

UNITED STATES GOVERNMENT

Memorandum  
RAS 5985 50-390-CIVP, et. al. Licensee Exhibit 128 - Rec'd 9/9/02

TENNESSEE VALLEY AUTHORITY

TO : T. W. Overlid, Manager, Nuclear Experience Review Group, LP 5N 157B-C  
FROM : J. D. Smith, Supervisor, Nuclear Experience Review Group, O&PS-4, Sequoyah Nuclear Plant  
DATE : 10/26/89  
SUBJECT: SEQUOYAH NUCLEAR PLANT (SQN) - NUCLEAR EXPERIENCE REVIEW (NER) -  
INPO OER 89-3491(OER) Faulty Chemistry Sampling  
TECHNIQUE.

Attached you will find the following completed NER attachments with any attached recommendations, if applicable.

N/A DNSL-DVP-6.1.2/RO, Attachment 2 (~~None~~)

Additional Comments:

Reference LER 50-327/89025  
CAQR SQP 890457

See attached procedures for final closure.

This information is being transmitted for your records and for updating the database if appropriate.

Please close this item for SQN.

*[Signature]*  
J. D. Smith  
**RECEIVED**  
OCT 30 1989  
Nuclear Experience Review Staff

JDS  
Attachment  
cc (Attachment):

NER File, O&PS-4, SQN (w/o attachment)

cc: Wayne Hamby, MOW-TRIO, SNP: Please assume that  
2011h TI-16 & SI-116 are properly annotated when  
the ICF are incorporated into the permanent  
Instruction.

TVA Exh. 128

FI000076



Template = SECY-028

CLEAR REGULATORY COMMISSION

Case No. 01-791-01 Official Est. No. TVA 128

In the matter of TVA

Staff \_\_\_\_\_ IDENTIFIED

Applicant \_\_\_\_\_ RECEIVED

Intervenor \_\_\_\_\_ REJECTED \_\_\_\_\_

Other \_\_\_\_\_ WITHDRAWN \_\_\_\_\_

DATE 9-9-02 Witness Burzynski

Clerk R. Davis

DOCKETED  
USNRC

2003 MAR 11 AM 9:00

OFFICE OF THE SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

RECEIVED  
OCT 16 1989

SONP  
NER IMPLEMENTATION FORM

6122  
FROM : G.L. FISHER, Chemistry, OF/5-4  
DATE : 9/23/89  
SUBJECT: NUCLEAR EXPERIENCE REVIEW (NER) GROUP: OF/PS-4, SONP.  
NER DATA BASE NUMBER NR 2890654001  
ITEM SUBJECT: Implementation Due Date 10/13/89 TROI SEQUENCE Seq 05

Attached are recommendations for the disposition of the subject material. Please review the attached recommendations assigned to you and take the appropriate action.

Action Taken: (PLEASE INDICATE APPROVAL OF THE DISPOSITION BY YOUR SIGNATURES BELOW)

1. The attached recommendations assigned to me have been:

- Check One Accepted Provide below a description of the action completed. Do not return this form until all assigned action is complete: REVIEWED SONP procedures and system design, verified the quality of SNP design and revised applicable SNP procedures to ensure technical specification compliance.
- Modified Provide what should be modified and why below: then return this form to RLS. Do not implement any actions.  
Explanation: \_\_\_\_\_
- Rejected Reason for rejection: \_\_\_\_\_

2. If the action in item 1 was accepted, please answer the questions below:

- a. Did the action taken affect the 10 CFR 50.49 program? ( ) Yes ( ) No  
If yes, coordinate action taken with the EQ coordinator (EQ Coordinator initials \_\_\_\_\_)
- b. Did the action taken affect the SONP FSAR? ( ) Yes ( ) No  
If yes, was an FSAR change submitted? Explain: \_\_\_\_\_

Donald B. Brown 6930 10/16/89  
Implementor, PHONE EXT. Date

Don E. Adams 10/16/89  
Section Supervisor Date

NER GROUP

Action Taken Concurred With:  Yes  No

Reason (required for non-concurrence): \_\_\_\_\_

[Signature]  
NER GROUP 10/24/89  
Date

\* Please advise when actions completed.  
10/23/89 is the final date for action on LSR 327/89025 while your response to me on 9/21/89 indicates 11/1/89.  
TDS 9/23/89

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in FSAR.

4) Maintain working copy of all chemistry related ASTM's referred in SOLTS or committed to

3) Write CAQ/PRO as appropriate?

2) How was this missed in SI review process?

1) Investigate what actions WBN had previously taken relative to fuel oil sampling.

The following recommendations are made for your review of the OE 3491:

Subject: OE 3491 - Faulty Chemistry Sampling Technique

Date: 8/11/93

To: G.L. Fiser, Manager Chemistry  
From: J.D. Smith, Manager NER



INSTRUCTION CHANGE FORM

INSTRUCTION TITLE QUARTERLY CHEMISTRY REQUIREMENTS ON DIESEL GENERATOR FUEL OIL.  
 INSTRUCTION NO. SI-116 LATEST REV. DATE 12/13/88 PAGES AFFECTED ALL DGA 9/26/89  
 No. of Outstanding ICFs: Permanent 0 Non-Permanent 0 1 thru 7  
 DESCRIPTION OF CHANGE (ATTACH SCREENING REVIEW/SAFETY EVALUATION AND REVISED PAGES) PROCEDURE  
IS BEING REVISED TO ENSURE CORRECT SAMPLING PER ASTM D270-1975.  
AND REMOVAL OF REFERENCE PMP TS 04.06.07.14.03 WHICH HAS BEEN DELETED  
THE ADDITIONAL ANALYSIS FOR TOTAL PARTICULATE CONTAMINATION IS ALSO BEING ADDED  
 BASIS FOR CHANGE (SUCH AS ECN NO., DRAWING NO., VENDOR MANUAL NO., ETC.) TO UPDATE  
SI AND ENSURE TS COMPLIANCE DUE TO PREVIOUS INADEQUATE  
SAMPLING METHODS. SEE LER 50-327/89025

AND 7-DAY  
TANK FOR  
ACC. WATER.

SUBMITTED BY DONALD G. Amos EXT. 6130 DATE 9/18/89 SECTION CHEMISTRY  
print name

IS THIS CHANGE PERMANENT?  NO  YES IF YES, COMPLY WITH 10.6.1 REQUIREMENT.

IF NO, MUST INDICATE EXPIRATION DATE BELOW:

NON-PERMANENT EXPIRATION DATE N/A DGA 9/18/89 (not to exceed 45 days)

RESPONSIBLE SECTION SUPERVISOR Don E. Adams 19-22-89

Approved By Date

(See instruction coversheet to identify the Responsible Section)

DOES THIS CHANGE CONSTITUTE A BIENNIAL REVIEW IN ACCORDANCE WITH 8.3.1.c.  YES  NO

IS THIS CHANGE TO A TECH SPEC RELATED SURVEILLANCE INSTRUCTION?  YES  NO IF YES, REFER TO SI-1.  
COMPLETE AND ATTACH THE SI REVIEW CHECKLISTS (APPENDIX F AND APPENDIX J) WHEN APPROPRIATE

Don E. Adams 9/22/89  
Approved By Date

ANI/ANII CONCURRENCE FOR ASME CODE ACTIVITIES N/A DGA 9/18/89

Concurred By Date

REVIEW	SIGNATURE	DATE REVIEWED
IOR REVIEWER	<u>Alan W. Adams</u>	<u>9/19/89</u>
CDR IF APPLICABLE	<u>N/A DGA 9/18/89</u>	
QA REVIEW AND CONCURRENCE	<u>Alfred Byers</u>	<u>9/22/89</u>

RESPONSIBLE SECTION SUPERVISOR BY Don E. Adams DATE 9-22-89

IF STI - PORC REVIEW DATE N/A DGA 9/18/89 APPROPRIATE RESPONSIBLE MANAGER N/A DGA 9/18/89

FINAL APPROVAL (APPROPRIATE RESPONSIBLE MGR) BY Sam Fries DATE 9-25-89

SOS NOTIFIED (REQUIRED IF PLANT CONFIGURATION AFFECTED)

BY N/A DGA 9/18/89 DATE \_\_\_\_\_

CHANGE MAY NOW BE IMPLEMENTED (1)

(1) INITIATOR/RESPONSIBLE SECTION SUPERVISOR/APPROPRIATE RESPONSIBLE MANAGER: DETERMINE ADDITIONAL DISTRIBUTION FOR THIS ICF BELOW.

- DOC CONTROL FILES (4)  - CONTROL ROOM CONTROLLED COPIES
- INSTRUCTION WORK PACKAGE
- RESPONSIBLE SECTION SUPERVISOR

TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR PLANT

SURVEILLANCE INSTRUCTION

SI-116

QUARTERLY CHEMISTRY REQUIREMENTS ON  
DIESEL GENERATOR FUEL OIL

Revision 13

UNIT 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	QA REVIEW REQUIRED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
---	---

RESPONSIBLE SECTION: Chemistry

PREPARED/REVISED BY: C. L. McDonald

SUBMITTED BY: Lion E. Adams  
Responsible Section Supervisor

QR: Donald H. Amos 1

SITE QA CONCURRENCE: Alfred Dyson

APPROVED BY: Hayes  
Appropriate Responsible Manager

DATE APPROVED: 12-13-88

EFFECTIVE DATE: Hayes 12-13-88  
Signature Date

FI000082

The last page of this instruction is number: 7

SEQUOYAH NUCLEAR PLANT-  
PLANT INSTRUCTION REVISION LOG

SURVEILLANCE INSTRUCTION

SI-116

REVISION LEVEL	Date Approved	Pages Affected	REASON FOR REVISION (INCLUDE COMMITMENTS AND ALL ICF FORM NUMBERS)
4	07/24/79	ALL	
5	10/18/79	2, 16	
6	01/29/81	15	
7	06/30/81	ALL	
8	11/13/81	1, 6, 7	
9	04/05/83	ALL	
10	09/21/83	1-3, 6	
11	05/11/87	Title chg All	Revised to update procedure, periodic review, and resolve CATS 86511. An Appendix F, SI-1 review checklist, was prepared. This Appendix F constitutes a periodic review. This revision also adds SQA188, Attachment 1 Coversheets to document OES endorsement for DPMS N78E1 and N78M7 (TS. 04.06.07.14.03).
12	06/23/88	1-6; Added 7, 8 Delete SQA188	This revision supercedes ICF 88-0180 and states required recirculation time before sampling 7-day tanks. Clarifies applicable and performance modes. Endorsement of this site instruction (SQA188) is no longer required by the Interim Directive. This revision constitutes a biennial review.
13	12/13/88	1-7; Deleted 8	General revision to delete quarterly check for microbes in 7-day tank.
SEP 25 1989		1-7	Interfiled ICF 89-0750.

FI000083

SEQUOYAH NUCLEAR PLANT  
PLANT INSTRUCTION REVISION LOG

SURVEILLANCE INSTRUCTION

SI-116

REVISION LEVEL	Date Approved	Pages Affected	REASON FOR REVISION (INCLUDE COMMITMENTS AND ALL ICF FORM NUMBERS)
4	07/24/79	ALL	
5	10/18/79	2,16	
6	01/29/81	15	
7	06/30/81	ALL	
8	11/13/81	1,6.,7	
9	04/05/83	ALL	
10	09/21/83	1-3,6	
			Revised to update procedure, periodic review, and resolve CATS 86511. An Appendix F, SI-1 review checklist, was prepared. This Appendix F constitutes a periodic review. This revision also adds SQA188, Attachment 1 Coversheets to document OES endorsement for DPMS N78E1 and N78M7 (TS. 04.06.07.14.03).
11	05/11/87	Title chg All	
		1-6; Added 7,8 Delete SQA188	This revision supercedes ICF 88-0180 and states required recirculation time before sampling 7-day tanks. Clarifies applicable and performance modes. Endorsement of this site instruction (SQA188) is no longer required by the Interim Directive. This revision constitutes a biennial review.
12	06/23/88	1-7; Deleted 8	
13	12/13/88	1-7	General revision to delete quarterly check for microbes in 7-day tank.
SEP 25 1989			Interfiled ICF 89-0750.

FI000084

## 1.0 SCOPE

## 1.1 Description

1.1.1 Ensure quarterly chemistry requirements on diesel generator fuel oil are met by performing the chemical analyses required in the Technical Specification (TS) Surveillance Requirements 4.8.1.1.2.c, 4.8.1.2, and non-technical specification documents in FSAR 9.5.4.4. Equipment is common to both units.

## 1.2 Objective

1.2.1 Satisfy Technical Specification requirements as follows:

1.2.1.1 At least once per 84 days by verifying that samples of the 7-day tanks obtained in accordance with ASTM-D270-1975 have a water and sediment content of less than or equal to 0.05 volume percent and a kinematic viscosity @ 100°F of greater than or equal to 1.8 but less than or equal to 5.8 centistokes when tested in accordance with ASTM-D975-77, and an impurity level of less than 2 mg of insolubles per 100 ml when tested in accordance with ASTM-D2274-70, (SR 4.8.1.1.2.c partially fulfilled and SR 4.8.1.2 partially fulfilled).

1.2.1.2 Applicable modes are 1-6 and performance modes are 1-6.

NOTE: Technical Specification requirements for new fuel addition are covered by SI-295.

1.2.2 Satisfy the non-technical specification requirements as follows:

1.2.2.1 Check for accumulated water in the 7-day tanks and main (outside) storage tanks and remove if detected.

NOTE: The check for accumulated water in the outside storage tank and sampling is only required in conjunction with 1B-B 7-day tank, SI-116.

1.2.2.2 Verify the water and sediment, kinematic viscosity @100°F, impurity level, and total particulate contamination in the outside storage tank. These analyses will be run according to ASTMs specified in steps 1.2.1.1 and 1.2.2.3.

1.2.2.3 Verify the total particulate contamination of the 7-day tank is < 10mg/liter in accordance with ASTM-D2276-78, Method A.

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1.0 SCOPE (continued)

1.3 Frequency - at least once per 84 days

NOTE: Technical Specification frequency is once per 92 days. SI frequency was increased to synchronize the quarterly 7-day tank SI with the applicable diesel generator monthly SI.

To avoid unnecessary performances, the check for accumulated water in the main (outside) storage tanks and main (outside) storage tank sampling are only required to be performed in conjunction with the SI-116 for the 1B-B 7-day tank and are not required by technical specifications.

1.4 Source Documents and References

1.4.1 Source Documents

1.4.1.1 T.S. SR 4.8.1.1.2.c and SR 4.8.1.2

1.4.1.2 FSAR 9.5.4.4

1.4.2 References

1.4.2.1 TI-11, "Chemical Analytical Methods"

1.4.2.2 TI-37, "Radiochemical Laboratory Sampling and Log Sheets"

1.4.2.3 TI-43, "Fuel Oil Supply and Storage Tank Cleaning and Biocidal Addition"

1.4.2.4 SI-294, "Detection and Removal of Accumulated Water in Diesel Generator Engine-Mounted Fuel Tanks"

1.4.2.5 TI-16, "Sampling Methods"

1.4.2.6 SOI-18.1, "Fuel Oil System"

1.4.2.7 HCI-HM5, "Storage, Use and Handling of Flammable Liquids"

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1.0 SCOPE (continued)

1.4.2 References (continued)

- 1.4.2.8 SI-295, "Receipt of Diesel Fuel For The Diesel Generators"
- 1.4.2.9 ASTM-D270-1975, "Standard Method of Sampling Petroleum and Petroleum Products"
- 1.4.2.10 ASTM-D975-77, "Standard Specification for Diesel Fuel Oils"
- 1.4.2.11 ASTM-D2274-70, "Standard Method of Test for Stability of Distillate Fuel Oil (Accelerated Method)"
- 1.4.2.12 ASTM-D2276-78, "Particulate Contamination in Aviation Turbine Fuels"

2.0 INSTRUCTIONS

NOTE: Instruction steps do not have to be performed in exact order.

NOTE: Refer to HCI-HMS guidelines for handling flammable materials during the performance of this instruction.

2.1 7-Day Tanks

- 2.1.1 Request maintenance remove cover plates, manhole covers and gaskets. Ensure that all loose items near open manhole are properly secured.
- 2.1.2 Determine if accumulated water is present and sample the applicable 7-day tank according to TI-16.  
Place the sample of the 7-day tank in an appropriate container. Label the container as to date/time, sample identification, analyst, etc. Record 7-day tank sampled and date and sample time on Data Sheet 1.0.
- 2.1.3 If water, sludge, particles, etc., is detected in the tank while obtaining the bottom sample, a portion of the water-oil mixture prepared for the detection of microbes and analyzed according to TI-11. Record any findings (water volume, microbe test results, etc.) on Data Sheet 1.0. If microbes are identified, biocide will be added in accordance with TI-43 and if water is identified it will be removed in accordance with TI-16.
- 2.1.4 Maintenance will return manhole covers, replace gaskets if necessary, and tighten all manhole cover bolts per skill of craft. The maintenance representatives (2) will sign Data Sheet 1.0 verifying all manhole covers are returned and secured in the proper position.

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0 INSTRUCTIONS (continued)

- 2.1.4 Hand carry the original sample container to the Central Laboratories for analysis. Also take the SI package and form TVA 4139, Request for Shipment of Materials. State on the form that the sample is an SI-116 diesel fuel sample and the analyses should be performed and the results reported to the SQN Chemistry Supervisor as soon as possible after sample is received to meet Surveillance Requirements. State that the SQN Chemistry Supervisor shall be notified immediately of any results that do not meet acceptance criteria.
- 2.1.5 When the SI package is returned, ensure that results of analyses are recorded on Data Sheet 1.0.

2.2 Main Outside Storage Tanks

PRECAUTION: Ensure that all analysts climbing the tank use SAFETY BELTS.  
Take care in sampling the main (outside) diesel fuel storage tanks as surface of tank may become slippery if diesel fuel is spilled.

- 2.2.1 Determine if accumulated water is present in the main (outside) diesel fuel storage tanks using TI-16. Record on Data Sheet 1.0.
- 2.2.2 Remove accumulated water according to TI-16 from main storage tank(s) if detected. Determine if microbes are present if accumulated water is detected. Add biocide per TI-43 if microbes are detected.
- 2.2.3 Sample the designated T.S. storage tank in accordance with TI-16. Transfer the sample to the Central Laboratory for analysis of parameter noted on Data Sheet 1.0.

NOTE: This analysis (step 2.2.3) is only required once/quarter on the tank used to supply the diesel generator 7-day tanks.

3.0 ACCEPTANCE CRITERIA

- 3.1 Acceptance criteria are given on the data sheet for each parameter monitored.

4.0 ACTION REQUIRED

- 4.1 The Chemistry Shift Supervisor shall review the completed SI and shall evaluate if the data is valid and meets the acceptance criteria noted in the data package. He shall complete the applicable sections on the Data Package Cover Sheet and shall acknowledge his review by signature.

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0 ACTION REQUIRED (continued)

- 4.2 The Chemistry Shift Supervisor shall immediately notify the Shift Operations Supervisor (SOS)/Senior Reactor Operator (SRO) of any Technical Specification mandated SI data acceptance criterion that is out of limits. The SOS/SRO shall review the out-of-limits data and indicate on the Data Package Cover Sheet if a limiting condition for operation (LCO) action is required.
- 4.3 If water and sediment, kinematic viscosity, or insolubles are out of limits in any 7-day tanks, then the affected diesel generator shall be declared inoperable. The oil in the tank may be cleaned or replaced accordingly and reanalyzed.
- 4.4 If the total particulate contamination is out of limit in any 7-day tank then notify the Chemistry Supervisor ..... for further evaluation and notifications. Note on Data Package cover sheet notification and action taken.

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SI DATA PACKAGE COVER SHEET  
Page 1 of 1

QUARTERLY CHEMISTRY REQUIREMENTS ON DIESEL GENERATOR FUEL OIL

Latest revision Surveillance Instruction:

Verified By \_\_\_\_\_  
Test Performer's Supervisor \_\_\_\_\_ Date \_\_\_\_\_

Performed by \_\_\_\_\_  
Analyst(s) \_\_\_\_\_

Date/Time Started: \_\_\_\_\_  
Date/Time Completed: \_\_\_\_\_

List of data sheets attached..

Instruction No.	Data Sheet No.	No. of Pages
SI-116	1.0	
_____	_____	_____

Reason for test: \_\_\_\_\_  
Required by schedule; 7-day tank \_\_\_\_\_  
Other (explain) \_\_\_\_\_

Were all SI data acceptance criteria satisfied? Yes \_\_\_\_\_ No \_\_\_\_\_  
Date \_\_\_\_\_  
Chemistry Shift Supervisor \_\_\_\_\_

If Technical Specification SI data acceptance criteria were not satisfied, immediately notify the Shift Operations Supervisor (SOS)/Senior Reactor Operator (SRO) who completes the following:

Was a potential reportable occurrence initiated? Yes \_\_\_\_\_ No \_\_\_\_\_  
Was a limiting condition for operation action required? Yes \_\_\_\_\_ No \_\_\_\_\_  
Explain \_\_\_\_\_

Verified by \_\_\_\_\_  
SOS/SRO \_\_\_\_\_ Date \_\_\_\_\_  
Time \_\_\_\_\_

Chemistry Review and Approval of Test Results  
Chemistry \_\_\_\_\_  
Date \_\_\_\_\_ F1000090

Remarks \_\_\_\_\_

ICF#89-0750

Data Sheet 1.0  
Page 1 of 1

QUARTERLY CHEMISTRY REQUIREMENTS ON DIESEL FUEL - TECHNICAL SPECIFICATIONS<sup>(1)(2)(3)</sup> (5)  
and NON-TECHNICAL SPECIFICATION

Procedure Step	Diesel Fuel Storage Tank	Date/Time Sampled	Kinematic Viscosity (cst)	Water & Sediment (%)	Insolubles (mg/100 ml)	Total Particulate mg/liter	Sampled By (SQNP Analyst)
Acceptance Criteria			$\geq 1.8$ and $\leq 5.8$ at 100°F	$\leq 0.05$	< 2 mg	< 10mg/1	
2.1.2 2.1.5	7-Day Tank _____	____/____	_____	_____	_____	_____	_____
2.2.3	Storage Tk						

QUARTERLY CHEMISTRY REQUIREMENTS ON DIESEL FUEL - NON-TECHNICAL SPECIFICATIONS<sup>(1)(3)</sup>

Procedure Step	Diesel Fuel Storage Tank	Date/Time Sampled	Accumulated Water	Analyst
Acceptance Criteria			No	
2.2.1	Main (outside) #1	____/____	_____	
2.2.1	Main (outside) #2	____/____	_____	

Procedure Step	Manhole Cover Replaced	Maintenance Representative
Acceptance	YES	N/A
2.1.4		/

- (1) Applicable ASTM Procedures Used - D975-77, D2274-70, and D2276-78, method A.  
 (2) Analysis by Central Lab  
 (3) Notify Chemistry \_\_\_\_\_ Supervisor or Cognizant Chemist by phone immediately if any analysis is out of limits.  
 (4) If accumulated water is detected, remove \_\_\_\_\_ accumulated water.  
 (5) The check for accumulated water in the main (outside) storage tanks and sampling of the applicable main (outside) storage tanks are only to be performed in conjunction with the SI-116 for the 1B-B 7-day tank.

NOTE: General - After entire data sheet has been completed, obtain the SQNP's signature on Data Package Cover Sheet if there are any out-of-limit Technical Specification parameters.

Remarks \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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INSTRUCTION CHANGE FORM

INSTRUCTION TITLE SAMPLING METHODS

INSTRUCTION NO. TI-16 LATEST REV. DATE 10/28/88 PAGES AFFECTED 76,77,77a, 77b, 77c, 77d, 77e, 77f, 77g, 77h.

No. of Outstanding ICFs: Permanent 1 Non-Permanent 0

DESCRIPTION OF CHANGE (ATTACH SCREENING REVIEW/SAFETY EVALUATION AND REVISED PAGES) Revised sampling methods for diesel fuel.

BASIS FOR CHANGE (SUCH AS ECN NO., DRAWING NO., VENDOR MANUAL NO., ETC.) Revised to comply with Technical Specification requirements for sampling methods, LER 50-327/89025

SUBMITTED BY Donald G. Ames EXT. 6930 DATE 7/22/89 SECTION Chemistry

IS THIS CHANGE PERMANENT?  NO  YES IF YES, COMPLY WITH 10.6.1 REQUIREMENT.

IF NO, MUST INDICATE EXPIRATION DATE BELOW:  
NON-PERMANENT EXPIRATION DATE N/A DGA 9/22/89 (not to exceed 45 days)

RESPONSIBLE SECTION SUPERVISOR Don E Adams, 9-22-89  
Approved By \_\_\_\_\_ Date \_\_\_\_\_

(See instruction coversheet to identify the Responsible Section)

DOES THIS CHANGE CONSTITUTE A BIENNIAL REVIEW IN ACCORDANCE WITH 8.3.1.c. OYES  NO

IS THIS CHANGE TO A TECH SPEC RELATED SURVEILLANCE INSTRUCTION? OYES  NO  IF YES, REFER TO SI-1. COMPLETE AND ATTACH THE SI REVIEW CHECKLISTS (APPENDIX F AND APPENDIX G), WHEN APPROPRIATE.

Approved By Don E Adams 9-22-89 Date \_\_\_\_\_

ANI/ANII CONCURRENCE FOR ASME CODE ACTIVITIES N/A DGA 9/22/89  
Concurred BY \_\_\_\_\_ Date \_\_\_\_\_

REVIEW	SIGNATURE	DATE REVIEWED
IOR REVIEWER	<u>Don E Adams</u>	<u>9/22/89</u>
CDR IF APPLICABLE	<u>N/A DGA 9/22/89</u>	<u>9-22-89</u>
QA REVIEW AND CONCURRENCE	<u>Alfred Dixon</u>	<u>9-22-89</u>

RESPONSIBLE SECTION SUPERVISOR BY Don E Adams DATE 9-22-89

IF STI - PORC REVIEW DATE N/A DGA 9/22/89 APPROPRIATE RESPONSIBLE MANAGER N/A DGA 9/22/89

FINAL APPROVAL (APPROPRIATE RESPONSIBLE HGR) BY Gary Fries DATE 9-25-89

SOS NOTIFIED (REQUIRED IF PLANT CONFIGURATION AFFECTED)  
BY N/A DGA 7/22/89 DATE \_\_\_\_\_

CHANGE MAY NOW BE IMPLEMENTED (1)

(1) INITIATOR/RESPONSIBLE SECTION SUPERVISOR/APPROPRIATE RESPONSIBLE MANAGER: DETERMINE ADDITIONAL DISTRIBUTION FOR THIS ICF BELOW.

- DOC CONTROL FILES (4)  - CONTROL ROOM CONTROLLED COPIES

- INSTRUCTION WORK PACKAGE

- RESPONSIBLE SECTION SUPERVISOR

APPENDIX D  
Page 1 of 7

SCREENING REVIEW FORM FOR DOCUMENTING APPLICABILITY OF A SAFETY EVALUATION ICF # 89-0751

Document No. (i.e., ECN #, procedure # and revision, special test #, etc.) FI-16, R43  
Description of Proposed Change, Test, or Experiment: Revision of sampling methods for diesel fuel. Revision is to comply with Technical Specifications sampling requirements; LER 50-327/89025.

1. Does the proposed change involve a change in the facility as described in the SAR or a radwaste system? [ ] Yes [ ] No  N/A  
If yes, a safety evaluation is required.  
Justification

2. Does the proposed change involve new procedures or instructions or revisions to instructions or procedures as described in the SAR or plant Tech Specs? [ ] Yes  No [ ] N/A  
If yes, a safety evaluation is required.

Justification: This proposed change is to the diesel fuel sampling procedures to ensure a representative sample in accordance with Tech Spec requirements per ASTM D470-1975. This proposed change is to bring the procedure in line with the descriptions in the SAR and plant tech specs, and does not conflict with those descriptions.

3. Is the proposed test or experiment described in the SAR or any other NRC document authorizing the activity? [ ] Yes [ ] No  N/A  
If yes reference the SAR section or other NRC document authorizing the activity:  
If no, a safety evaluation is required.

Justification:

Is a change to the Technical Specifications required for conducting or implementing the change, or test, or experiment as described in the document? [ ] Yes  No  
If yes, return the document to the originator for revision, modification, or initiation of a Technical Specification change.

Researched documents (specify sections) SAR 9.5.4.4 Tech Specs SR 4.8.1.1.2.c, 4.8.1.2

Prepared By: Cathy L. McDonald (Print Name) Cathy L. McDonald (Signature) Date 9-20-89

Approved By: Stan W. Stevens (Print Name) Stan W. Stevens (Signature) Date 9/22/89

CHEMIST

F1000093

Level II James W. Proffitt (Print Name) James W. Proffitt (Signature) Retention Period: Life of Plant 0713S/sgn 9/22/89

APPENDIX 01

SAFETY ASSESSMENT  
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Description of Activity TI-16 R43 ICF#89-0751

I. Safety Assessment

1. Could the proposed activity adversely affect either directly or indirectly the ability to meet the requirements involving the following for any safety-related system, structure, component, or function:

Yes	No	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fire Protection
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Internal Flooding
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Pipe Breaks
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Pipe Whip
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Harsh Environmental (Temperature/Pressure/Humidity)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Electrical System Alignments
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Safety System Alignments
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Harsh Radiation
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Release of Radioactivity
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Jet Impingement Effects
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Seismic/Dead Weight
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Internal Missiles
<input type="checkbox"/>	<input checked="" type="checkbox"/>	External Missiles
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sabotage
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Increased Heavy Loads
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Toxic Gases
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Hazardous Material
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Human Factors
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Improper Electrical Separation
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Improper Electrical Isolation
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Primary Containment Integrity/Isolation
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Secondary Containment Integrity/Isolation
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Equipment Reliability
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Materials Compatibility
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Single Failure Criteria
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Physical Security
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Control Room Habitability
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Environmental Qualification
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Equipment Failure Modes
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Consequences of Procedure Error
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Natural Phenomena such as Wind, Tornado, or Flood
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Piping Vibration
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Protective Coatings Inside Containment
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Water Spray/Condensation
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Corrosiveness
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Weld Failure
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Pump Net Positive Suction Head
<input type="checkbox"/>	<input checked="" type="checkbox"/>	System Flowrates
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Allowable Pressure Drops
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Allowable Fluid Velocities
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Water Chemistry/Cleanliness
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Equipment Redundancy
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Equipment Diversity
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Physical Separation
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Electrical Loads

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APPENDIX D1  
SAFETY ASSESSMENT  
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- | Yes                          | No                                  |  |
|------------------------------|-------------------------------------|--|
| 2. <input type="checkbox"/>  | <input checked="" type="checkbox"/> | Could the proposed change or activities directly or indirectly adversely affect safety injection/core cooling capability (e.g., flowpaths, capacities, setpoints, response times, etc.)?             |
| 3. <input type="checkbox"/>  | <input checked="" type="checkbox"/> | Could the proposed change or activity directly or indirectly adversely affect decay heat removal capability (e.g., flowpaths, capacities, setpoints, response times, etc.)?                          |
| 4. <input type="checkbox"/>  | <input checked="" type="checkbox"/> | Could the proposed change or activity directly or indirectly adversely affect the reactor coolant pressure boundary?   |
| 5. <input type="checkbox"/>  | <input checked="" type="checkbox"/> | Could the proposed change or activity directly or indirectly adversely affect containment isolation capability (e.g., response times, pathways, heat removal capability, ice condenser performance)? |
| 6. <input type="checkbox"/>  | <input checked="" type="checkbox"/> | Could the proposed change or activity directly or indirectly adversely affect reactor core parameters (e.g., reactivity, core monitoring, shutdown margin, setpoints, limitations, etc.)?            |
| 7. <input type="checkbox"/>  | <input checked="" type="checkbox"/> | Could the change add, delete, move, or alter the position of safety-related equipment?   |
| 8. <input type="checkbox"/>  | <input checked="" type="checkbox"/> | Could the change directly or indirectly adversely affect the function of any safety-related equipment?   |
| 9. <input type="checkbox"/>  | <input checked="" type="checkbox"/> | Could the change directly or indirectly adversely affect the performance or performance requirements for safety-related equipment?   |
| 10. <input type="checkbox"/> | <input checked="" type="checkbox"/> | Could the change directly or indirectly adversely affect the failure modes of safety-related equipment?  |
| 11. <input type="checkbox"/> | <input checked="" type="checkbox"/> | Are there any other possible adverse impacts on nuclear safety?  |

For any questions 1-11 answered "yes", a safety evaluation is required.

If questions 1, 2, and 4 on the screening review form are answered "Yes" or "N/A" or "N/A"; and question 3 is answered "Yes" or "N/A"; and the 11 questions above are all answered "no", then there is no safety impact and the change is not described in the SAR and no unreviewed safety question exists.

References/Documentation/Justification (Optional)  
SAR 9.5.4.4  
Tech Specs SR 4.8.1.1.2.c, SR 4.8.1.2

III. Approval

Prepared by Cathy L. McDonald Signature Cathy L. McDonald Date 9-20-89  
(print name)  
Reviewed by Stan W. Steffen Signature Stan W. Steffen Date 9/22/89  
(print name)

Level II James W. Puffitt Signature James W. Puffitt Date 9/22/89

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SAMPLING METHODS (continued)

A.10.2 DIESEL FUEL

1.0 Location

Diesel Generator Building 7-Day Tanks are sampled by removing the four (4) manhole covers of the applicable 7-day storage tank. The manhole covers are located under the access plates in corridor on the first floor of the diesel generator building.

Diesel Generator Storage Tanks (A and B) are located south-east of the diesel generator building.

2.0 Flush Requirement

None.

3.0 Precautions and Limitation

**PRECAUTION: SECURE ALL EQUIPMENT WITHIN 8 FEET OF THE APPLICABLE SAMPLE POINT TO ENSURE NOTHING FALLS INTO THE TANK(S). ANALYST WORKING OR CLIMBING STORAGE TANKS MUST WEAR SAFETY BELTS.**

A. Persons entering the Diesel Generator Building should be familiar with Hazard Control Instruction (HCI) G12 and HCI-PPE22.

B. Persons handling Diesel Fuel should be familiar with HCI-HM5.

C. Anyone smelling a wintergreen odor in any area protected by a CO<sub>2</sub> fire protection system shall:

1. Immediately INITIATE evacuation of the area.
2. CONTROL access to the area to the degree possible.
3. NOTIFY the Shift Operations Supervisor that CO<sub>2</sub> may have discharged or be leaking into the area.

D. Persons within a room shall leave immediately if the alarm horn sounds indicating a CO<sub>2</sub> release has been activated. Twenty seconds are allowed for evacuation after the alarm initiation before system operation.

E. Persons entering the Diesel Generator Building should be familiar with the use and location of the 5-minute air capsules.

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SAMPLING METHODS (continued)

A.10.2 DIESEL FUEL (continued)

3.0 Precautions and Limitation (continued)

- F. Waste diesel fuel should be disposed of in an appropriate container in accordance with SQA126.

4.0 Sampling Instructions - 7-Day Tanks

NOTE: The sampling of the 7-day tanks is for Technical Specification compliance. If any water, sludge, etc., is identified it must be recorded in the remarks section of the applicable SI.

- A. Request maintenance support personnel to remove bolts and loosen the four (4) west-end manhole covers from the applicable 7-day storage tank. The manhole covers will be removed one at a time and returned to position following each sampling.
- B. Utilize a "BACON" bomb sampler to obtain a bottom sample for verifying the presence of condensate and to obtain three (3) samples of each of the four (4) tanks that comprise the 7-day tank.

NOTE: The "BACON" bomb sampler and any loose items should be secured to avoid lose in the tank. Sampling can be accomplished easier by three (3) analysts, two operating the sampler near the manhole and one preparing the composite.

1. RINSE the following equipment with freon prior to obtaining any samples; graduate cylinder (≈500 ml), 1000 ml beaker, glass bottle (1000 ml) (2) and carbouy.
2. LABEL the glass bottle; Sample ID (7-Day Tank) date/time of sampling, applicable SI, analyst, etc.
3. SAMPLE as follows when manhole covers are removed.
  - a. LOWER SAMPLE - lower the sample

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SAMPLING METHODS (continued)

A.10.2 DIESEL FUEL (continued)

4.0 Sampling Instructions - 7-Day Tanks (continued)

bomb to the lower section of the tank, approximately 6 - 8 inches from the bottom i.e., pump suction. (The tank diameter is 6 foot and sample device can be marked accordingly).

TRANSFER diesel fuel to the 1000 ml beaker.

TRANSFER diesel fuel to the graduate to the 300 ml mark, SWIRL to mix prior to transfer.

TRANSFER graduate contents to the carbouy.

DISCARD waste in the beaker to the storage tank or diesel fuel waste container.

b. MIDDLE SAMPLE

LOWER sample bomb to three (3) feet below the surface of the diesel fuel and FILL.

TRANSFER diesel fuel to the 1000 ml beaker.

TRANSFER diesel fuel to the graduate to the 400 ml mark, SWIRL to mix prior to transfer.

TRANSFER graduate contents to the carbouy.

DISCARD waste in the beaker to the storage tank or diesel fuel waste container.

c. TOP SAMPLE

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SAMPLING METHODS (continued)

A.10.2 DIESEL FUEL (continued)

4.0 Sampling Instructions - 7-Day Tanks (continued)

LOWER sample bomb directly below the surface of the diesel fuel and FILL.

TRANSFER diesel fuel to the 1000 ml beaker.

TRANSFER diesel fuel to the graduate to the 300 ml mark, SWIRL to mix prior to transfer.

TRANSFER graduate contents to the carbouy.

DISCARD waste in beaker to the storage tank or diesel fuel waste container.

d. BOTTOM SAMPLE - (CONDENSATE CHECK)

Lower sample bomb to the bottom of the tank, when the bomb contacts the bottom it will automatically FILL.

TRANSFER the filled sampler to above the 1000 ml beaker and release diesel fuel.

Allow to set for approximately 5 minutes and OBSERVE the sample for any water/oil interface.

MICROBE CHECK - if water is observed check for microbes according to TI-11.

NOTE: IF MICROBES ARE DETECTED, ADD BIOCIDES PER TI-43.

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A. SAMPLING METHODS (continued)

A.10.2 DIESEL FUEL (continued)

4.0 Sampling Instructions - 7-Day Tanks (continued)

WATER REMOVAL - if water is observed it must be removed by use of a portable pump and the quantity estimated and recorded on applicable SI.

REPEAT the bottom sampling ensuring all identified water was removed.

- C. Repeat steps B.3.a through B.3.d for all four (4) tanks, compositing all samples in the same carboy. The total sample carboy volume will be approximately 4000 ml.
- D. Thoroughly MIX the carboy and QUICKLY fill the two labeled glass bottles. One sample will be stored at the Diesel Generator building as a backup until laboratory results are obtained. DISCARD remaining carboy fuel.
- E. TRANSFER one glass bottle to the laboratory for analysis.

5.0 Sampling Instructions - Outside Storage Tank - Condensate Check

NOTE: Follow all safety precautions when climbing and working on top of the storage tank. Ensure that all analyst climbing the tank wear SAFETY BELTS and all loose items in pockets, dosimetry, "BACON" bomb sampler, etc., are removed or secured.

- A. LOWER the "BACON" bomb sampler to the bottom of the outside storage tank once it strikes the bottom it will automatically fill.
- B. TRANSFER the filled sampler to above a 1000 ml beaker and transfer contents.
- C. ALLOW to set for approximately 5 minutes, OBSERVE the sample for any water/oil interface.
- D. MICROBE CHECK - if water is observed check for microbes according to TI-11.

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SAMPLING METHODS (continued)

A.10.2 DIESEL FUEL (continued)

7.0 SAMPLING INSTRUCTION - DAY TANKS (continued)

- B. ALLOW the sample to sit undisturbed for approximately five (5) minutes and OBSERVE for the presence of accumulated water.
- C. If water is identified record on applicable SI data sheet and conduct a microbe check according to TI-11.
- D. REPEAT steps A and B until no water is observed in the sample.

8.0 SAMPLING INSTRUCTIONS - NEW FUEL.

NOTE: Follow appropriate precautions listed in section D of this instruction and in HCI-HMS. When sampling the tanker ensure the sampling equipment is properly secured to avoid losing it in the tanker.

A. Diesel Fuel - Auxiliary Boiler Use Only

- 1. Dip sample from the top of the truck.
  - a. Obtain necessary material to collect a sample such as a sampler and a liter bottle.
  - b. Prepare the sampler by tightening clamp around bottle.
  - c. Carefully mount the truck. (The truck tank hatch must be opened prior to sampling).
  - d. Place the sampler into the liquid and obtain a sample.
  - e. Carefully remove the sampler allowing excess liquid to drain back into the truck tank.
  - f. Place cap back on sample bottle.

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SAMPLING METHODS (continued)

A.10.2 DIESEL FUEL (continued)

8.0 SAMPLING INSTRUCTIONS - NEW FUEL (continued)

8. Hand the sample carefully down to the individual on the ground and carefully dismount from the truck.
2. Grab sample from the truck fill connections.
  - a. Obtain necessary material to collect a sample such as a liter bottle and a bucket.
  - b. Have the truck driver open the valve to the compartment to be sampled.
  - c. Flush approximately one liter from the compartment being sampled into the bucket and then sample the compartment using the liter bottle. Have the truck driver then close the valve to that compartment.
  - d. Continue until all compartments containing diesel fuel have been sampled. The total sample will be a composite of all these compartments.
  - e. Dispose of the excess diesel fuel in the bucket by emptying it into an appropriate waste oil drum.

B. Diesel Fuel - Diesel Generator Use Only

NOTE: This procedure should be conducted by two analysts due to amount of work involved.

1. "BACON" bomb samples from all compartments of the truck.
  - a. Obtain the necessary material to collect a sample.
    1. "BACON" bomb sampler.
    2.  $\approx$  1 liter beaker.
    3.  $\approx$  500 ml graduate cylinder.

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SAMPLING METHODS (continued)

A.10.2 DIESEL FUEL (continued)

8.0 SAMPLING INSTRUCTIONS - NEW FUEL (continued)

B. Diesel Fuel - Diesel Generator Use Only  
(continued)

4. 2 - Labeled glass bottle  
(Tanker ID, sample  
date/time, analyst, diesel  
fuel, etc.)
5. Carboy.
- b. Request the truck driver to open  
the hatch to the diesel fuel  
compartment.
- c. Carefully mount the truck.
- d. Lower the "BACON" bomb sample to  
the bottom of the trailer  
compartment. It will automatically  
fill when it strikes the bottom.
- e. Once the sampler has filled remove  
and transfer contents to the 1000  
ml beaker.
- f. Transfer the sample to the graduate  
cylinder to the 300 ml mark,  
swirling sample prior to transfer.
- g. Transfer the 300 ml graduate sample  
to the carboy.
- h. Return the waste diesel fuel to the  
trailer.
- i. Repeat steps d through h for the  
center portion of the trailer and  
directly below the surface of the  
diesel fuel. The center portion  
composite volume will be 400 ml and  
the surface sample will be 300 ml.

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NER ITEM EVALUATION

NER

NER NUMBER

(A) APPLICABILITY EVALUATION

(1) TITLE: DER 89-3491

(2) Keywords: \_\_\_\_\_

(3) Applicable to: BFN  BLN  SQN  WBN  Other  W/A  Generic

(4) Applicability Explanation/Required Actions: \_\_\_\_\_

\_\_\_\_\_  
NA  
\_\_\_\_\_

(5) Root Cause Code(s): \_\_\_\_\_ (6) Significance Code: \_\_\_\_\_

(7) NER Data Base Searched and the Following Items Identified:

\_\_\_\_\_  
\_\_\_\_\_

(8) PRIORITY: 30 days  (Red) 90 days  (Yellow) Info  (Green)

NER Reviewer: \_\_\_\_\_ Ext \_\_\_\_\_ Date \_\_\_\_\_

NER Manager: \_\_\_\_\_ Ext \_\_\_\_\_ Date \_\_\_\_\_

(B) NER ITEM RESPONSE SUMMARY

(1) NER item is applicable: yes [] no [ ]

(2) Response Summary: see JDS memo 10-26-89

\_\_\_\_\_  
\_\_\_\_\_

(3) Implementation Date: NA (4) TROI No.: \_\_\_\_\_

(5) Item Needs Further Review: Yes [ ] No []

(6) Responsible Manager: M. Decht Ext 846 Date 11-20-89

(C) CLOSURE (1) Response is acceptable: [] Response is not acceptable [ ]

(2) Comments: see B-2 above

\_\_\_\_\_  
\_\_\_\_\_

(3) NER Reviewer: \_\_\_\_\_ Date 11-20-89

(4) NER Manager: \_\_\_\_\_ Date \_\_\_\_\_

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SAMPLING METHODS (continued)

A.10.2 DIESEL FUEL (continued)

8.0 SAMPLING INSTRUCTIONS - NEW FUEL (continued)

B. Diesel Fuel - Diesel Generator Use Only  
(continued)

- j. Repeat this process steps b through i for all truck compartments, requesting the driver to close hatches following sampling.
- k. Carefully dismount the trailer.
- l. Thoroughly mix the carbony and quickly fill the labeled glass bottles.
- m. Transfer one glass bottle to the laboratory for analysis, and save the other as a backup until laboratory results are obtained.

9.0 WATER REMOVAL - 7-DAY OR OUTSIDE STORAGE TANK

- A. Use a pump (hand, vacuum, etc.) to remove any identified water by lowering the suction side of the pump to the bottom of the tank.
- B. Tygon tubing should be used on the discharge of the pump to visually inspect water being removed. A section of the discharge volume can be placed in a liter beaker and visually inspected for water.
- C. Once all water has been removed a "BACON" bomb sampler will be collected from the bottom of the tank as per previous sample steps.

APPENDIX E

PRELIMINARY EVENT REPORT

PRELIMINARY EVENT REPORT

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REPORT DATE: 08-17-89

REPORT NO. II-89-049

5. Description of Condition/Event: (For personnel injuries, include the individual's name, nature of the injury, and how the individual was dispositioned). (continued)

Due to the fact that sampling had not been representative and per ASTM D270-1975 as outlined in the Plant Technical Specification Section 4.8.1.1.2.C, a CAQ was initiated.

The timeframe for the condition/event are as follows:

08/10/89	≈ 1500	Chemistry personnel were notified of NER OE 3491, a potential problem associated with diesel fuel sampling and analysis. At this time Chemistry personnel believed that by design of tanks and recirculation prior to sampling the NER did not apply to Sequoyah.
08/14/89	≈ 1500	The design of the 7-day storage tanks were verified as being four (4) cylindrical tanks each with a recirculation ability which only recirculated the two (2) inside tanks. A further review of ASTM D270-1975 indicated that our recirculation method was not specified.
	≈ 1900	CAQR SQP 890457 was written due to potential problems in verifying Technical Specification compliance of diesel fuel.
08/15/89	≈ 0800	An Action Plan (SQA 211) was written by Chemistry to verify the quality of diesel fuel in the 7-day storage tanks.
	1109	PRO No. 1-89-187 was written by Operations and LCO 3.8.1.1.d entered due to inadequate verification of 7-day storage tank fuel oil. SR 4.0.3 allowed 24 hours until the action statement requirements are in effect.
	≈ 1500	The Action Plan written to verify diesel fuel quality was approved and sampling initiated.

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APPENDIX E

PRELIMINARY EVENT REPORT

PRELIMINARY EVENT REPORT	Page 3 of 4
REPORT DATE: 08-17-89	REPORT NO. II-89-049

5. Description of Condition/Event: (For personnel injuries, include the individual's name, nature of the injury, and how the individual was dispositioned). (continued)

	2400	Action Plan for sampling of all 7-day storage tank fuel oil was completed and analysis initiated.
08/16/89	1100	Sequoyah Management met with NRC and provided diesel generator fuel oil status. At this time the water and sediment content and kinematic viscosity of all four 7-day tanks were within Technical Specification limits. The insoluble analysis were not complete due to time constraints of the applicable procedure.
08/16/89	1109	The 24 hour action statement expired and entered LCO 3.8.1.1.d, 2 hr. and 6 hrs. Mode 3 requirement. All four (4) Diesel Generators were declared inoperable and a Notification of Unusual Event (NOUE) was entered.
08/16/89	1129	Notified NRC by telephone of REP.
08/16/89	≈ 1445	The analysis of all fuel oil was complete and within Technical Specification requirements. The applicable LCOs were exited.

6. Cause of Event (Preliminary): Evaluation of NER OE3491 received 08/10/89, concerning the sampling of diesel fuel oil used in the Emergency Diesel Generators.

7. Short-Term Corrective Actions/Responsible Organization: On 08/15/89 at 1900 samples were obtained (per ASTM D270-1975) by removing the man-hole covers from each of the diesel fuel oil storage tanks that supply the Emergency Diesel Generators. These samples were analyzed and found to be within the required specifications, except 7-day tank 2AA was out of specification for water and sediment. After removing water from the 2AA 7-day tank, the tank was reanalyzed and found to be within specifications.

8. Investigation Plan: (Include Organizations Represented on the Investigation Team) Chemistry will determine appropriate sampling methods for future compliance and initiate required procedural changes and/or equipment modifications.