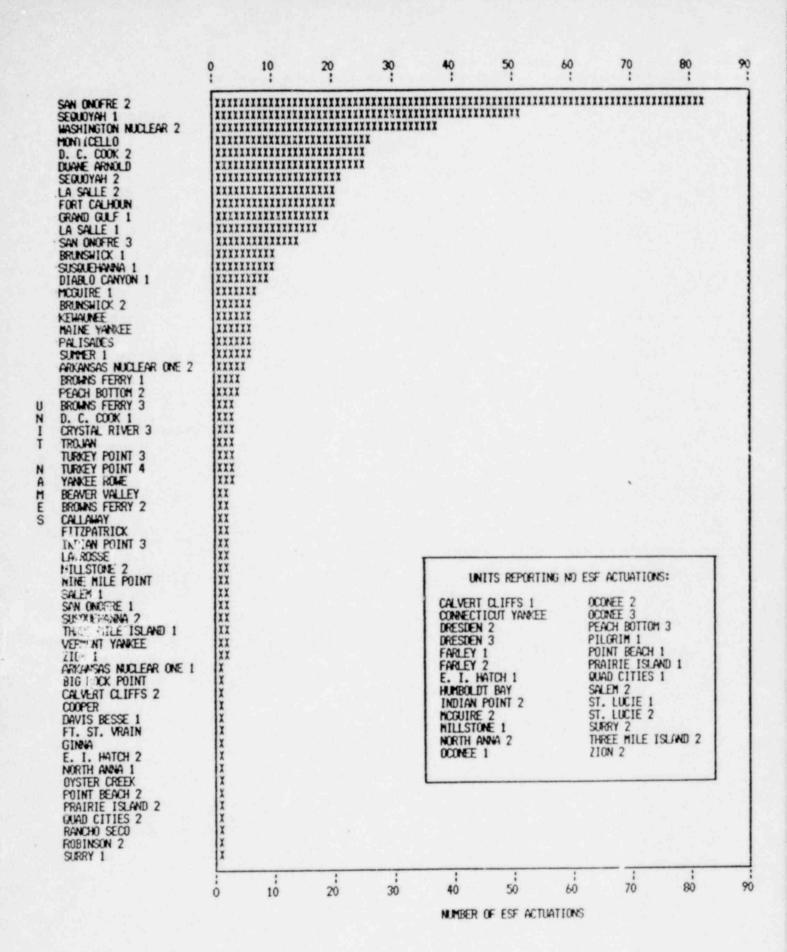


Figure 1: Unit Distribution of Engineered Safety Features Actuations (January - June 1984)

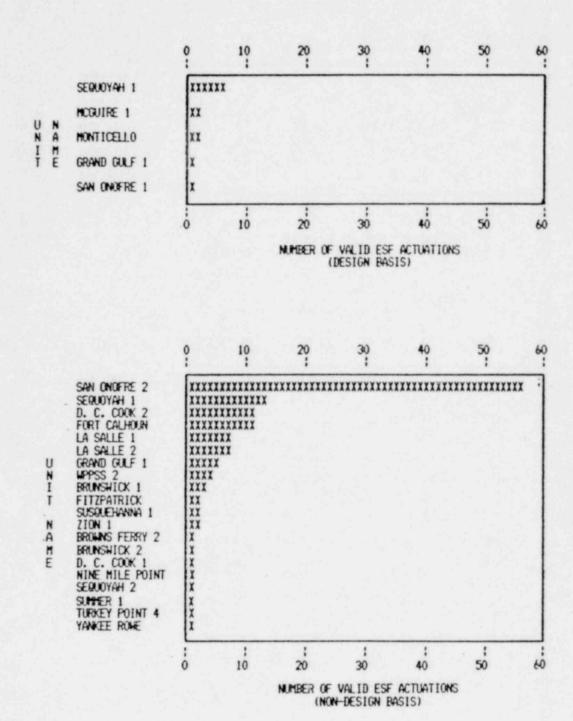


Figure 3: Unit Distribution of Valid ESF Actuations

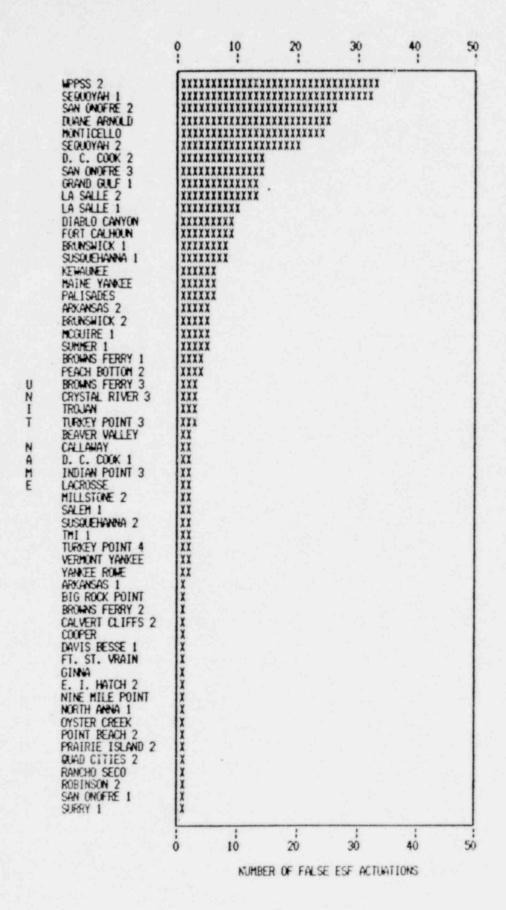


Figure 8: Unit Distribution of False ESF Actuations

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ATTACHMENT C

#### ENCLOSURE

### AEOD INPUT TO SALP REVIEW FOR D. C. COOK 1 AND 2

#### Introduction

In order to evaluate the overall quality of the contents of the Licensee Event Reports (LERs) submitted by D. C. Cook 1 and D. C. Cook 2 during the April 1, 1984 to September 30, 1985 Systematic Assessment of Licensee Performance (SALP) assessment period, a sample of each unit's LERs was evaluated using a refinement of the basic methodology presented in NUREG/CR-4178<sup>1</sup>. The sample consisted of 24 LERs for D. C. Cook 1 and 18 LERs for D. C. Cook 2, which represents fifty percent of the LERs that were available for each unit at the time the evaluation started. 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 SALP assessment period because the input was due such a short time after the end of the SALP period. Therefore, not all of the LERs prepared during the SALP assessment period were 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 met the requirements of 10 CFR 50.73(b), NUREG- $1022^2$ , and Supplements  $1^3$  and  $2^4$  to NUREG-1022.

The evaluation process for each LER was 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 were reviewed. Likewise, the text, abstract, and coded fields 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 the overall score determined 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 x text score + 0.3 x abstract score + 0.1 x coded fields score = overall LER score).

#### Evaluation Results

No attempt is made at this time to explain differences between results for multiple units beyond providing general comments, when applicable, in the Discussion of Results. However, as data is collected, scores for the units that have been evaluated will be presented for comparison purposes.

The results of the evaluation are presented by unit and are divided into two categories: (1) detailed information and (2) summary information. The detailed information, presented in Appendices A through D, consists of LfR sample information (Appendix A), a table of the specific scores for each sample LfR (Appendix B), tables of the number of deficiencies and observation for the text, abstract and coded fields (Appendix C), and comment sheets for each LER (Appendix D). When referring to these appendices, the reader is cautioned not to try to directly correlate the number of comments on an individual comment sheet with the assigned scores, as the analyst has flexibility to consider the magnitude of a deficiency when assigning scores.

In the case where multiple units are evaluated, the results are submitted in one enclosure and the summary tables are assigned an alphabetic character so that the different units can reference the same table numbers. For example in this enclosure, the letters A and B assigned to a table number correspond to D. C. Cook 1 and 2, respectively.

#### Discussion of Results

A discussion of the analysts' conclusions are presented below. These conclusions are based solely on the results of the evaluation of the LERs selected for review and as such represent the analysts' opinion of each unit's performance (on a scale of 0 to 10) in preparing LERs that meet the necessary requirements concerning contents.

The analysts made no attempt to assess differences in scores or the number of deficiencies between D. C. Cook 1 and D. C. Cook 2 because sufficient information is not available concerning how LERs are prepared or reviewed at each unit.

# Evaluation Results for D. C. Cook 1

Table 1A presents the average scores for the sample of LERs evaluated for D. C. Cook 1. The reader is cautioned that the scores resulting from the methodology used for this evaluation are not directly comparable to the scores contained in NUREG/CR-4178 due to refinements in the methodology. In order to place the scores provided in Table 1A in perspective, the scores from other units that have been evaluated using this methodology are provided in Table 2. Additional units will be added to Table 2 as they are evaluated. Table 3A and Appendix Table B-1 provide a summary of the information that is the basis for the average scores in Table 1A. For example, D. C. Cook 1's average score for the text of the LERs that were evaluated is 6.4 out of a possible 10 points. From Table 3A it can be seen that the text score actually resulted 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)(ii)(A)] to text

	Average	High	Low
Text	6.4	8.6	2.8
Abstract	8.3	10.0	3.4
Coded Fields	8.4	9.3	5.8
Overall	7.2 <sup>b</sup>	8.8	3.3

a. See Appendix 8 for a summary of scores for each LER that was evaluated.

b. Overall Average = 60% Text Average + 30% Abstract Average + 10% Coded Fields Average.

TABLE 2. COMPARISON OF AVERAGE SCORES FROM OTHER UNITS

Unit Name <sup>a</sup>	End SALP Period	Text Average	Abstraci Average	Coded Fields Average	Overall Average ( ) <sup>b</sup>
Salem 2	9-30-85	8.9	8.9	8.6	8.9 (0.7)
Salem 1	9-30-85	8.6	9.0	8.9	8.8 (0.9)
LaSalle 1	9-30-85	7.9	8.1	8.6	8.0 (1.2)
LaSalle 2	9-30-85	8.0	7.7	8.6	8.0 (1.3)
Catawba 1	9-30-85	8.0	7.4	8.6	7.9 (1.0)
Beaver Valley 1	9-30-85	7.2	8.3	8.8	7.7 (1.2)
Quad Cities 2	9-30-85	7.9	6.4	8.6	7.5 (0.9)
Quad Cities 1	9-30-85	7.9	6.5	8.4	7.5 (1.1)
Cook 2	9-30-85	6.7	8.3	8.4	7.3 (0.8)
Dresden 3	9-30-85	7.2	7.3	8.0	7.3 (1.4)
Palo Verde 1	9-30-85	6.8	7.7	8.4	7.3 (1.7)
Cook 1	9-30-85	6.4	8.3	8.4	7.2 (1.3)
Zion 2	9-30-85	7.2	6.7	8.2	7.1 (1.0)
Dresden 2	9-30-85	6.9	7.3	7.9	7.1 (1.4)
Zion 1	9-30-85	6.0	7.5	7.9	6.6 (1.0)

a. Units are ordered by overall average score.

b. Standard deviation of overall average score.

EXT	Percentage
Requirements [50.73(b)] - Descriptions	Scores ()
2)(ii)(A) Plant condition prior to event (2)(ii)(B) Inoperable equipment that contributed (2)(ii)(C) Date(s) and approximate times	85 (24) b 81 (24)
(2)(ii)(D) Root cause and intermediate cause(s) (2)(ii)(E) Mode, mechanism, and effect (2)(ii)(F) EIIS Codes	69 (24) 70 (10) 39 (23)
(2)(ii)(G) Secondary function affected (2)(ii)(H) Estimate of unavailability (2)(ii)(I) Method of discovery	50 (12) 60 (24)
<pre>(2)(ii)(J)(1) - Operator actions affecting course (2)(ii)(J)(2) - Personnel error (procedural deficiency) (2)(ii)(K) Safety system responses</pre>	82 (15) 64 (18) 100 (7)
(2)(ii)(L) Manufacturer and model no. information (3) Assessment of safety consequences (4) Corrective actions	43 (7) 38 (24) 76 (24)
<ul><li>(5) Previous similar event information</li><li>(2)(i) Text presentation</li></ul>	21 (24) 74 (24)
ABSTRACT	Percentage
Requirements [50.73(b)(1)] - Descriptions	Scores ( )
<ul> <li>Major occurrences (Immediate cause and effect information)</li> </ul>	95 (24)
- Description of plant, system, component, and/or personnel responses	78 (17)
- Root cause information	69 (24)
- Corrective Action information	88 (24)
- Abstract presentation	81 (24)

CODED FIELDS  Item Number(s) - Description	Percentage Scores () <sup>a</sup>
1, 2, and 3 - Facility name (unit no.), docket no. and page number(s)	100 (24)
4 Title	52 (24)
5, 6, and 7 - Event date, LER No., and report date	97 (24)
8 Other facilities involved	93 (24)
9 and 10 Operating mode and power level	100 (24)
11 Reporting requirements	94 (24)
12 Licensee contact information	97 (24)
13 Soded component failure information	85 (24)
14 and 15 Supplemental report information	92 (24)

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.

presentation. The percent scores in the text summary section of Table 3A provide an indication of how well each text requirement was addressed by the licensee for the 24 LERs that were evaluated.

### Discussion of Specific Deficiencies

A review of the percentage scores presented in Table 3A will quickly point out those areas where the licensee is experiencing the most difficulty in preparing LERs. For example, the licensee's percentage score for requirement 50.73(b)(2)(ii)(D), (i.e., cause information for occurrences) is only 69%. Thirteen of the 24 LERs failed to provide adequate root cause information. Root cause information is very useful to the analyst who uses LER data for the purpose of looking for generic problems but root cause information is even more important to the licensee that has experienced the event. It is only through adequate determination of root causes that implementation of the necessary corrective actions can be accomplished, thereby preventing recurrence of the event or similar events. The remaining deficiencies will be discussed in their relative order of importance.

The D. C. Cook I LERs were generally deficient in the area of assessing the safety consequences of the event. Eighteen of the 24 LERs did not contain or did not adequately discuss safety consequences and implications. Safety consequences were addressed in most of the LERs but not in sufficient detail. Stating that "the consequences were minimal because the problem was quickly identified and corrected" is not adequate. The discussion should indicate what could have happened had the problem not been identified and corrected quickly or indicate what other systems, components, and/or procedures were available to mitigate the consequences. Likewise, it is inadequate to state that "there were no safety consequences because the reactor was shutdown" if it is possible to have the same scenario happen during power operation.

For certain events, such as the unscheduled actuation of the Reactor Protection System (RPS) or an Engineered Safety Feature (ESF) System, it may be enough to state that "the actuation placed the plant in a more conservative condition relative to plant safety", provided, of course, that there were no increased safety consequences as a result of the actuation.

Fourteen of the 18 LERs involving personnel error were deficient. In half of these, personnel error was not explicitly given as a cause but had to be inferred from other discussions (e.g., corrective actions). Another common deficiency in this area was failure to state whether the personnel error was cognitive or involved a procedural error. Often the type (i.e., licensed operator, maintenance supervisor, etc.) of personnel involved was not stated.

Five of the 10 LERs involving a component failure were deficient in that they did not provide failure mode, failure mechanism (immediate cause), and/or failure effect information. Such information can often be inferred from other areas of the LER but this requires certain assumptions on the part of the reader. Failure mode, mechanism, and effect information should be provided for each component failure and, in some cases, fault. For example, if an operator inadvertently shuts a safety related valve, the reader would like to know precisely how this occurrence affected the plant (e.g., "no boron injection was possible from train A as a result of the valve being closed").

Another deficiency related to components involved requirement 50.73(b)(2)(ii)(L). Four of the LERs involving component failure did not provide manufacturer and model number information in the text. This, or other identification information, should be provided whenever a component failure or a component design problem contributes to an event.

Although the corrective actions requirement percentage score is not below average, a large number (11 of 24) of LERs failed to provide all the necessary information concerning corrective actions. It is not enough to

discuss only the immediate corrective actions. Those actions necessary to prevent recurrence of the event or similar events must also be discussed. The success of these long-term corrective actions is obviously a function of how well the cause of each occurrence is determined. Without determining the root cause of each occurrence, adequate long-term corrective actions can not be planned.

Six of the 12 LERs involving safety system trains did not provide adequate dates or times so that the unavailability time of the train could be determined. This kind of information is required as it becomes part of the generic data necessary to perform probabilistic risk assessments (PRAs).

Nine of the 24 LERs failed to provide the method of discovery for each component or system failure and/or procedural or personnel error. Such information is required as it provides the reader with the details as to what particular activity was in progress that led to a discovery. This kind of information may prompt others to implement some of these same activities (e.g., semi-annual reviews, post-test walkdowns, etc.) at their facility.

Previous similar event information was not provided in 15 of the 24 LERs. The determination of whether or not any previous similar events have occurred at your unit (or units) can aid in identifying recurring problems or trends. If no previous similar events are found, the text should so state.

Energy Industry Identification System (EIIS) component function identifier and/or system name codes were not provided in two-thirds of the LERs for D. C. Cook 1.

The text presentation was lower than average for three reasons:

1) information was not consistent as it was not presented in a structured format, 2) the text (and abstract) were presented in all capital letters which made it more difficult to identify information that is normally capitalized, (e.g., component designators, system names, modes, and

position titles), and 3) many of the "text presentations" consisted of only an abstract. Over half of the D. C. Cook's LERs (13 of 24) were abstracts with no text. This is permissible, but when it is done, the abstract must contain all the information that is required to be in a text. This is often difficult to accomplish in the space available for an abstract and probably accounts for the lower than average overall text scores.

The abstracts were generally deficient in the areas of root cause, which is a reflection of the text deficiency in this same area.

In the coded field area, all the titles were deficient. They all lacked information concerning root cause and over half lacked a linking phrase. Most titles provided the result of the event, (i.e., why the event had to be reported). An adequate title should contain three elements: root cause, result, and a phrase or words tht make it possible for the reader to understand how the two elements are linked. For example, a title such as "personnel error causes scram" contains root cause and result but does not tell the reader anythin about the intermediate details. This intermediate information (link) is useful for the reader who uses titles to select categories of LERs from a hardcopy file. The other items in the coded fields were generally good.

Evaluation Results for D. C. Cook 2

Tables 18 and 38 provide a summary of the D. C. Cook 2 evaluation. See Table 2, in order to place the D. C. Cook 2 scores in perspective.

A review of Table 3B indicates that D. C. Cook 2 has essentially the same deficiencies as D. C. Cook 1 and therefore, a separate discussion of specific D. C. Cook 2 deficiencies is not required. Table 4 provides a summary of the areas that require improvement for D. C. Cook LERs. Table 4 is applicable to both D. C. Cook 1 and D. C. Cook 2.

TABLE 1B. SUMMARY OF SCORES FOR D.C. COOK 2

	Average	High	Low
Text	6.7	9.3	5.0
Abstract	8.3	10.0	6.0
Coded Fields	8.4	9.9	6.3
Overall	7.3 <sup>b</sup>	9.3	6.1

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

b. Overall Average = 60% Text Average + 30% Abstract Average + 10% Coded Fields Average.

EXT	Percentage	
Requirements [50.73(b)] - Descriptions	Scores ()a	
2)(ii)(A) Plant condition prior to event 2)(ii)(B) Inoperable equipment that contributed 2)(ii)(C) Date(s) and approximate times	89 (18) 5 94 (18)	
(2)(ii)(D) Root cause and intermediate cause(s) (2)(ii)(E) Mode, mechanism, and effect (2)(ii)(F) EIIS Codes	78 (18) 95 (5) 29 (17)	
(2)(ii)(G) Secondary function affected (2)(ii)(H) Estimate of unavailability (2)(ii)(I) Method of discovery	b 83 (6) 69 (18)	
<pre>(2)(ii)(J)(1) - Operator actions affecting course (2)(ii)(J)(2) - Personnel error (procedural deficiency) (2)(ii)(K) Safety system responses</pre>	82 (11) 58 (12) 74 (7)	
(2)(ii)(L) Manufacturer and model no. information (3) Assessment of safety consequences (4) Corrective actions	0 (3) 26 (18) 83 (18)	
(5) Previous similar event information (2)(i) Text presentation	33 (18) 67 (18)	
ABSTRACT	Percentage	
Requirements [50.73(b)(1)] - Descriptions	scores ( )	
- Major occurrences (Immediate cause and effect information)	93 (18)	
<ul> <li>Description of plant, system, component, and/or personnel responses</li> </ul>	85 (14)	
- Root cause information	65 (18)	
- Corrective Action information	90 (18)	
- Abstract presentation	82 (18)	

Item Number(s) - Description	Percentage Scores ( ) <sup>a</sup>
1, 2, and 3 - Facility name (unit no.), docket no. and page number(s)	100 (18)
4 Title	49 (18)
5, 6, and 7 - Event date, LER No., and report date	100 (18)
8 Other facilities involved	100 (18)
9 and 10 Onerating mode and power level	94 (18)
11 Reporting requirements	100 (18)
12 Licensee contact information	98 (18)
13 Coded component failure information	87 (18)
14 and 15 Supplemental report information	100 (18)

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.

Areas	Comments
Personnel error discussions	Details should be explicitly stated; the cause of personnel error should be discussed, (e.g., cognitive or procedural). Contributing factors should be provided when appropriate.
Safety assessment information	Statements involving consequences or implication were often missing or boiler plate statements such as, "minimal safety significance because all system functioned as designed". More effort should be placed on providing a discussion of the safety implications or justification for the boiler plate statements.
Root cause information	More details should be provided. Rooc cause can sometimes only be inferred from the corrective actions.
Corrective action information	Long-term corrective actions necessary to prevent recurrence and similar events should be discussed in each LER.
Failure mode, mechanism, and effect information	Details concerning all three aspects of every component failure should be provided. While mode and mechanism are often provided, the reader is often unfamiliar with the precise effect that a specific component failure will have on a system and/or the plant.
Manufacturer and model number information	Component identification information should be included in the text whenever a component fails or is suspected to have contributed to the event because of its design.

Areas	Comments	
Safety train unavailability	Sufficient dates and times should be included in the text to enable the reader to determination of the length of time that safety system trains or components were out of service.	
Previous similar events	Previous similar events should be reference (LER Number) or the text should state there are none.	
Method of discovery	Information concerning what activity led to the discovery of each occurrence discussed in the text should be provided.	
EIIS codes	Codes for each component and system involved in the event should be provided.	
Text presentation and readability	The practice of providing an abstract with no text should be avoided except for very minor and easily explained events. An outline format is recommended; the use of all capital letters is not.	
Abstract	Root cause information was often inadequate.	
Coded Fields		
a. Titles	Titles need to be written such that they better describe the essence of the event.	

#### REFERENCES

- B. S. Anderson, C. F. Miller, B. M. Valentine, <u>An Evaluation of Selected Licensee Event Reports Prepared Pursuant to 10 CFR 50.73</u> (DRAFT), NUREG/CR-4178, March 1985.
- Office for Analysis and Evaluation of Operational Data, <u>Licensee Event</u> <u>Report System</u>, NUREG-1022, U.S. Nuclear Regulatory Commission, September 1983.
- 3. Office for Analysis and Evaluation of Operational Data, <u>Licensee Event</u>
  <u>Report System</u>, NUREG-1022 Supplement No. 1, U.S. Nuclear Regulatory
  Commission, February 1984.
- Office for Analysis and Evaluation of Operational Data, <u>Licenseee</u> <u>Event Report System</u>, NUREG-1022 Supplement No. 2, U.S. Nuclear Regulatory Commission, September 1385.

### APPENDIX A

LER SAMPLE SELECTION
INFORMATION
FOR D. C. COOK 1 AND 2

TABLE A-1. LER SAMPLE SELECTION FOR D.C. COOK 1 (315)

LER Sample Number	LER Number	Comments
1	84-004-00	
2	84-008-00	SCRAM
3	84-011-00	SCRAM
4	84-014-00	
5	84-015-00	
6	84-016-00	
7	84-017-00	SCRAM
8	84-022-00	
9	84-023-00	
10	84-024-00	
11	84-025-00	
12	84-030-00	
13	84-031-00	
14	84-032-00	
15	85-002-00	
16	85-003-00	
17	85-006-00	
18	85-013-00	
19	85-016-00	
20	85-019-00	
21.	85-020-00	

TABLE A-1. (continued)

LER Sample Number	LER Number	Comments
22	85-021-00	
23	85-022-00	SCRAM
24	85-025-00	

TABLE A-2. LER SAMPLE SELECTION FOR D. C. COOK 2 (316)

LER Sample Number	LER Number	Comments
1	84-011-00	SCRAM
2	84-012-00	SCRAM
3	84-015-00	
4	84-016-00	
5	84-017-00	
6	84-018-00	
7	84-019-01	
8	84-021-00	
9	84-027-00	
10	84-028-00	
11	84-030-00	SCRAM
12	84-032-00	SCRAM
13	84-033-00	
14	84-034-00	SCRAM
15	85-003-00	SCRAM
16	85-009-00	
17	85-010-00	
18	85-011-00	

## APPENDIX B

EVALUATION SCORES OF INDIVIDUAL LERS FOR D. C. COOK 1 AND 2

TABLE B-1. EVALUATION SCORES OF INDIVIDUAL LERS FOR D. C. COOK 1

							LE	R Sampl	e Numbe	ra						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Text	6.6	6.9	7.4	6.8	6.6	4.5	7.8	7.3	5.5	8.0	7.2	3.6	4.1	5.4	7.1	6.
Abstract	9.8	8.8	10.0	9.0	9.0	7.0	10.0	9.1	6.3	8.5	9.3	9.4	7.3	9.0	7.5	9.
Coded Fields	8.8	8.4	8.3	7.9	9.3	7.6	7.8	9.3	8.3	7.9	8.4	8.3	8.7	8.9	7.9	8.
Overall	7.8	7.6	8.3	7.6	7.6	5.6	8.5	8.0	6.0	8.1	8.0	5.8	5.5	6.8	7.3	7.
							LE	R Sampl	e Numbe	r						
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	AVERA	GE
Text	8.6	8.2	7.0	2.8	7.9	3.8	8.0	6.4							6.	4
Abstract	6.9	10.0	8.5	3.4	8.6	6.5	8.5	7.0							8.	3
Coded Fields	9.3	8.9	7.8	5.8	9.2	8.9	7.8	8.4							8.	4
Overall	8.2	8.8	7.5	3.3	8.2	5.1	8.1	6.8							7.	2

TABLE 8-2. EVALUATION SCORES OF INDIVIDUAL LERS FOR D. C. COOK 2

							LE	R Samp	e Numbe	era						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Text	5.7	7.3	7.1	6.0	5.4	6.8	7.1	6.4	7.6	5.0	7.0	7.4	6.6	5.6	7.6	9.
Abstract	7.0	7.0	8.5	6.0	8.6	7.5	10.0	9.6	8.9	7.5	9.0	8.9	9.0	7.5	8.5	9.8
Coded Fields	8.4	8.9	9.4	6.3	8.7	8.4	8.3	7.9	9.2	8.9	7.8	8.2	9.9	3.4	7.7	8.1
Overal1	6.4	7.4	7.8	6.1	6.7	7.2	8.1	7.5	8.2	6.1	7.7	7.9	7.7	6.5	7.9	9.3
							LE	R Sampl	e Numbe	r						
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	AVERA	GE
Text	6.1	6.0													6.	7
Abstract	8.4	7.2													8.	
Coded Fields	8.8	8.3													8.	
	7.1	6.6													0.	

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

## APPENDIX C

DEFICIENCY AND OBSERVATION COUNTS FOR D. C. COOK 1 AND 2

	Deficie	Number of LERs with Deficiencies and Observations					
Description of Deficiencies and Observation	Sub-paragraph IS Totals <sup>a</sup>	Paragraph Totals (	) b				
50.73(b)(2)(ii)(A)Plant operating conditions before the event were not included or were inadequate.		6 (24)					
50.73(b)(2)(ii)(B)Discussion of the state 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 (6)					
$\frac{50.73(b)(2)(ii)(C)}{\text{sufficient date and/or time information.}}$		8 (24)					
<ul> <li>a. Date information was insufficient.</li> <li>b. Time information was insufficient.</li> </ul>	3 7						
50.73(b)(2)(ii)(D)The root cause and/or intermediate failure, system failure, or personnel error was not included or was inadequate.		13 (24)					
a. Cause of component failure was not included or was inadequate	4						
b. Cause of system failure was not included or was inadequate	6						
c. Cause of personnel error was not included or was inadequate.	7						
50.73(b)(2)(ii)(E)The failure mode, mechanism (immediate cause), and/or effect (consequence) for each failed component wa not included or was inadequate.	s	5 (10)					
a. Failure mode was not included or was	2						
b. Mechanism (immediate cause) was not	4						
included or was inadequate c. Effect (consequence) was not include	d 0						
or was inadequate.							

	Number of LERs with Deficiencies and Observations					
	Sub-paragraph	Paragraph				
Description of Deficiencies and Observations	Totalsa	Totals ( )b				
50.73(b)(2)(ii)(F)The Energy Industry Identification System component function identifier for each component or system was not included.		16 (23)				
50.73(b)(2)(ii)(G)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 (2)				
50.73(b)(2)(ii)(H)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.		6 (12)				
50.73(b)(2)(ii)(I)The method of discovery of each component failure, system failure, personnel error, or procedural error was not included or was inadequate.		9 (24)				
a. Method of discovery for each component failure was not included or was inadequate	1					
b. Method of discovery for each system failure was not included or was inadequate	3					
c. Method of discovery for each personnel error was not included or was inadequate	9					
d. Method of discovery for each procedural error was not included or was inadequate.	2					

		Number of LERs with Deficiencies and Observations					
		Sub-paragraph	Paragraph				
Description of Deficiencies and Observations		Totalsa	Totals ( )b				
affec opera defic	(b)(2)(ii)(J)(1)Operator actions that ited the course of the event including tor errors and/or procedural iencies were not included or were quate.		4 (15)				
each	B(b)(2)(ii)(J)(2)The discussion of personnel error was not included or was equate.		14 (18)				
а.	OBSERVATION: A personnel error was implied by the text, but was not explicitly stated.	7					
b.	50.73(b)(2)(ii)(J)(2)(i)Discussion as to whether the personnel error was cognitive or procedural was not	7					
с.	included or was inadequate.  50.73(b)(2)(ii)(J)(2)(ii)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.	3					
d.		0					
е.	50.73(b)(2)(ii)(J)(2)(iv)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.	5					

	Number of LERs with Deficiencies and Observations				
Description of Deficiencies and Observations	Sub-paragraph	Paragraph			
Description of Deficiencies and Observations	Totalsa	Totals (	)b		
50.73(b)(2)(ii)(K)Automatic and/or manual safety system responses were not included or were inadequate.		0 (7)			
50.73(b)(2)(ii)(L)The manufacturer and/or model number of each failed component was not included or was inadequate.		4 (7)			
50.73(b)(3)An assessment of the safety consequences and implications of the event was not included or was inadequate.		18 (24)			
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 that should state that none	3				
existed.  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.	5				
50.73(b)(4) 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.		11 (24)			

		Number of LERs with Deficiencies and Observations			
Description of 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 operation condition or correct the personnel error) was not included or was inadequate.				
b.		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.	5			
simil	3(b)(5)Information concerning previous lar events was not included or was equate.		15 (24)		

Description of Deficiencies and Observations		Number of LERs with Deficiencies and Observations				
		Sub-paragraph Totals <sup>a</sup>	Paragraph Totals ( ) <sup>b</sup>			
	(b)(2)(i) Text presentation equacies.		5 (24)			
a,	OBSERVATION: A diagram would have aided in understanding the text discussion.	0				
b.	Text contained undefined acronyms and/or plant specific designators.	0				
с.	The text contains other specific deficiencies relating to the readability.	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, (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 applicable.

	Number of LERs with Deficiencies and Observations					
Description of 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		2 (24)				
A summary of plant, system, and/or personnel responses was not included or was inadequate.		7 (17)				
<ul> <li>Summary of plant responses was not included or was inadequate.</li> </ul>	3					
b. Summary of system responses was not included or was inadequate.	0					
c. Summary of personnel responses was not included or was inadequate.	4					
A summary of the root cause of the event was not included or was inadequate.		12 (24)				
A summary of the corrective actions taken or planned as a result of the event was not included or was inadequate.		7 (24)				

		Number of LERs with Deficiencies and Observations					
Description of Deficiencies and Observations		Sub-paragraph Totals <sup>a</sup>	Paragraph Totals (	) b			
-	act presentation inadequacies		6 (24)				
à.	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.		4					
с.	The abstract contains undefined acronyms and/or plant specific	0					
d.	designators. 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, (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 deficiency or observation. The number in parenthesis is the number of LERs for which a certain requirement was applicable.

	Deficie	Number of LERs with Deficiencies and Observations					
	Sub-paragraph	Paragraph					
Description of Deficiencies and Observations	Totalsa	Yotals (	b				
Facility Name		0 (24)					
<ul> <li>a. Unit number was not included or incorrect.</li> <li>b. Name was not included or was incorrect.</li> <li>c. Additional unit numbers were included but not required.</li> </ul>							
Docket Number was not included or was incorrect.		0 (24)					
Page Number was not included or was incorrect.		1 (24)					
Title was inadequate		24 (24)					
<ul> <li>a. Root cause was not given in title</li> <li>b. Result (effect) was not given in title</li> <li>c. Link was not given in title</li> </ul>	24 3 13						
Event Date		0 (24)					
<ul> <li>Date not included or was incorrect.</li> <li>Discovery date given instead of event date.</li> </ul>							
LER Number was not included or was incorrect		0 (24)					
Report Date		3 (24)					
<ul> <li>Date not included</li> <li>OBSERVATION: Report date was not within thirty days of event date (or discovery date if appropriate).</li> </ul>	1 2						
Other Facilities information in field is inconsistent with text and/or abstract.		3 (24)					
Operating Mode was not included or was inconsistent with text or abstract.		0 (24)					

		Deficie	LERs with ncies and vations	
		Sub-paragraph	Paragraph	
Descri	Description of Deficiencies and Observations		Totals (	)t
Power	level was not included or was sistent with text or abstract		0 (24)	
Report	ting Requirements		2 (24)	
a.	The reason for checking the "OTHER" requirement was not specified in the abstract and/or text.	0		
b.	OBSERVATION: It would have been more appropriate to report the event under a different paragraph.	1		
с.	OBSERVATION: It would have been appropriate to report this event under additional unchecked paragraphs.	1		
Licen	see Contact		0 (24)	
a. b. c. d.	Field left blank Position title was not included Name was not included Phone number was not included.			
Coded	Component Failure Information		2 (24)	
a.	One or more component failure sub-fields were left blank.	0		
b.	Cause, system, and/or component code is inconsistent with text.	2		
с.	Component failure field contains data when no component failure occurred.	0		
d.	Component failure occurred but entire field left blank.	0		

		ober of LERs with Deficiencies and Observations	
Description of Deficiencies and Observations	Sub-paragraph (fotals <sup>a</sup>	Paragraph Totals ( ) <sup>b</sup>	
Supplemental Report		2 (24)	
a. Neither "Yes"/"No" block of the supplemental report field was checked.	2		
b. The block checked was inconsistent with the text.			
Expected submission date information is inconsistent with the block checked in Item (14).		0 (24)	

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 a certain requirement was applicable.

Number of LERs with Deficiencies and Observations Paragraph Sub-paragraph Totals ( Totalsa Description of Deficiencies and Observations 2 (18) 50.73(b)(2)(ii)(A)--Plant operating conditions before the event were not included or were inadequate. 0 (4) 50.73(b)(2)(ii)(B)--Discussion of the status of 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. 3 (18) 50.73(b)(2)(ii)(C)--Failure to include sufficient date and/or time information. a. Date information was insufficient. 3 b. Time information was insufficient. 7 (18) 50.73(b)(2)(ii)(D)--The root cause and/or intermediate failure, system failure, or personnel error was not included or was inadequate. 3 a. Cause of component failure was not included or was inadequate b. Cause of system failure was not included or was inadequate 3 c. Cause of personnel error was not included or was inadequate. 1 (5) 50.73(b)(2)(ii)(E) -- The failure mode, mechanism (immediate cause), and/or effect (consequence) for each failed component was not included or was inadequate. 0 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.

	Deficie	LERs with ncies and vations
	Sub-paragraph	Paragraph
Description of Deficiencies and Observations	Totalsa	Totals ( )b
50.73(b)(2)(ii)(F)The Energy Industry Identification System component function identifier and/or system identifier for each component or system was not included.		13 (17)
50.73(b)(2)(ii)(G)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 (0)
50.73(b)(2)(ii)(H)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.		1 (6)
50.73(b)(2)(ii)(1)—The method of discovery of each component failure, system failure, personnel error, or procedural error was not included or was inadequate.		6 (18)
<ul> <li>Method of discovery for each component failure was not included or was inadequate.</li> </ul>	2	
b. Method of discovery for each system failure was not included or was inadequate.	1	
<ul> <li>Method of discovery for each personnel error was not included or was</li> </ul>	3	
inadequate.  d. Method of discovery for each procedural error was not included or was inadequate	1	
50.73(b)(2)(ii)(J)(1)Operator actions that affected the course of the event including operator errors and/or procedural deficiencies were not included or were inadequate.		4 (11)

		Number of LERs with Deficiencies and Observations	
		Sub-paragraph	Paragraph
Descr	iption of Deficiencies and Observations	Totals	Totals ( )D
each	personnel error was not included or was equate.		6 (12)
a.	OBSERVATION: A personnel error was implied by the text, but was not explicitly stated.	4	
b.	50.73(b)(2)(ii)(J)(2)(i)Discussion as to whether the personnel error was cognitive or procedural was not	5	
с.	included or was inadequate.  50.73(b)(2)(ii)(J)(2)(ii)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	1	
d.	not included or was inadequate. 50.73(b)(2)(ii)(J)(2)(iii)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.	co main viavititiviaviavi Discussion	2	
safe	3(b)(2)(ii)(K)Automatic and/or manual ty system responses were not included or inadequate.		3 (7)
mode	3(b)(2)(ii)(L)The manufacturer and/or l number of each failed component was included or was inadequate.		3 (3)

Description of Deficiencies and Observations		Deficie	LERs with ncies and vations
		Sub-paragraph Totals <sup>a</sup>	Paragraph Totals ( ) <sup>b</sup>
conseq	b)(3)An assessment of the safety uences and implications of the event t included or was inadequate.		17 (18)
	OBSERVATION: The availability of 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.	2	
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.		
action: includ of sim	b)(4)A discussion of any corrective s planned as a result of the event ing those to reduce the probability ilar events occurring in the future t included or was inadequate.		8 (18)
	A discussion of actions required to correct the problem (e.g., return the component or system to operation or correct the personnel) was not included or was inadequate.	0	
b.	A discussion of actions required to reduce the probability or recurrence of the problem or similar event (correct the root cause) was not	2	
c. (	included or was inadequate.  DESERVATION: 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 manufacturers and model number) was not included or was inadequate.	1	

	Number of LERs with Deficiencies and Observations	
Description of Deficiencies and Observations	Sub-paragraph Totals <sup>a</sup>	Paragraph Totals ( ) <sup>b</sup>
50.73(b)(5)Information concerning previous similar events was not included or was inadequate.		10 (18)
50.73(b)(2)(i)Text presentation inadequacies.		0 (18)

- a. OBSERVATION: A diagram would have aided in understanding the text discussion.
- Text contained undefined acronyms and/or plant specific designators.
- c. The text contains other specific deficiencies relating to the readability.

a. The "sub-paragraph total" is a tabulation of specific deficiencies or observations within certain requirements (i.e., paragraphs). 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 a the requirement was considered applicable.

	Number of LERs with Deficiencies and Observations		
Description of 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.		2 (18)	
A summary of plant, system, and/or personnel responses was not included or was inadequate.		5 (14)	
<ul> <li>Summary of plant responses was not included or was inadequate.</li> </ul>	0		
<ul> <li>Summary of system responses was not included or was inadequate.</li> </ul>	2		
c. Summary of personnel responses was not included or was inadequate.	3		
A summary of the root cause of the event was not included or was inadequate.		11 (18)	
A summary of the corrective actions taken or planned as a result of the event was not included or was inadequate.		4 (18)	

		Deficien	LERs with ncies and vations
Descr	iption of Deficiencies and Observations	Sub-paragraph Totals <sup>a</sup>	Paragraph Totals ( ) <sup>b</sup>
Abstr	act presentation inadequacies.		2 (18)
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 contains undefined acronyms and/or plant specific designators.	0	
с.	The abstract contains other specific deficiencies (ie., poor summarization, contradictions etc.)	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 subtotals do not necessarily add up to the 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 applicable.

	Number of LERs with Deficiencies and Observations		
Description of Deficiencies and Observations	Sub-paragraph Totals <sup>a</sup>	Paragraph Totals ( )	b
Facility Name		0 (18)	
<ul> <li>a. Unit number was not included or incorrect.</li> <li>b. Name was not included or was incorrect.</li> <li>c. Additional unit numbers were included but not required.</li> </ul>			
Docket Number was not included or was incorrect.		0 (18)	
Page Number was not included or was incorrect.		0 (18)	
Title was inadequate		17 (18)	
<ul> <li>a. Root cause was not given in title</li> <li>b. Result (effect) was not given in title</li> <li>c. Link was not given in title</li> </ul>	17 1 9		
Event Date		0 (18)	
<ul><li>a. Date not included or was incorrect.</li><li>b. Discovery date given instead of event date.</li></ul>			
LER Number was not included or was incorrect		0 (18)	
Report Date		0 (18)	
<ul> <li>Date not included</li> <li>OBSERVATION: Report date was not within thirty days of event date (or discovery date if appropriate).</li> </ul>			
Other Facilities information in field is inconsistent with text and/or abstract.		0 (18)	
Operating Mode was not included or was inconsistent with text or abstract.		1 (18)	

		Deficie	LERs with ncies and vations
		Sub-paragraph	Paragraph
Descr	iption of Deficiencies and Observations	Totalsa	Totals ( )
	level was not included or was sistent with text or abstract		1 (18)
Repor	ting Requirements		0 (18)
a.	The reason for checking the "OTHER" requirement was not specified in the abstract and/or text.		
b.	OBSERVATION: It would have been more appropriate to report the event under a different paragraph.		
с.	OBSERVATION: It would have been appropriate to report this event under additional unchecked paragraphs.		
Licen	see Contact		1 (18)
a.	Field left blank	0	
b.	Position title was not included	1	
с.	Name was not included	0	
d.	Phone number was not included.	0	
Coded	Component Failure Information		4 (18)
a.	One or more component failure sub-fields were left blank.	1	
b.	Cause, system, and/or component code is inconsistent with text.	0	
с.	Component failure field contains data when no component failure occurred.	1	
d.	Component failure occurred but entire field left blank.	2	

	Number of LERs with Deficiencies and Observations	
Description of Deficiencies and Observations	Sub-paragraph Totals <sup>a</sup>	Paragraph Totals ( ) <sup>b</sup>
Supplemental Report		0 (18)
<ul> <li>a. Neither "Yes"/"No" block of the supplemental report field was checked.</li> <li>b. The block checked was inconsistent</li> </ul>		
<ul> <li>The block checked was inconsistent with the text.</li> </ul>		
Expected submission date information is inconsistent with the block checked in Item (14).		0 (18)

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 a certain requirement was applicable.

APPENDIX D

LER COMMENT SHEETS FOR D. C. COOK 1 AND 2

Comments Section 1. LER Number: 84-004-00 Scores: Text = 6.6 Abstract = 9.8 Coded Fields = 8.8 Overall = 7.8 Text 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 characters. The following comments apply to the abstract which was evaluated as if it were a text. 50.73(b)(2)(ii)(A)--Discussion of plant operating 2. conditions before the event is not included. 50.73(b)(2)(ii)(C)--Dates and approximate times 3. information for occurrences were not included. 50.73(b)(2)(ii)(F)--The Energy Industry 4. Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included. 50.73(b)(2)(ii)(H)--The estimate of the elapsed time from the discovery of the failure of a safety system train until the train was returned to service is not included. 50.73(b)(2)(ii)(L)--Identification (e.g. manufacturer 6. and model no.) of the failed component(s) discussed in the text is not included. 50.73(b)(3)--Discussion of the assessment of the 7. safety consequences and implications of the event is not included. 50.73(b)(5)--Information concerning previous similar 8. events is not included. No comments. Abstract 1. Item (3)--Page number is incorrect. Do not count the Coded Fields 1. cover letter. Item (4)--Title: Root cause is not included. 2.

Section Comments

- 1. LER Number: 84-004-00 (continued)
  - Item (8)--Although nothing was found wrong in Unit 2, it was involved because it was inspected as a result of this report.
  - 4. Item (11)--OBSERVATION: It appears it would have been appropriate to also report this event under paragraph(s) 50.73(a)(2)(v).

Section  2. LER Number: 84-		Comments	
		-008-00	
Scores: Text	= 6.9	Abstract = 8.8 Coded Fields = 8.4 Overall = 7.6	
Text	1.	50.73(b)(2)(ii)(C)Approximate times information for occurrences is inadequate, i.e., follow-up testing.	
	2.	50.73(b)(2)(ii)(F)The Energy Industry Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included.	
	3.	50.73(b)(2)(ii)(J)(1)Discussion of operator actions that affected the course of the event is inadequate, i.e., operator actions in response to the reactor trip and safety injection.	
	4.	50.73(b)(3) Discussion of the assessment of the safety consequences and implications of the event is not included.	
	5.	A logical transition does not exist between all ideas. Some ideas are not presented clearly (hard to follow).	
Abstract	1.	50.73(b)(1)Summary of personnel responses is not included.	
Coded Fields	1.	Item (4)Title: Link and root cause are not included.	

Comments Section 3. LER Number: 84-011-00 Scores: Text = 7.4 Abstract = 10.0 Coded Fields = 8.3 Overall = 8.3 50.73(b)(2)(ii)(A)--Discussion of plant operating 1. Text conditions before the event is inadequate. The text should tell the reader up front that a test was in progress. 50.73(b)(2)(ii)(C)--Approximate time information for 2. occurrences is inadequate. 50.73(b)(2)(ii)(F)--The Energy Industry Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included. 50.73(b)(2)(ii)(H)--The estimate of the elapsed time from the discovery of the failure of a safety system train until the train was returned to service is not included. 50.73(b)(2)(ii)(I)--Discussion of the method of 5. discovery of the system failure (personnel error) is not included. 50.73(b)(2)(ii)(J)(2)(i)--Discussion as to whether the personnel error was cognitive or procedural is inadequate. 50.73(b)(3)--Discussion of the assessment of the 7. safety consequences and implications of the event is inadequate. Would the operator have known to start the other fan? 50.73(b)(5)--Information concerning previous similar 8. events is not included. 50.73(b):5)--If no previous similar events are known, 9. the text should so state.

1). A logical transition does not exist between all

follow).

ideas. Some ideas are not presented clearly (hard to

TABLE D-1. SPECIFIC LER COMMENTS FOR D.C. COOK 1 (315)

Section	Comments 84-011-00 (continued)		
3. LER Number:			
Abstract	<ol> <li>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. The abstract is well written and straight forward.</li> </ol>		
Coded Fields	1. Item (4)Title: Root cause and link are not included.		

Section		84-014-00		
4. LER Number	: 84-0			
Scores: Text	= 6.8	Abstract = 9.0 Coded Fields = 7.9 Overall = 7.6		
Text	1.	50.73(b)(2)(ii)(8)Discussion of the status of structures, components, or systems that were inoperable at the start of the event and that contributed to the event is not included.		
	2.	50.73(b)(2)(ii)(F)The Energy Industry Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included.		
	3.	50.73(b)(2)(ii)(G)A list of systems or secondary functions that were also affected by the failed multi-function component is not included.		
	4.	50.73(b)(3)Discussion of the assessment of the safety consequences and implications of the event is inadequate.		
	5.	50.73(b)(4)Discussion of corrective actions taken or planned is inadequate. A discussion of actions required to reduce the probability of recurrence (i.e, correction of the root cause) is not included or is inadequate.		
		OBSERVATION: Additional corrective actions based on the generic implications of the failure or error should have been included.		
Abstract	1.	$\frac{50.73(b)(1)}{cause(s)}$ and effects(s)] is inadequate.		
	2.	50.73(b)(1) Summary of root cause is inadequate.		
	3.	$\frac{50.73(b)(2)(ii)(J)(1)}{\text{that affected the course of the event is inadequate.}}$		
Coded Fields	1.	Item (4)Title: Root cause is not included.		
	2.	<pre>Item (4)Title: Link is not included.</pre>		
	3.	<pre>Item (13)One or more component failure sub-fields are blank.</pre>		
	4.	<pre>Item (14)Neither "Yes"/"No" block of the supplemental report field is checked.</pre>		

Section Comments 5. LER Number: 84-015-00 Scores: Text = 6.6 Abstract = 9.0 Coded Fields = 9.3 Overall = 7.6 Text 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 characters. The following comments apply to the abstract which was evaluated as if it were a text. 50.73(b)(2)(ii)(A)--Include a brief description of the operating mode number. 3. 50.73(b)(2)(ii)(F)--The Energy Industry Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included. 50.73(b)(2)(ii)(H)--The estimate of the elapsed time from the discovery of the failure of a safety system train until the train was returned to service is not included. 50.73(b)(2)(ii)(I)--Discussion of the method of discovery of the personnel error is not included. 50.73(b)(3)--Discussion of the assessment of the safety consequences and implications of the event is inadequate. Be specific as to why there were no safety implications. OBSERVATION: The availability of other systems or components capable of mitigating the consequences of the event should be discussed. If no other systems or components are available the text should so state. 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.

7. 50.73(b)(5)--Information concerning previous similar

events is not included.

TABLE D-1. SPECIFIC LER COMMENTS FOR D.C. COOK 1 (315)

Section Comments

5. <u>LER Number</u>: 84-015-00 (continued)

Abstract 1. No comments.

Coded Fields 1. <u>Item (4)</u>--Title: Root cause is not included.

Section

Comments

6. LER Number: 84-016-00

Scores: Text = 4.5 Abstract = 7.0 Coded Fields = 7.6 Overall = 5.6

Text

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 characters. The following comments apply to the abstract which was evaluated as if it were a text. The following comments apply to the abstract judged as the text.

- 2. 50.73(b)(2)(ii)(A)--Discussion of plant operating conditions before the event is inadequate.
- 50.73(b)(2)(ii)(C)--Date and approximate time information for occurrences is not included.
- 50.73(b)(2)(ii)(D)--The root and/or intermediate cause discussion for each personnel error is not included.
- 5. 50.73(b)(2)(ii)(f)--The Energy Industry
  Identification System component function
  identifier(s) and/or system name of each component or
  system referred to in the LER is not included.
- 50.73(b)(2)(ii)(I)--Discussion of the method of discovery of the personnel error/procedural error is not included.
- 7. 50.73(b)(2)(ii)(J)(2)--OBSERVATION: Personnel error is implied but is not explicitly stated in the text.
- 50.73(b)(3)--Discussion of the assessment of the safety consequences and implications of the event is not included.
- 50.73(b)(5)--Information concerning previous similar events is not included.
- 50.73(b)(5)--If no previous similar events are known, the text should so state.

Section	Comments		
6. LER Number:	84-016-00 (continued)		
	11. Some ideas are not presented clearly (hard to follow). Additional space is available within the abstract field to provide the necessary information but it was not utilized. A logical transition does not exist between all ideas.		
Abstract	<ol> <li>Some ideas are not presented clearly. A logical transition does not exist between all ideas.</li> </ol>		
Coded Fields	1. Item (4)Title: Root cause and link were not included. The effect/result was inadequate.		

Section		Comments			
7. LER Nu	ımber:	84-017-00			
Scores: T	ext = 7	.8 Abstract = 10.0 Coded Fields = 7.8 Overall = 8.5			
Text		<ol> <li>50.73(b)(2)(11)(f) The Energy Industry Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included.</li> </ol>			
		<ol> <li>50.73(b)(2)(11)(J)(2)(1)Discussion as to whether the personnel error was cognitive or procedural is not included.</li> </ol>			
		<ol> <li>50.73(b)(3) Discussion of the assessment of the safety consequences and implications of the event is not included.</li> </ol>			
		OBSERVATION: As part of the corrective actions <u>all</u> operators that can ever be responsible for operating the feedwater system should have been made aware of the details of the event.			
		4. 50.73(b)(5)Information concerning previous similar events is not included.			
		<ol> <li>50.73(b)(5)If no previous similar events are known, the text should so state.</li> </ol>			
Abstract		<ol> <li>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 characters. The following comments apply to the abstract which was evaluated as if it were a text.</li> </ol>			
Coded Fie	lds	<ol> <li>Item (4) Title: Root cause and link are not included. At a minimum, the system that actuated should have been named.</li> </ol>			

Section	84-022-00		
8. LER Number:			
Scores: Text =	7.3 Abstract = 9.1 Coded Fields = 9.3 Overall = 8.0		
Text	<ol> <li>50.73(b)(2)(ii)(D)The root and/or intermediate cause discussion for each personnel error is not included.</li> </ol>		
	<ol> <li>50.73(b)(2)(ii)(H) The estimate of the elapsed time from the discovery of the failure of a safety system train until the train was returned to service is not included.</li> </ol>		
	3. $50.73(b)(2)(ii)(J)(2)$ - OBSERVATION: Personnel error is implied but is not explicitly stated in the text.		
	4. $\frac{50.73(b)(2)(ii)(J)(2)}{is not included}$ Discussion of personnel error		
	<ol> <li>50.73(b)(2)(ii)(J)(2)(iv)Discussion of the type of personnel involved (i.e., contractor personnel, utility licensed operator, utility nonlicensed operator, other utility personnel) is not included.</li> </ol>		
	6. 50.73(b)(3)Discussion of the assessment of the safety consequences and implications of the event is inadequate. Address gaseous releases from the time the program was first used to the present.		
	<ol> <li>50.73(b)(5)If no previous similar events are known, the text should so state.</li> </ol>		
Abstract	<ol> <li>50.73(b)(1) Summary of root cause is inadequate.</li> </ol>		
	<ol> <li>50.73(b)(2)(ii)(J)(1)Discussion of operator actions that affected the course of the event is inadequate. The abstract contain greater than 1400 characters.</li> </ol>		
Coded Fields	<ol> <li>Item (4)Title: Root cause is not included.</li> </ol>		
	2. Item (4)Title: Link is not included.		
	<ol> <li>Item (12) Position title is not included.</li> </ol>		
	4. Item (13) One or more component failure sub-fields are blank.		

Comments

9. LER Number: 84-023-00

Scores: Text = 5.5 Abstract = 6.3 Coded Fields = 8.3 Overall = 8.0

Text

- 50.73(b)(2)(ii)(A)--Although the power level indicates steady-state power, it would be desirable to give a brief description of the operating mode number.
- 50.73(b)(2)(ii)(D)—The root and/or intermediate cause discussion for each system failure is inadequate. Include specific reasons why the blowdown could not be restored.
- 3.  $\frac{50.73(b)(2)(ii)(E)}{\text{implied by the text, but is not discussed.}}$
- 50.73(b)(2)(ii)(F)--The Energy Industry Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included.
- 50.73(b)(2)(ii)(H)—The estimate of the elapsed time from the discovery of the failure of a safety system train until the train was returned to service is not included.
- 6. 50.73(b)(2)(ii)(d)(1)—The discussion of the drawing of the sample does make it clear whether or not the small sample drawn was a personnel error or contrary to procedure.
- 7. 50.73(b)(3)-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.
- 8. 50.73(b)(4)--Discussion of corrective actions taken or planned is inadequate. If a component failure caused the loss of the steam generator blodown system this should be discussed. A question that comes to mind, is how future employees will be made aware of this event? In order to prevent recurrence should the contents of the letter be incorporated into the procedure or made a permanent part of the training program?

TABLE D-1. SPECIFIC LER COMMENTS FOR D.C. COOK 1 (315)

Section	Comments 84-023-00 (continued)		
9. LER Number:			
	9. 50.73(b)(5)Information concerning previous similar events is not included.		
Abstract	<ol> <li>50.73(b)(1)Summary of root cause is not included.</li> </ol>		
	2. 50.73(b)(1)Summary of plant responses is inadequate.		
Coded Fields	<ol> <li>Item (4)Title: Root cause is not included.</li> </ol>		
	<ol> <li>Item (7)OBSERVATION: Report date is not within thirty days of event date (or discovery date if appropriate).</li> </ol>		
	<ol> <li>Item (8)Field should be filled in with Not Applicable or NA.</li> </ol>		

Section		Comments
10. LER Numbe	er: 84	-024-00
Scores: Text	= 8.0	Abstract = 8.5 Coded Fields = 7.9 Overall = 8.1
Text	1.	50.73(b)(2)(ii)(C)Approximate time information for occurrences is not included.
	3.	50.73(b)(3)Discussion of the assessment of the safety consequences and implications of the event is not included.
	4.	$\frac{50.73(b)(5)}{\text{events is not included.}}$
	5.	$\frac{50.73(b)(5)}{\text{the text should so state.}}$
	2.	50.73(b)(2)(ii)(L)Identification (e.g. manufacturer and model no.) of the failed component(s) discussed in the text is not included.
Abstract	1.	50.73(b)(1)Summary of personnel responses is not included.
	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.
Coded Fields	1.	<pre>Item (8)Information in field is inconsistent with text and/or abstract.</pre>
	2.	<pre>Item (14)Neither "Yes"/"No" block of the supplemental report field is checked.</pre>
	3.	Item (4)Title: Root cause is not included (i.e., root cause was unknown therefore the title should say something to the effect of "for reasons unknown").

Comments

11. LER Number: 84-025-00

Scores: Text = 7.2 Abstract = 9.4 Coded Fields = 8.4 Overall = 8.0

Text

- 50.73(b)(2)(ii)(0)--The root and/or intermediate cause discussion for each personnel error is not included. Why were both flow and physical piping drawings incorrect? Why were the valves accidentally buried?
- 50.73(b)(2)(ii)(I)-Discussion of the method of discovery of the procedural error (personnel error) is not included. What prompted the excavation on 10-10-84?
- 50.73(b)(2)(ii)(J)(2)--OBSERVATION: Personnel error is implied but is not explicitly stated in the text.
- 4. 50.73(b)(2)(ii)(J)(2)--Discussion of personnel error is inadequate.
- 50.73(b)(2)(ii)(J)(2)(iv)--Discussion of the type of personnel involved (i.e., contractor personnel, utility licensed operator, utility nonlicensed operator, other utility personnel) is not included.
- 6. 50.73(b)(3)--Discussion of the assessment of the safety consequences and implications of the event is inadequate. How was Unit 2 actually involved?
- 7. 50.73(b)(4)--Discussion of corrective actions taken or planned is inadequate.

OBSERVATION: Additional corrective actions based on the generic implications of the failure or error should have been included.

- 50.73(b)(5) -- Information concerning previous similar events is not included.
- 50.73(b)(5)--If no previous similar events are known, the text should so state.

Comments

## 11. <u>LER Number</u>: 84-025-00 (continued)

10. A logical transition does not exist between all ideas. Some ideas are not presented clearly (hard to follow). The diagram was good but should have been more detailed. It is not clear what the effect of FP-III being closed was as the diagram does not indicate anything about the line coming into the valve from the top of the page.

Abstract

1. 50.73(b)(1) -- Summary of root cause is inadequate.

Coded Fields

- Item (4) Title: Root cause and link are not included.
- Item (8) -- Information in field is inconsistent with text and/or abstract.

Section Comments 12. LER Number: 84-030-00 Scores: Text = 3.6 Abstract = 9.4 Coded Fields = 8.3 Overall = 5.8 Text Submittal of an LER without a text is acceptable: 1. nowever, the abstract must then meet all the requirements of a text and still be less than 1400 characters. The following comments apply to the abstract which was evaluated as if it were a text. 50.73(b)(2)(ii)(0) -- The root and/or intermediate cause discussion for each system failure is not included. 50.73(b)(2)(ii)(E)--The mechanism (immediate cause) discussion of each failed component is not included. 50.73(b)(2)(ii)(F)--The Energy Industry Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included. 50.73(b)(2)(ii)(L)--Identification (e.g. manufacturer 5. and model no.) of the failed component(s) discussed in the text is not included. 50.73(b)(3)--Discussion of the assessment of the safety consequences and implications of the event is not included. 50.73(b)(4)--Discussion of corrective actions taken or planned is inadequate. OBSERVATION: Additional corrective actions based on the generic implications of the failure or error should have been included. Abstract 1. The abstract contain greater than 1400 characters. Coded Fields 1. Item (4) -- Title: Root cause is not included. Item (4) -- Title: Link is not included. 2. Item (12) -- Position title is not included. 3. Item (13) -- One or more component failure sub-fields 4. are blank.

Abstract

1.

Section Comments 13. LER Number: 84-031-00 Scores: Text = 4.1 Abstract = 7.3 Coded Fields = 8.7 Overall = 5.5 Text 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 characters. The following comments apply to the abstract which was evaluated as if it were a text. 50.73(b)(2)(ii)(C)--When did the senior operator re-initialize the computer? 50.73(b)(2)(ii)(D)--If re-initializing the computer 3. is the root cause, then the discussion does not make it clear how the 12 minute computer failure caused a 13.5 hour delay in monitoring the alarm. 4. 50.73(b)(2)(ii)(F)--The Energy Industry Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included. 5. 50.73(b)(2)(ii)(J)(2)(i)--Discussion as to whether the personnel error was cognitive or procedural is not included. 50.73(b)(2)(ii)(J)(2)(ii)--Discussion as to whether 6. 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 is not included. 7. 50.73(b)(3)--Discussion of the assessment of the safety consequences and implications of the event is not included. 8. 50.73(b)(5)--Information concerning previous similar events is not included. Some ideas are not presented clearly (hard to follow).

50.73(b)(1)--Summary of root cause is inadequate.

TABLE D-1. SPECIFIC LER COMMENTS FOR D.C. COOK 1 (315)

Section Comments

13. LER Number: 84-031-00 (continued)

Coded Fields

1. Item (4)--Title: Root cause and link were not included.

2. Item (8)--The field should be filled in with Not Applicable or NA.

Comments

14. LER Number: 84-032-00

Scores: Text = 5.4 Abstract = 9.0 Coded Fields = 8.9 Overall = 6.8

Text

- 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 characters. The following comments apply to the abstract which was evaluated as if it were a text. The following comments apply to the abstract judged as the text.
- 50.73(b)(2)(ii)(F)--The Energy Industry
   Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included.
- 3. 50.73(b)(2)(ii)(I)--Discussion of the method of discovery of the personnel error/procedural error is inadequate.
- 4. 50.73(b)(2)(ii)(J)(1)--Discussion of operator actions that affected the course of the event is not included. What were the immediate corrective actions for each event?
- 5. 50.73(b)(2)(ii)(J)(2)--OBSERVATION: Personnel error is implied but is not explicitly stated in the text.
- 6.  $\frac{50.73(b)(2)(ii)(J)(2)}{50.73(b)(2)(ii)(J)(2)}$  -- Discussion of personnel error is inadequate.
- 7. 50.73(b)(2)(ii)(J)(2)(i)--Discussion as to whether the personnel error was cognitive or procedural is inadequate.
- 8. 50.73(b)(2)(ii)(J)(2)(ii)—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 is inadequate.
- 9. 50.73(b)(2)(ii)(J)(2)(iv)--Discussion of the type of personnel involved (i.e., contractor personnel, utility licensed operator, utility nonlicented operator, other utility personnel) is inade wate.

Comments

14. LER Number: 84-032-00 (continued)

 50.73(b)(3)--Discussion of the assessment of the safety consequences and implications of the event is not included.

OBSERVATION: The availability of other systems or components capable of mitigating the consequences of the event should be discussed. If no other systems or components are available the text should so state.

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.

11. The abstract does not sufficiently meet the requirements of a text. Recommend that this LER be written to include a text since not all of the required information will fit into the abstract field and not exceed the 1400 character limit.

Abstract

- 50.73(b)(1)--Summary of personnel responses is not included, i.e., responses for each technical specification violation.
- Coded Fields 1. Item (4)--Title: Root cause is not included.

Comments Section 15. LER Number: 85-002-00 Scores: Text = 7.1 Abstract = 7.5 Coded Fields = 7.9 Overall = 7.3 50.73(b)(2)(ii)(C)--Date information for occurrences 1. Text is inadequate. When were Amendments 69 and 51 issued? 50.73(b)(2)(ii)(F)--The Energy Industry 2. Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included. 50.73(b)(2)(ii)(I)--Discussion of the method of 3. discovery of the personnel error is not included. 50.73(b)(2)(ii)(J)(2)--OBSERVATION: Personnel error 4. is implied but is not explicitly stated in the text. 50.73(b)(2)(ii)(J)(2)--Discussion of personnel error 5. is inadequate. 50.73(b)(2)(ii)(J)(2)(iv)--Discussion of the type of 6. personnel involved (i.e., contractor personnel, utility licensed operator, utility nonlicensed operator, other utility personnel) is not included. Who was responsible for identifying the new technical specification requirement? 7. 50.73(b)(3)--Discussion of the assessment of the safety consequences and implications of the event is inadequate. It appears that by the time the samples were taken the iodine levels had dropped to normal, but what could they have been earlier? 50.73(b)(5)--Information concerning previous similar 8. events is not included. 50.73(b)(5)--If no previous similar events are known. 9. the text should so state. 50.73(b)(1) -- Summary of root cause is not included. 1. Abstract Abstract does not adequately summarize the text. No 2. mention is provided as to how Unit 2 is involved.

TABLE D-1. SPECIFIC LER COMMENTS FOR D.C. COOK 1 (315)

Section Comments

15. LER Number: 85-002-00 (continued)

Coded Fields

1. Item (4)--Title: Root cause and result is not included.

2. Item (7)--Report day is not included.

Section Comments

16. LER Number: 85-003-00

Scores: Text = 6.3 Abstract = 9.0 Coded Fields = 8.6 Overall = 7.3

Text

- 1. 50.73(b)(2)(ii)(D)--The root and/or intermediate cause discussion for each system failure is inadequate.
- 2. 50.73(b)(2)(ii)(D)--The root and/or intermediate cause discussion for each component failure is not included.
- 3.  $\frac{50.73(b)(2)(ii)(E)}{each failed component is not included.}$
- 50.73(b)(2)(ii)(E) -- The mechanism (immediate cause) discussion of each failed component is not included.
- 5. 50.73(b)(2)(ii)(F)--The Energy Industry Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included.
- 6. 50.73(b)(2)(ii)(G)--A list of systems or secondary functions that were also affected by the failed multi-function component is not included.
- 7. 50.73(b)(2)(ii)(J)(2)--OBSERVATION: (ersonnel error is implied but is not explicitly stated in the text.
- 8.  $\frac{50.73(b)(2)(ii)(J)(2)}{is inadequate.}$
- 9. 50.73(b)(2)(ii)(L)--Identification (e.g. manufacturer and model no.) of the failed component(s) discussed in the text is not included.
- 10. 50.73(b)(3)--Discussion of the assessment of the safety consequences and implications of the event is not included.
- 11. 50.73(b)(4)--Discussion of corrective actions taken or planned is inadequate. A discussion of actions required to reduce the probability of recurrence (i.e, correction of the root cause) is not included or is inadequate.

Section	Comments		
16. LER Number	: 85-003-00 (continued)		
	OBSERVATION: Additional corrective actions based on the generic implications of the failure or error should have been included.		
	12. $\frac{50.73(b)(5)}{events}$ is not included.		
Abstract	1. $50.73(b)(1)$ Summary of root cause is not included.		
	<ol> <li>The abstract contain greater than 1400 characters. Abstract does not adequately summarize the text.</li> </ol>		
Coded Fields	1. Item (4)Title: Root cause is not included.		
	2. Item (4)Title: Link is not included.		
	<ol> <li>Item (13)Cause, system, and/or component code is inconsistent with text. Personnel error of the SRQ is a factor in this LER and not acknowledged.</li> </ol>		

Section		Comments		
17. LER Number	: 85-	85-006-00		
Scores: Text =	8.6	Abstract = 6.9 Coded Fields = 9.3 Overall = 8.2		
Text	1.	50.73(b)(2)(ii)(A)Include a brief description of operating mode numbers.		
	3.	50.73(b)(2)(ii)(J)(2)(iv)Discussion of the type of personnel involved (i.e., contractor personnel, utility licensed operator, utility nonlicensed operator, other utility personnel) is not included.		
	2.	$\frac{50.73(b)(2)(ii)(D)}{0}$ More details should be included on the ventilation system malfunction.		
	4.	50.73(b)(4)As noted in Comment 2 above, a ventilation system malfunction caused the problem. The corrective actions should address how future malfunctions will be handled to prevent future actuations of the damper. If this is not considered a problem, at least, state this, so that the reader knows that the problem was addressed.		
	5.	$\frac{50.73(b)(5)}{events}$ is not included.		
Abstract	1.	50.73(b)(1)Summary of root cause is inadequate. The abstract fails to summarize the ventilation system malfunction.		
	2.	50.73(b)(2)(ii)(J)(1)Discussion of operator actions that affected the course of the event is inadequate. Corrective actions such as posting a fire watch and repairing and resetting the damper were not included.		
Coded Fields	1.	Item (4)Title: Root cause is not included.		

Section		Comments		
18. LER Number	: 85-	-013-00		
Scores: Text =	8.2	Abstract = 10.0 Coued Fields = 8.9 Overall = 8.8		
Text	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 characters. The following comments apply to the abstract which was evaluated as if it were a text.		
	2.	50.73(b)(2)(ii)(I)Discussion of the method of discovery of the personnel error is not included.		
	3.	50.73(b)(3)Discussion of the assessment of the safety consequences and implications of the event is inadequate.		
	4.	$\frac{50.73(b)(5)}{events}$ is not included.		
	5.	50.73(b)(5)If no previous similar events are known, the text should so state. Additional space is available within the abstract field to provide the necessary information but it was not utilized.		
Abstract	1.	No comments.		
Coded Fields	1.	<pre>Item (4)Title: Root cause is not included.</pre>		

Section		Comments	
19. LER Number:	85-016-00		
Scores: Text =	.O Abs	tract = 8.5 Coded Fields = 7.8 Overall = 7.5	
Text	cause	3(b)(2)(11)(D)The root and/or intermediate e discussion for each personnel error is not uded.	
	2. <u>50.7</u>	3(b)(2)(11)(J)(2)Discussion of personnel error of included.	
	the	3(b)(2)(11)(J)(2)(1)Discussion as to whether personnel error was cognitive or procedural is included.	
	safe inad imme	3(b)(3)Discussion of the assessment of the ty consequences and implications of the event is lequate. How would the operator have known to diately close the valves if the potential dent was not recognized?	
	5. <u>50.7</u> or p	(3(b)(4)Discussion of corrective actions taken blanned is inadequate.	
	the	RVATION: Additional corrective actions based on generic implications of the failure or error ald have been included.	
	6. <u>50.7</u> ever	73(b)(5)—Information concerning previous similar nts is not included.	
	7. <u>50.</u> the	73(b)(5)If no previous similar events are known, text should so state.	
Abstract	1. 50.	73(b)(1) Summary of root cause is not included.	
Coded Fields	1. Ite	m (4)Title: Root cause and link are not luded.	

Comments Section 20. LER Number: 85-019-00 Scores: Text = 2.8 Abstract = 3.4 Coded Fields = 5.8 Overall = 3.3 50.73(b)(2)(ii)(B)--Discussion of the status of 1. Text structures, components, or systems that were inoperable at the start of the event and that contributed to the event is not included. 50.73(b)(2)(ii)(D)--The root and/or intermediate 2. cause discussion for each component failure is not included. 50.73(b)(2)(ii)(D)--The root and/or intermediate 3. cause discussion for each system failure is not included. 50.73(b)(2)(ii)(D)--The root and/or intermediate cause discussion for each personnel error is not included. 50.73(b)(2)(ii)(E)--The mechanism (immediate cause) 5. discussion of each failed component is not included. 50.73(b)(2)(ii)(F)--The Energy Industry 6. Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included. 50.73(b)(2)(ii)(H) -- The estimate of the elapsed time 7. from the discovery of the failure of a safety system train until the train was returned to service is not included. 50.73(b)(2)(ii)(1)--Discussion of the method of 8. discovery of the component failure is not included. 50.73(b)(2)(ii)(I)--Discussion of the method of 9. discovery of the system failure is not included. 10. 50.73(b)(2)(ii)(I)--Discussion of the method of discovery of the personnel error is not included. 11. 50.73(b)(2)(ii)(J)(2)--Discussion of personnel error

is not included.

Comments Section 20. LER Number: 85-019-00 (continued) 12. 50.73(b)(3)--Discussion of the assessment of the safety consequences and implications of the event is not included. A discussion of actions required to reduce the probability of recurrence (i.e, correction of the root cause) is not included or 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. 50.73(b)(1)--Summary of occurrences [immediate Abstract cause(s) and effects(s)] is inadequate. 50.73(b)(1)--Summary of root cause is not included. 2. 50.73(b)(2)(ii)(J)(1)--Discussion of operator actions 3. that affected the course of the event is inadequate. The abstract contain greater than 1400 characters. Submittal of an LER without a text is acceptable; 4. however, the abstract must then meet all the requirements of a text and still be less than 1400 characters. The following comments apply to the abstract which was evaluated as if it were a text. Item (4) -- Title: Root cause is not included. Coded Fields 1. Item (4)--Title: Result (effect) is not included. 2. Item (4)--Title: Link is not included. 3. Item (11) -- OBSERVATION: It appears it would have 4. been more appropriate to report this event under paragraph(s) 50.73(a)(2)(v). Item (13) -- Cause, system, and/or component code is 5. inconsistent with text. Item (8) -- Information in field is inconsistent with

text and/or abstract.

Section	Comments		
21. LER Number:	85-020-00		
	7.9 Abstract = 8.6 Coded Fields = 9.2 Overall = 8.2		
Text	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 characters. The following comments apply to the abstract which was evaluated as if it were a text.		
	<ol> <li>50.73(b)(2)(ii)(1)Discussion of the method of discovery of the personnel error and system failure were not included.</li> </ol>		
	3. 50.73(b)(3)OBSERVATION: The availability of other systems or components capable of mitigating the consequences of the event should be discussed. If no other systems or components are available the text should so state.		
	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.		
	<ol> <li>50.73(b)(4)Text should include a discussion of long term corrective action to prevent recurrence (e.g., additional emphasis in training program).</li> </ol>		
Abstract	1. No comments.		
Coded Fielas	1. Item (4)Title: Root cause is not included.		
	2. Item (8)The field should be filled in with Not Applicable or NA.		

Comments Section 22. LER Number: 85-021-00 Scores: Text = 3.8 Abstract = 6.5 Coded Fields = 8.9 Overall = 5.1 Submittal of an LER without a text is acceptable; 1. however, the abstract must then meet all the Text requirements of a text and still be less than 1400 characters. The following comments apply to the abstract which was evaluated as if it were a text. 50.73(b)(2)(ii)(C)--Approximate time information for occurrences is inadequate, i.e., what time was the dilution discovered by the NRC resident inspector. 50.73(b)(2)(ii)(D)--The root and/or intermediate 3. cause discussion for each personnel error is not included. 50.73(b)(2)(ii)(F)--The Energy Industry 4. Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included. 50.73(b)(2)(ii)(I)--Discussion of the method of 5. discovery of the personnel error is not included. 50.73(b)(2)(ii)(J)(1)--Discussion of operator actions 6. that affected the course of the event is not included. What immediate actions were taken after the discovery of the dilutions? 50.73(b)(2)(ii)(J)(2)--OBSERVATION: Personnel error is implied but is not explicitly stated in the text. 50.73(b)(2)(ii)(J)(2)--Discussion of personnel error 8. is inadequate. 50.73(b)(2)(ii)(J)(2)(i)--Discussion as to whether 9. the personnel error was cognitive or procedural is not included. 10. 50.73(b)(3)--Discussion of the assessment of the safety consequences and implications of the event is

inadequate.

Comments Section 22. LER Number: 85-021-00 (continued) 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. 11. 50.73(b)(4)--Discussion of corrective actions taken or planned is inadequate. 12. A discussion of actions required to correct the problem (e.g., return the component or system to an operational state or correct the personnel error) is not included or is inadequate. 13. 50.73(b)(5)--Information concerning previous similar events is not included. 14. 50.73(b)(5)--If no previous similar events are known, the text should so state. 50.73(b)(1)--Summary of occurrences [immediate cause(s) and effects(s)] is inadequate, i.e., the 1. Abstract actual effect of the dilution was not included. 50.73(b)(1)--Summary of root cause is inadequate. 2. 50.73(b)(1)--Summary of plant response is not included. The resultant dilution in the reactor 3. coolant system was not included. 50.73(b)(2)(ii)(J)(1)--Discussion of operator actions that affected the course of the event is inadequate. 4. Item (4) -- Title: Root cause is not included. 1. Coded Fields

Comments Section 23. LER Number: 85-022-00 Abstract = 8.5 Coded Fields = 7.8 Overall = 8.1 Scores: Text = 8.0 50.73(b)(2)(ii)(D)--Not enough discussion was 1. provided to allow the reader not familiar with the Text system to understand precisely how the setting of the fixed background subtract count rate affects the high level alarm point. 50.73(b)(2)(ii)(J)(2)(i)--Discussion as to whether 2. the personnel error was cognitive or procedural is inadequate. 50.73(b)(2)(ii)(J)(2)(ii)--Discussion as to whether 3. 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 is not included. Even though the radiation monitor didn't fail, 4. information involving manufacturer and model number would be helpful to others that may have the same equipment but are unaware that they should set the background valve more frequently in certain situations. Information concerning how the corrective action is 5. to be implemented (e.g., procedure change) should be provided. Was Unit 1 informed of the 4-11-85 event at Unit 2 6. (84-007-00) at the time of that event? Submittal of an LER without a text is acceptable; 7. however, the abstract must then meet all the requirements of a text and still be less than 1400 characters. The following comments apply to the abstract which was evaluated as if it were a text. 50.73(b)(1) -- Summary of root cause is inadequate. 1. Abstract 50.73(b)(2)(ii)(J)(1)--Discussion of operator actions 2. that affected the course of the event is inadequate. Item (4) -- Title: Root cause and link are not 1. Coded Fields included.

Section	Comments
24. LER Number:	84-025-00
Scores: Text =	6.4 Abstract = 7.0 Coded Fields = 8.4 Overall = 6.8
Text	1. $\frac{50.73(b)(2)(ii)(A)}{conditions}$ before the event is not included.
	<ol> <li>50.73(b)(2)(ii)(D) The root and/or intermediate cause discussion for each component failure is not included.</li> </ol>
	3. $\frac{50.73(b)(2)(ii)(E)}{each failed component is not included.}$
	4. $\frac{50.73(b)(4)}{or planned is inadequate.}$ Corrective actions taken valve were not addressed.
	5. A discussion of actions required to reduce the probability of recurrence (i.e, correction of the root cause) is not included or is inadequate. This statement applies to both the personnel (lack of) and valve problem.
	6. $\frac{50.73(b)(5)}{\text{events is not included.}}$
	7. $\frac{50.73(b)(5)}{\text{the text should so state.}}$
	8. 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 characters. The following comments apply to the abstract which was evaluated as if it were a text.
Abstract	<ol> <li>50.73(b)(1)Summary of personnel responses is inadequate.</li> </ol>
	2. $\frac{50.73(b)(2)(ii)(J)(1)}{b}$ Discussion of operator actions that affected the course of the event is inadequate.
	3. 50.73(b)(1) Summary of root cause is inadequate.

TABLE D-1. SPECIFIC LER COMMENTS FOR D.C. COOK 1 (315)

Section

Comments

24. LER Number: 84-025-00 (continued)

Coded Fields

1. Item (4)--Title: Root cause is not included.

2. Item (7)--OBSERVATION: Report date is not within thirty days of event date (or discovery date if appropriate).

Comments Section 1. LER Number: 84-011-00 Abstract = 7.0 Coded Fields = 8.4 Overall = 6.4 Scores: Text = 5.7 50.73(b)(2)(11)(A) -- Include a brief description of Text 1. the operating mode number. 50.73(b)(2)(i1)(D)--The software problem seems to be 2. addressed adequately, but there appears to be a personnel error (failure to retain clock back to real time) which was not discussed. 50.73(b)(2)(ii)(I)--The method of discovery was not 3. included. 50.73(b)92)(11)(J)(2)--As mentioned in Comment 2 4. above, a personnel error appears to have been committed but was not discussed. 50.73(b)(3) -- Discussion of the assessment of the 5. safety consequences and implications of the event is not included. 50.73(b)(f) -- The change to the procedures is 6. appropriate, but furtehr indicates a need for a better discussion of a personnel error as indicated in comments 2 and 4. 50.73(b)(5)--Information concerning previous similar 7. events is not included. 50.73(b)(1)--Repeating the reporting requirement in Abstract 1. the abstract is a waste of limited space, especially in this case, since the information is not in the text. The abstract is intended to be a summary of the text and, therefore, should contain no new data not in the text. 50.73(b)(1) -- The corrective actions summary addresses 2. the personnel error, but fails to summarize the software corrective actions. On the other hand the root cause summary addresses the software problem but not the personnel error. Item (4) -- Title: Root cause and link are not 1. Coded Fields included.

Section Comments

- 1. LER Number: 84-011-00 (continued)
  - Item (8)--The field should be filled in with Not Applicable or NA.
  - 3. Item (13)--Component failure field contains data when no component failure occurred. The monitor was faulted, but did not fail, so this field need not have been filled in.

Section	(0,00000)	Comments			
2. LER Number	: 84-0	84-012-00			
Scores: Text	= 7.3	Abstract = 7.0 Coded Fields = 8.9 Overall = 7.4			
Text	1.	$\frac{50.73(b)(2)(ii)(A)}{conditions}$ before the event is inadequate (i.e., more description needed).			
	2.	50.73(b)(2)(ii)(F)—The Energy Industry Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included.			
	3.	50.73(b)(2)(ii)(J)(1)Discussion of operator actions that affected the course of the event is inadequate. What was operator response after safety injection initiation?			
	4.	50.73(b)(3)Discussion of the assessment of the safety consequences and implications of the event is not included.			
	5.	50.73(b)(4)Discussion of corrective actions taken or planned is inadequate, i.e., immediate corrective actions after safety injection initiation.			
Abstract	1.	50.73(b)(1)Summary of personnel responses is not included.			
	2.	50.73(b)(1)Summary of root cause is not included.			
Coded Fields	1.	Item (4)Title: Root cause is not included.			

Comments Section 3. LEW Number: 84-015-00 Scores: lext = 7.1 Abstract = 8.5 Coded Fields = 9.4 Overall = 7.8 50.73(b)(2)(ii)(D)--The root and/or intermediate 1. Text couse discussion for each personnel error is \*nadequate. A discussion of the "inadequate "allowup" would make the root cause more understandable. 50.73(b)(2)(i4)(F) -- The Energy Industry 2. Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included. 50.73(b)(2)(ii)(1)--Discussion of the method of 3. discovery of the personnel error is not included. 50.73(b)(2)(ii)(J)(1) - Discussion of operator actions 4. that affected the course of the event is inadequate. 50.73(b)(2)(ii)(J)(2)--Discussion of personnel error 5. is inadequate. 50.73(b)(2)(ii)(3)(2)(i)--Discussion as to whether 6. the personnel error was cognitive or procedural is not included. 50.73(b)(3)--Discussion of the assessment of the 7. safety consequences and implications of the event is inadequate. What if the error had not been caught as quick as it was? Without knowing the method of discovery the reader doesn't have a feel for how long the error may have gone undetected. Submittal of an LER without a text is acceptable; 8. however, the abstract must then meet all the requirements of a text and still be less than 1400 characters. The following comments apply to the abstract which was evaluated as if it were a text. 50.73(b)(1) -- Summary of root cause is inadequate. Abstract 1. 50.73(b)(1)--Summary of personnel responses is 2. inadequate. 1. Item (4)--Title: Root cause is not included. Coded Fields

Comments Section 4. LER Number: 84-016-00 Scores: Text = 6.0 Abstract = 6.0 Coded Fields = 6.3 Overall = 6.0 50.73(b)(2)(ii)(E) -- The mechanism (immediate cause) 1. Text discussion of each failed component is not included. 50.73(b)(2)(ii)(E)--The effect (consequence) 2. discussion of each failed component is not included. 50.73(b)(2)(ii)(F) -- The Energy Industry 3. Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included. 50.73(b)(2)(ii)(G)--A list of systems or secondary 4. functions that were also affected by the failed multi-function component is not included. 50.73(b)(2)(ii)(J)(2)--OBSERVATION: Personnel error 5. is implied but is not explicitly stated in the text. 50.73(b)(2)(ii)(J)(2)--Discussion of personnel error 6. is inadequate. 50.73(b)(2)(ii)(L)--identification (e.g. manufacturer and model no.) of the failed component(s) discussed in the text is not included. 50.73(b)(3) -- Discussion of the assessment of the safety consequences and implications of the event is not included. OBSERVATION: The availability of other systems or components capable of mitigating the consequences of the event should be discussed. If no other systems or components are available the text should so state. 50.73(b)(4) -- Discussion of corrective actions taken 9. or planned is inadequate. A discussion of actions required to reduce the probability of recurrence (i.e. correction of the root cause) is not included or is inadequate.

Section	Comments		
4. LER Number:	84-016-00 (continued)		
	OBSERVATION: Additional corrective actions based on the generic implications of the failure or error should have been included.		
Abstract	1. $\frac{50.73(b)(1)}{cause(s)}$ and effects(s)] is inadequate.		
	2. 50.73(b)(1)Summary of root cause is not included.		
	<ol> <li>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	1. Item (4)Title: Root cause is not included.		
	2. Item (4)Title: Link is not included.		
	<ol> <li>Item (9)Mode is not included.</li> </ol>		
	4. Item (10) Power level is incorrect.		
	<ol> <li>Item (13)Component failure occurred but entire field is blank.</li> </ol>		

Comments Section 5. LER Number: 84-017-00 Scores: Text = 5.4 Abstract = 8.6 Coded Fields = 8.7 Overall = 6.7 Submittal of an LER without a text is acceptable; Text however, the abstract must then meet all the requirements of a text and still be less than 1400 characters. The following comments apply to the abstract which was evaluated as if it were a text. 50.73(b)(2)(ii)(C)--Additional dates and times are 2. needed (e.g., when were the surveillances started again and when were the procedures changed?). 50.73(b)(2)(ii)(F)--The Energy Industry 3. Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included. 50.73(b)(2)(ii)(J)--Be more specific as to how the 4. error was discovered. 50.73(b)(2)(ii)(J)(2)(iv)--Discussion of the type of 5. personnel involved (i.e., contractor personnel, utility licensed operator, utility nonlicensed operator, other utility personnel) is not included. 50.73(b)(3) -- Discussion of the assessment of the 6. safety consequences and implications of the event is not included. 50.73(b)(4) -- The text should indicate whether or not 7. the surveillance was begun upon discovery of the error. 50.73(b)(5)--Information concerning previous similar 8. events is not included. No comments. 1. Abstract Item (4)--Title: Root cause is not included. 1. Coded Fields Item (8) -- The field should be filled in with Not 2. Applicable or NA.

TABLE D-2. SPECIFIC LER COMMENTS FOR D.C. COOK 2 (316)

Section	Comments		
6. LER Number	: 84-0	018-00	
Scores: Text	= 6.8	Abstract = 7.5 Coded Fields = 8.4 Overall = 7.2	
Text	1.	50.73(b)(2)(11)(F)—The Energy Industry Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included.	
	2.	50.73(b)(3)Discussion of the assessment of the safety consequences and implications of the event is not included.	
	3.	50.73(b)(5)—Information concerning previous similar events is not included.	
	4.	50.73(b)(5)If no previous similar events are known, the text should so state.	
Abstract	1.	50.73(b)(1) Summary of Root cause is not included.	
Coded Fields	1.	<pre>Item (4)Title: Root cause and link are not included.</pre>	

Comments Section 7. LER Number: 84-019-00 Abstract = 10.0 Coded Fields = 8.3 Overall = 8.1 Scores: Text = 7.1 Submittal of an LER without a text is acceptable; Text 1. however, the abstract must then meet all the requirements of a text and still be less than 1400 characters. The following comments apply to the abstract which was evaluated as if it were a text. 50.73(b)(2)(11)(F) -- The Energy Industry 2. Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included. 50.73(b)(2)(11)(I)-Discussion of the method of 3. discovery of the personnel error is not included. 50.73(b)(2)(ii)(3)(2)(iv)--Discussion of the type of personnel involved (i.e., contractor personnel, utility licensed operator, utility nonlicensed operator, other utility personnel) is not included. 50.73(b)(3)--Discussion of the assessment of the 5. safety consequences and implications of the event is not included. 50.73(b)(5)--Information concerning previous similar 6. events is not included. 50.73(b)(5)--If no previous similar events are known, 7. the text should so state. Was the "pump problem" in the first paragraph 8. reportable? If so, a reference to the LER number would be appropriate. No comments. Abstract 1. Item (4) -- Title: Root cause and result (T.S. Coded Fields 1. violation) are not included.



Section		84-021-00		
8. LER Number:	84-0			
Scores: Text	6.4	Abstract = 9.6 Coded Fields = 7.9 Overall = 7.5		
Text	1.	50.73(b)(2)(ii)(C)Approximate time information for occurrences is inadequate.		
	2.	50.73(b)(2)(ii)(D)The root and/or intermediate cause discussion for each personnel error is inadequate.		
	3.	50.73(b)(2)(ii)(F)The Energy Industry Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included.		
	4.	$\frac{50.73(b)(2)(ii)(J)(2)}{50.73(b)(2)(ii)(J)(2)}$ -OBSERVATION: Personnel error is implied but is not explicitly stated in the text.		
	5.	50.73(b)(2)(ii)(J)(2)Discussion of personnel error is not included.		
	6.	$\frac{50.73(b)(3)}{\text{safety consequences}}$ and implications of the event is inadequate.		
	7.	50.73(b)(4)Discussion of corrective actions taken or planned is inadequate.		
		OBSERVATION: Corrective actions planned (Taken?) assume the Unit 1 Tech. Spec. to be correct! This assumption may be erroneous-but-one of the Tech. Spec's. is in error.		
Abstract	1.	50.73(b)(1) Summary of root cause is inadequate.		
Coded Fields	1.	<pre>Item (4)Title: Root cause is not included.</pre>		
	2.	<pre>Item (4)Title: Link is not included.</pre>		
	3.	<pre>Item (12)Position title is not included.</pre>		

Section	F 1847	Comments		
9. LER Number:	84-0	84-027-00		
Scores: Text	7.6	Abstract = 8.9 Coded Fields = 9.2 Overall = 8.2		
Text	1.	50.73(b)(2)(ii)(F)The Energy Industry Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included.		
	2.	50.73(b)(2)(ii)(J)(2)(i)The text does not make it clear whether or not the fire watch personnel were cognitive of the required procedure.		
	3.	50.73(b)(3)Discussion of the assessment of the safety consequences and implications of the event is inadequate. The text should indicate the safety consequences of having to manually actuate the system, and should indicate whether or not other systems were available to suppress a fire.		
	4.	50.73(b)(4)A discussion of actions required to reduce the probability of recurrence (i.e, correction of the root cause) is not included or is inadequate. How will the new or future contractors be informed of this requirement?		
Abstract	1.	50.73(b)(1)The corrective actions summary is deficient for the same reasons, that the text corrective actions are deficient.		
Coded Fields	1.	<pre>Item (4)Title: Root cause is not included.</pre>		
	2.	Item (8)The field should be filled in with Not Applicable or NA.		

TABLE D-2. SPECIFIC LER COMMENTS FOR D.C. COOK 2 (316)

Section	Comments : 84-028-00		
10. LER Number			
Scores: Text =	.0 Abstract = 7.5 Coded Fields = 8.9 Overall = 6.		
Text	<ol> <li>50.73(b)(2)(ii)(0)The root and/or intermediate cause discussion for each personnel error is not included (i.e., input assumptions error).</li> </ol>		
	2. $\frac{50.73(b)(2)(ii)(J)(2)}{is implied but is not explicitly stated in the text.}$		
	3. $50.73(b)(2)(ii)(J)(2)$ Discussion of personnel error is not included.		
	4. $\frac{50.73(b)(3)}{safety}$ consequences and implications of the event is not included.		
	5. $\frac{50.73(b)(5)}{\text{events is not included.}}$		
	6. 50.73(b)(5)If no previous similar events are known the text should so state. All LER's are required to stand alone. Information in referenced documents should be accompanied with a brief description of what that document contains as applicable to the LE		
Abstract	1. $\underline{50.73(b)(1)}$ Summary of root cause is not included.		
Coded Fields	1. Item (4)Title: Root cause is not included.		

Section	Comments		
11. <u>LER Number</u> : 84-030-00			
Scores: Text	= 7.0 Abstract = 9.0 Coded Fields = 7.8 Overall = 7.7		
Text	<ol> <li>50.73(b)(2)(11)(K) Discussion of automatic and/or manual safety system responses is inadequate.</li> </ol>		
	<ol> <li>50.73(b)(3) Discussion of the assessment of the safety consequences and implications of the event is inadequate.</li> </ol>		
	<ol> <li>50.73(b)(5) Information concerning previous similar events is not included.</li> </ol>		
	<ol> <li>50.73(b)(5)If no previous similar events are known, the text should so state.</li> </ol>		
	5. What are the root cause and corrective actions for the steam leak discussed in paragraph 4?		
	<ol> <li>Based on the fact that the root cause could not be determined, it is reasonable not to plan a further investigation. Increased monitoring of the equipment in question may be appropriate, however.</li> </ol>		
Abstract	<ol> <li>50.73(b)(1) Summary of system responses after the scram is inadequate.</li> </ol>		
Coded Fields	<ol> <li>Item (4)Title: Root cause and link are not included.</li> </ol>		

Section	Comments		
12. LER Number	: 84-	032-00	
Scores: Text =	7.4	Abstract = 8.9 Coded Fields = 8.2 Overall = 7.9	
Text	١.	50.73(b)(2)(ii)(F)The Energy Industry Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included.	
	2.	50.73(b)(2)(ii)(J)(2)OBSERVATION: Personnel error is implied but is not explicitly stated in the text.	
	3.	50.73(b)(2)(ii)(J)(2)Discussion of personnel error is inadequate.	
	4.	50.73(b)(2)(ii)(J)(2)(i)Discussion as to whether the personnel error was cognitive or procedural is inadequate.	
	5.	50.73(b)(3)Discussion of the assessment of the safety consequences and implications of the event is not included.	
	6.	50.73(b)(5)Information concerning previous similar events is not included.	
Abstract	1.	50.73(b)(1)Summary of occurrences [immediate cause(s) and effects(s)] is inadequate.	
	2.	50.73(b)(1) Surmary of root cause is inadequate.	
Coded Fields	1.	<pre>Item (4)Title: Root cause is not included.</pre>	
	2.	Item (4)Title: Link is not included.	

Comments Section 13. LER Number: 84-033-00 Scores: Text = 6.6 Abstract = 9.0 Coded Fields = 9.9 Overall = 7.7 50.73(b)(2)(ii)(D)--The root and/or intermediate 1. Text cause discussion for each system failure is inadequate. The text should include a discussion on how the bag got into the system. 50.73(b)(2)(ii)(F)--The Energy Industry 2. Identification System component function identifier for each component referred to in the text was not included. 3. 50.73(b)(3)--Discussion of the assessment of the safety consequences and implications of the event is inadequate. OBSERVATION: The availability of other systems or components capable of mitigating the consequences of the event should be discussed. If no other systems or components are available the text should so state. 50.73(b)(4) -- Without knowing how the bag got into the system (see text Comment 1) the corrective actions planned will only catch a plugged vent after it happens, but will not prevent it. 50.73(b)(5)--Information concerning previous similar 5. events is not included. 50.73(b)(1) -- The abstract is a good summary of the 1. Abstract text, but the root cause and corrective actions summary are deficient because the text was deficient in these areas. Item (8) -- The field should be filled in with Not Coded Fields 1. Applicable or NA.

Sect	ion	Comments	
14. LER	14. LER Number: 84-034-00		
Scores:	Text = 5.6	Abstract = 7.5 Coded Fields = 8.4 Overall = 6.5	
Text	1.	50.73(b)(2)(ii)(D)The root and/or intermediate cause discussion for each component failure is not included (i.e., RTD bypass valve).	
	2.	50.73(b)(2)(ii)(F)The Energy Industry Identification System component function identifier(s) and/or system name of each component or system referred to in the LER is not included.	
	3.	$\frac{50.73(b)(2)(ii)(I)}{discovery of the component failure is not included.}$	
	4.	50.73(b)(2)(ii)(J)(1) Discussion of operator actions that affected the course of the event is inadequate, more description needed.	
	5.	50.73(b)(2)(ii)(K)Discussion of automatic and/or manual safety system responses is inadequate, more description needed.	
	6.	50.73(b)(2)(ii)(L)Identification (e.g. manufacturer and model no.) of the failed component(s) discussed in the text is not included.	
	7.	50.73(b)(3)Discussion of the assessment of the safety consequences and implications of the event is not included.	
Abstract	1.	50.73(b)(1) Summary of root cause is not included.	
Coded Fi	elds 1.	<pre>Item (4)Title: Root cause is not included.</pre>	
	2.	<pre>Item (13)One or more component failure sub-fields are blank.</pre>	

Section		Comments		
15. <u>LER Number</u> : 85-003-00				
Scores: Text	7.6 Abs	tract = 8.5 Co	oded Fields = 7.7	Overall = 7.9
Text	1. 50.7 char	73(b)(2)(11)(C)	then will the inver	ter design
	from	n the discovery of	The estimate of the fithe failure of a mas returned to s	safety system
	3. <u>50.</u> man	13(b)(2)(11)(K) ual safety system	Discussion of autom responses is inade	natic and/or equate.
	and	73(b)(2)(11)(L) model no.) of th the text is not 1	Identification (e.g e failed component( ncluded.	, manufacturer s) discussed
	saf	73(b)(3)Discuss ety consequences included.	ion of the assessme and implications of	ent of the the event is
Abstract	1. <u>50.</u> scr	73(b)(1)Summary am) is not includ	of system response	es (to the
Coded Fields		m (4)Title: Ro luded.	ot cause and link a	are not
	2. <u>Ite</u>	m (13) Component 1d is blank, (tri	failure occurred to and throttle value	out entire

Section	Comments
16. LER Number	: 85-009-00
Scores: Text	9.3 Abstract = 9.8 Coded Fields = 8.1 Overall = 9.3
Text	<ol> <li>50.73(b)(2)(ii)(A)Discussion of plant operating conditions before the event is not include.</li> </ol>
	<ol> <li>50.73(b)(2)(ii)(J)(2)(i)Discussion as to whether the personnel error was cognitive or procedural is not included.</li> </ol>
	3. 50.73(b)(2)(ii)(J)(2)(ii)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 is not included.
	4. Item (8)Information in field is inconsistent with text and/or abstract.
Abstract	
Codea Fields	<ol> <li>Item (4)Title: Root cause is not included.</li> </ol>
	2. Item (4)Title: Link is not included.

Comments Section 17. LER Number: 85-010-00 Abstract = 8.4 Coded Fields = 8.8 Overall = 7.1 Scores: Text = 6.1 Submittal of an LER without a text is acceptable; 1. Text however, the abstract must then meet all the requirements of a text and still be less than 1400 characters. The following comments apply to the abstract which was evaluated as if it were a text. 50.73(b)(2)(ii)(F)--The Energy Industry 2. Identification System identifier for each system referred to in the text was not included. 50.73(b)(2)(ii)(I)--Discussion of the method of 3. discovery of the personnel error is not included. 50.73(b)(2)(ii)(J)(2)(i)--Discussion as to whether 4. the personnel error was cognitive or procedural is not included. 50.73(b)(3)--Discussion of the assessment of the 5. 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. 50.73(b)(4)--Discussion of corrective actions taken 6. or planned is inadequate. The discussion should address long term corrective actions (e.g., will training method or procedures be changed to emphasize these points to future employees?). 50.73(b)(5)--Information concerning previous similar 7. events is not included. 1. No comments. Abstract Item (4) -- Title: Root cause is not included. Coded Fields 1. Item (8) -- Field should be filled in with Not 2. Applicable or NA.

Comments Section 18. LER Number: 85-011-00 Abstract = 7.2 Coded Fields = 8.3 Overall = 6.6 Scores: Text = 6.0 Submittal of an LER without a text is acceptable; however, the abstract must then meet all the 1. Text requirements of a text and still be less than 1400 characters. The following comments apply to the abstract which was evaluated as if it were a text. The following comments apply to the abstract judged as a text. 50.73(b)(2)(11)(D) -- The root and/or intermediate cause discussion for each component failure is not 2. included, i.e., loose vent plug. 50.73(b)(2)(11)(J)(1)--Discussion of operator actions that affected the course of the event is inadequate. 3. What actions were taken after the vent plug was found loose? 50.73(b)(3) -- Discussion of the assessment of the safety consequences and implications of the event is not included. 50.73(b)(4) -- Discussion of corrective actions taken or planned is inadequate (i.e., corrective actions 5. for loose vent plug). 50.73(b)(T) -- Summary of occurrences [immediate cause(s) and effects(s)) is inadequate. 1. Abstract 50.73(b)(1)--Summary of personnel responses is 2. inadequate. 50.73(b)(1) -- Summary of root cause is not included. 3. 50.73(b)(2)(11)(3)(1)--Discussion of operator actions that affected the course of the event is inadequate. 4. Item (4) -- Title: Root cause and link are not Coded Fields included.