

ENVIRONMENTAL QUALIFICATION OF SAFETY-RELATED
ELECTRICAL EQUIPMENT
IEB 79-01B

111

TECHNICAL EVALUATION REPORT
DOCKET NO. 50-280
PLANT: Surry 1
DATED: November 25, 1980

Licensee: Virginia Electric and Power Company

Type Reactor: Westinghouse PWR

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Prepared by V. L. Brownlee
11/26/80

Engineering Support Section
Reactor Construction and Engineering
Support Branch, RII

B106010 776

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Attachment 2	List of Standard Systems
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1. INTRODUCTION

1.1 General

The NRC Office of Inspection and Enforcement (I/E) issued Bulletin 79-01B, "Environmental Qualification of Class 1E Equipment" in January 1980. This bulletin required the licensee to perform a detailed evaluation of the environmental qualification on Class 1E electrical equipment required to function under postulated accident conditions and to submit a report on this action.

This document is a report on the evaluation of the licensee's response to this bulletin.

2. BACKGROUND AND DISCUSSION

2.1 General

The evaluation of the licensee's response was accomplished by performing an on-site inspection of selected class 1E equipment and by examining the licensee's report for completeness and technical accuracy. The licensee's report used in this evaluation is dated November 1, 1980. The November 1, 1980 report includes the responses to the bulletin supplements with the exception of IE Supplement 3 issued on October 24, 1980.

2.2 On-Site Inspections

The on-site inspection, made on selected IE equipment, verified proper installation of equipment, overall interface integrity, location with respect to flood level for equipment inside the containment, and manufacturers nameplate data. The manufacturer and model number from the nameplate data was compared to information given in the Component Evaluation Work Sheets (CES) of the licensee's report.

Components that were examined during the field inspection are identified by an asterisk (*) in Attachment 1. If any discrepancies were noted between the installed equipment and the correspondent equipment addressed in the licensee's report, they are discussed in Section 4 of this report. The site inspection is documented by report number 50-280/80-14 of May 2, 1980.

2.3 Evaluation of Licensee's Report

Each component as addressed on the Component Evaluation Work Sheets (CES) of the licensee's report was examined for completeness and accuracy to the criteria given in the bulletin. This examination assumed qualification documents (analysis, test reports, etc.) referenced by the licensee in their submittal are acceptable.

The results of this examination are documented in Attachment 1. The CES page numbers in column 1 of Attachment 1 is the same CES page found in the licensee's report.

3. GENERAL INFORMATION

3.1 Identification Of Class 1E Electrical Equipment

The licensee's list of systems was compared to the systems listed on Attachment 2. This list is considered to be a standard list for Westinghouse, NSSS, PWR reactors.

It is recognized that there are differences in nomenclature of systems because of plant vintage and engineering design, therefore, many of these systems may not exist for Surry 1 plant or the function of these systems for the Surry 1 plant may be performed by comparable systems with different names. In any case, all the systems of Attachment 2 were not addressed or listed in the licensee's report. The systems described in the licensee's report are denoted by a check (✓) next to the systems listed on Attachment 2. The systems that were not addressed in the licensee's report are denoted by an asterisk (*). The licensee's representative informs IE:II that the asterisked (*) systems on Attachment 2 will be addressed in the VEPCO response due February 1, 1981.

3.2 Service Conditions

The service condition accident environment, HELB/LOCA inside containment and HELB outside containment are indicated or discussed in the licensee's report and are based on the FSAR accident analysis.

3.3 Qualification Documentation

Attachment 3 is list of documents (test reports, analysis, letters, etc.) used by the licensee in determining the environmental qualification of plant equipment for Surry 1. These references have been tabulated and are indicated on the applicable CES of their report.

4. EQUIPMENT DATA REVIEW

- 4.1 Equipment that is considered to meet IEB 79-01B requirements are categorized as 1 in the last column of Attachment 1.
- 4.2 Equipment whose qualified life (Aging) is less than the life of the plant is categorized as 2 in the last column of Attachment 1.
- 4.3 The licensee has identified specific equipment which has been or is being replaced, modified or relocated as a result of their IEB 79-01B efforts. This equipment is categorized as 3 in the last column of Attachment 1.
- 4.4. Equipment whose qualification is unresolved (such as, a qualification record search is still in process, tests are scheduled to determine qualification, additional information is needed by the NRC reviewer to satisfy him that equipment is qualified, etc.) is categorized as 4 in the last column of Attachment 1.

- 4.5 Equipment that the licensee has identified as not being qualified required an LER with justification for continued plant operation.

No LER's were received in Region II.

- 4.6 Equipment whose qualification (Aging exempted to a certain degree - see DOR guideline Section 4) is unresolved, as identified by the licensee is listed in Attachment 4 as Outstanding Items.

The licensee has provided justification for continued plant operation for many, if not all, of these outstanding items in their report. In many cases, this is provided on their CES or in a special section of the report. In some cases the licensee states that this justification is by Engineering Analysis that are available at their office.

- 4.7 The component data obtained during the on-site inspection could not be compared with the information submitted on several of the licensee's Component Evaluation Sheets. This comparison could not be made because the licensee had not yet determined the component model. The licensee has committed to supplying the component model data during the present steam generator outage. Asterisked items in Attachment 1 are components examined during the on-site inspection.

5. CONCLUSIONS

Due to the time constraints imposed by the Commission Memo and Order of 5/28/80 this evaluation is based on the licensee submittal dated November 1,

1980. This licensee's report does not address all items that may be pertinent to Surry 1 plant as a result of a bulletin supplement issued on 9/30/80 and 10/24/80 respectively. Specifically, information on cold shutdown and TMI Lessons Learned related equipment which is received subsequent to 11/1/80 will be evaluated by the EQB of NRR.

The licensee's actions meet the requirements of the Commission Memo and Order of 5/23/80 and justification for continued plant operation with many of the components that have unresolved qualification items is indicated in Section 4.6. Based on the information available, the Region II reviewer considers that the justification is commensurate for the areas identified, that the proposed corrective action meets requirements of the Commission Memo and Order of 5/23/80 and, therefore, plant operation can continue until these items are resolved as committed to by the licensee.

This evaluation is based on the on-site inspections, the information supplied by the licensee in their submittal, telephone conversations with the licensee's representatives, their FSAR, and the assumption that the Qualification Documents (Test Reports, Analysis, Letter, etc.) are acceptable.

The results of this evaluation does not necessarily imply that the equipment is unreliable, unsafe or represents a significant safety issue; it does imply that additional information is required. This is indicated by the applicable categorization indicated in the last column of Attachment 1.

FACILITY: Surry 1

ATTACHMENT 1 FOR IER 79-01B
 SYSTEM Condensate Air Removal to Condenser TER

CES. Page No.	Equip. I. D.	Genetic Acid. Profile	Qual. Acid. Profile	Qual. Profile	Rad. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action		Outstanding Items	Category of Items
					Inside	Outside					Relocate	Replace		

6-1 100A SV V HC - HC 4B - - - -

R.L. 49c

Code:
 H = Indicates the item is below the flood level
 or S = Indicates the item is satisfactory
 or N = Indicates the item is not applicable
 UL = Indicates the item is unresolved, license identified
 P = Proprietary
 L = Licensee identified
 M = Reviewer identified
 I = Equipment is qualified
 2 = Aging is less than life of plant with licensee
 indicating periodic replacement

3 = Equipment requires modification (renovation, shielding, etc.)
 4 = Qualification of equipment unresolved
 a) Testing schedule not complete
 b) Reviewer needs additional information
 c) Qual. record search still in process
 5 = Equipment not qualified
 6 = Item identified to EBR for resolution

REVIEWER W. Brown DATE 11/19/80

FACILITY
SYSTEM

Summary
Channel of Volume Control

ATTACHMENT 1
FOR IEB 79-018
TER

PAGE 1 OF 2

CES. Page No.	Equip. I. D.	Generic Name	Accid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Replace	Relocate		
6-2	1275A	MOV	✓	4C	—	✓	4b	—	—	—	—	—	R, L	4b,c
6-3	1275B	MOV	✓	4C	—	✓	4b	—	—	—	—	—	R, L	4b,c
6-4	1275C	MOV	4C	4C	—	✓	4b	—	—	—	—	—	R, L	4b,c
6-5	1373	MOV	✓	4C	—	✓	4b,c	—	—	—	—	—	R, L	4b,c
6-6	1381	MOV	L	L	—	✓	4b,c	—	—	—	—	—	R, L	4b,c
6-7	P-1A	MTR	✓	4C	—	✓	4b,c	—	—	—	—	—	R, L	4b,c
6-8	P-1B	MTR	✓	4C	—	✓	4b,c	—	—	—	—	—	R, L	4b,c
6-9	P-1C	MTR	L	4C	—	✓	4b,c	—	—	—	—	—	R, L	4b,c
6-10	1122	FCV	✓	4C	—	✓	4b,c	—	—	—	—	—	R, L	4b,c
6-11	1122	FT										yes	L	3
6-12	1311	SV										yes	L	3
6-13	1115B	MOV	✓	4C	—	✓	4b,c	—	—	—	—	—	R, L	4b,c

Code:

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- ✓ or S = Indicates the item is Satisfactory
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- UL = Indicates the item is Unresolved, Licensee identified
- P = Proprietary
- L = Licensee identified
- R = Reviewer identified
- 1 = Equipment is qualified
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- 3 = Equipment requires modification (resolution, shielding, etc.)
- 4 = Qualification of equipment unresolved
 - a) Testing schedule but not complete
 - b) Reviewer needs additional information
 - c) Qual. Record search still in process
- 5 = Equipment not qualified
- 6 = Item identified to EQB for resolution

REVIEWER VLBrunlie DATE 11/19/80

FACILITY
SYSTEM

Sunny 1
Chemical & Volume Controls

ATTACHMENT 1
FOR IEB 79-018
TER

PAGE 2 OF 2

CES. Page No.	Equip. I. D.	Generic Name	Accid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licenses Action		Outstanding Items Identified by	Category of Items
					inside	Outside					Replace	Relocate		
6-14	1115C	MOV	✓	4C	—	✓	4b,c	—	—	—	—	—	R,L	4b,c
6-15	1115D	MOV	✓	4C	—	✓	4b,c	—	—	—	—	—	R,L	4b,c
6-16	1115E	MOV	✓	4C	—	✓	4b,c	—	—	—	—	—	R,L	4b,c
6-17	1289A	MOV	✓	4C	—	✓	4b,c	—	—	—	—	—	R,L	4b,c
6-18	1289B	MOV	✓	✓	—	✓	4b,c	—	—	—	—	—	R,L	4b,c
6-19	1204	SV										yes	L	3
6-20	1200A	SV	✓	4C	4C	—	4b,c	4C	—	—	—	—	R,L	4b,c
6-21	1200B	SV	✓	4C	4C	—	4b,c	4C	—	—	—	—	R,L	4b,c
6-22	1200C	SV	✓	4C	4C	—	4b,c	4C	—	—	—	—	R,L	4b,c

Code:

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- P = Proprietary
- L = Licensee identified
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- 1 = Equipment is qualified
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- 3 = Equipment requires modification (resolution, shielding, etc.)
- 4 = Qualification of equipment unresolved
 - a) Testing schedule but not complete
 - b) Reviewer needs additional information
 - c) Qual. Record search still in process
- 5 = Equipment not qualified
- 6 = Item identified to EQB for resolution

REVISOR V. Brundage DATE 11/19/80

CES.	Equip. I. D.	Genetic Name	Accid. Profile	Qual. Profile	Qual. Containment		Chem. Spray	Subm.	Licenses Action		Outstanding Items Identified by	Category of Item
					Inside	Outside			Relocate	Replace		
6-23	1H1-2 SOUTH	MCC	✓	✓	-	✓	✓	✓	-	-	R.L.	49,c
6-24	1H1-2 NORTH	MCC	✓	✓	-	✓	✓	✓	-	-	R.L.	49,c
6-25	151-2 WEST	MCC	✓	✓	-	✓	✓	✓	-	-	R.L.	49,c
6-26	151-2 EAST	MCC	✓	✓	-	✓	✓	✓	-	-	R.L.	49,c
6-27	TYPE C	EPA	✓	✓	-	✓	✓	✓	-	-	R.L.	49,c
6-28	TYPE ID	EPA	✓	✓	-	✓	✓	✓	-	-	R.L.	49,c
6-29	TYPE IA	EPA	✓	✓	-	✓	✓	✓	-	-	R.L.	49,c
6-30	TYPE IB	EPA	✓	✓	-	✓	✓	✓	-	-	R.L.	49,c
6-31	TYPE IC	EPA	✓	✓	-	✓	✓	✓	-	-	R.L.	49,c
6-32	SPEC. NO. 100	CBL	✓	✓	-	✓	✓	✓	-	-	-	7
6-33	SPEC. NO. 3187	CBL	✓	✓	-	✓	✓	✓	-	-	R.L.	49,c
6-34	SPEC. NO. 108	CBL	✓	✓	-	✓	✓	✓	-	-	-	7

Code:
 ✓ or S = Indicates the item is satisfactory
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 or U = Indicates the item is unresolved, license identified
 P = Proprietary
 L = License identified
 K = Reclaimer identified
 I = Equipment to be qualified
 2 = Aging in less than five of plant with license
 indicating periodic replacement

3 = Equipment requires modification (resolution, shielding, etc.)
 4 = Qualification of equipment unresolved
 a) Testing schedule but not complete
 b) Reclaimer needs additional information
 c) Qual. Record search still in process
 5 = Equipment not qualified
 6 = Item identified to RPA for resolution

REVISION
W Brown
 DATE 11/19/80

FACILITY

Sunny 1

SYSTEM

Common electrical equipment

ATTACHMENT 1
FOR IEB 79-018
TER

PAGE 2 OF 4

CES. Page No.	Equip. I. D.	Generic Name	Accid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licenses Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Replace	Relocate		
6-35	SPEC. NO. 430	CBL	✓	✓	✓	—	4b	—	—	—	—	—	R	4b
6-36	SPEC. NO. 3190	CBL	✓	✓	✓	—	4b,c	—	—	—	—	—	L	4b,c
6-37	SPEC. NO. 325	CBL	✓	4b,c	✓	—	4b,c	—	—	—	—	—	R,L	4b,c
6-38	SPEC. NO. 3810	CBL	✓	4b,c	4b,c	—	4b,c	—	—	—	—	—	R,L	4b,c
6-39	SPEC. NO. 3816	CBL	✓	4b,c	4b,c	—	4c	—	—	—	—	—	R,L	4b,c
6-40	SPEC. NO. 381	CBL	✓	4a	4b,c	—	4b,c	—	—	—	—	—	L	4b,c
6-41	SPEC. NO. 410	CBL	✓	✓	✓	—	4b	—	—	—	—	—	R	4b
6-42	SPEC. NO. 420	CBL	✓	4a	✓	—	4a	—	—	—	—	—	L	4a
6-43	TYPE IA	EPA	✓	4c	4c	—	4c	—	—	—	—	—	L	4c
6-44	TYPE IB	EPA	✓	4c	4c	—	4c	—	—	—	—	—	L	4c
6-45	TYPE IC	EPA	✓	4c	4c	—	4c	—	—	—	—	—	L	4c
6-46	TYPE III	EPA	✓	4c	4c	—	4c	—	—	—	—	—	L	4c

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- P = Proprietary
- L = Licenses identified
- K = Reviewer identified
- 1 = Equipment is qualified
- 2 = Aging is less than life of plant with licenses indicating periodic replacement

- 3 = Equipment requires modification (resolution, shielding, etc.)
- 4 = Qualification of equipment unresolved
 - a) Testing schedule but not complete
 - b) Reviewer needs additional information
 - c) Qual. Record search still in process
- 5 = Equipment not qualified
- 6 = Item identified to EQB for resolution

REVIEWER

V. Brundage

DATE

11/12/80

Summary of Chemical Equipment

CES.	Equip. I. D. No.	Genetic Profile	Acid. Profile	Qual. Profile	Radiation Qual. Containment		Chem. Method	Accur.	Subm.	Licensee Action			Outstanding Items Identified by Category	
					Inside	Outside				Relocate	Replace	Relocate		
6-47	TYPE IV			L	HC	HC	-	-	-	-	-	-	L	42
6-48	NO. 225 SPEC			L	HA	HA	-	-	-	-	-	-	L	42
6-49	NO. 305A SPEC			L	HA	HA	-	-	-	-	-	-	L	42
6-50	NO. 305B SPEC			L	HA	HA	-	-	-	-	-	-	L	42
6-51	NO. 305C SPEC			L	HA	HA	-	-	-	-	-	-	L	42
6-52	NO. 305D SPEC			L	L	L	-	-	-	-	-	-	R	49
6-53	NO. 304 SPEC			L	HA	HA	-	-	-	-	-	-	L	42
6-54	NO. 305E SPEC			L	HA	HA	-	-	-	-	-	-	L	42
6-55	NO. 305F SPEC			L	L	L	-	-	-	-	-	-	R	49
6-56	NO. 116H SPEC.			L	L	L	-	-	-	-	-	-	R	49
6-57	P.O. 3105			L	L	L	-	-	-	-	-	-	R	49
6-58	NO. 341 SPEC			L	HA	HA	-	-	-	-	-	-	L	42

Code:

- ✓ or S - Indicates the item is satisfactory
- or N - Indicates the item is not applicable
- UL - Indicates the item is unresolved, licensee identified
- P - Proprietary
- L - Licensee identified
- R - Reviewer identified
- I - Equipment to be qualified
- 2 - Aging in less than life of plant with licensee indicating periodic replacement

3 = Equipment requires modification (resolution, shielding, etc.)

- 4 = qualification of equipment unresolved
- a) Testing schedule but not complete
- b) Reviewer needs additional information
- c) Qual. Record search still in process
- 5 = Equipment not qualified
- 6 = Item identified to EGB for resolution

REVIEWER *W. G. ...*
DATE *11/19/80*

FACILITY Surry 1
 SYSTEM Common electrical Equipment

ATTACHMENT 1
 FOR IEB 79-018
 TER

PAGE 4 OF 4

CES. Page No.	Equip. I. D.	Generic Name	Accid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Replace	Relocate		
6-59	Spec. no. 411	CBL	✓	4a	4a	—	4a	—	—	—	—	—	L	4a
6-60	Spec. no. 326	CBL	✓	4a	✓	—	4b	—	—	—	—	—	R.L	4a,b

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- or N - Indicates the item is Not Applicable
- UL - Indicates the item is Unresolved, Licensee identified
- P - Proprietary
- L - Licensee identified
- R - Reviewer identified
- 1 - Equipment is qualified
- 2 - Aging is less than life of plant with licensee indicating periodic replacement

- 3 - Equipment requires modification (resolution, shielding, etc.)
- 4 - Qualification of equipment unresolved
 - a) Testing schedule but not complete
 - b) Reviewer needs additional information
 - c) Qual. Record search still in process
- 5 - Equipment not qualified
- 6 - Item identified to EQB for resolution

REVIEWER V. Brunk DATE 11/19/80

Suncoast Company Coating

CEC. Page No.	Equip. I. D. No.	Genetic Name	Acid. Profile	Qual. Profile	Rad. Containment	Inside	Outside	Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action	Outstanding Items Identified by	Category of Items
6-01	P-2A	MTR										yes	L	3
6-02	P-2B	MTR										yes	L	3
6-03	105A	SV												
6-04	105B	SV												
6-05	105C	SV												
6-06	107	SV												
6-07	109A	SV												
6-08	109B	SV												
6-09	110A	SV												
6-10	110B	SV												
6-11	110C	SV												

3 - Equipment requires modification (removal, shielding, etc.)
 4 - Qualification of equipment unresolved
 a) Testing schedule but not complete
 b) Reviewer needs additional information
 c) Qual. Record search still in process
 5 - Equipment not qualified
 6 - Item identified to EIR for resolution

8 - Indicates the item is below the flood level
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 P - Proprietary
 L - Licensee identified
 R - Reviewer identified
 1 - Equipment is qualified
 2 - Aging is less than life of plant with licensee indicating periodic replacement

REVIEWER *W. Brumby*
 DATE *11/19/80*

See pg 7-17
 See pg 7-17

Spraying / Containment Spray

CES. Page No.	Equip. I. D. #	Generic Name	Acid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Relocate	Replace		
6-72	101A	MOV	L	L	-	-	45	-	-	-	-	-	R	45
6-73	101B	MOV	L	L	-	-	45	-	-	-	-	-	R	45
6-74	101C	MOV	L	L	-	-	45	-	-	-	-	-	R	45
6-75	101D	MOV	L	L	-	-	-	-	-	-	-	-	-	-
6-76	102A	MOV	L	L	-	-	-	-	-	-	-	-	-	-
6-77	102B	MOV	L	L	-	-	-	-	-	-	-	-	-	-

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- or N = Indicates the item is not applicable
- UL = Indicates the item is unresolved, licensee identified
- P = Proprietary
- L = Licensee identified
- R = Reclaimer identified
- K = Equipment to be qualified
- I = Equipment to be qualified
- 2 = Aging in less than life of plant with licensee indicating periodic replacement

3 = Equipment requires modification (resolution, shielding, etc.)

- 4 = Qualification of equipment unresolved
- a) Testing schedule not complete
- b) Reclaimer needs additional information
- c) Qual. Record search still in process
- 5 = Equipment not qualified
- 6 = Item identified to EOP for resolution

REVIEWER *W. Brumby* DATE *11/19/80*

CES. Page No.	Equip. I. D. #	Generic Name	Acid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Relocate	Replace		
6-78	P-1A	MIR												
6-79	P-1B	MIR												
6-80	150H	SU									yes			3
6-81	150B	SU												7
6-82	150C	SU												
6-83	150D	SU												

Code:

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- c) Qual. Record search still in process
- 5 = Equipment not qualified
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REVIEWER: W. Brumby
 DATE: 11/13/80

FACILITY Sunny 1
 SYSTEM Food Service

ATTACHMENT 1
 FOR IER 79-01B
 TER

PAGE 1 OF 2

CES.	Equip. I. D.	Generic Name	Acid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action		Outstanding Items	Category of Items
					Inside	Outside					Relocate	Replace		

*6-84	100H	FT									yes		L	3
*6-85	100B	FT											↑	↑
*6-86	100C	FT											↑	↑
6-87	1474	LT									yes		L	3
6-88	1475	LT											↑	↑
6-89	1476	LT											↑	↑
6-90	1484	LT											↑	↑
6-91	1485	LT											↑	↑
6-92	1486	LT											↑	↑
6-93	1494	LT											↑	↑
6-94	1495	LT											↑	↑
6-95	1496	LT											↑	↑

Codes: H = Indicates the item is below the flood level
 S or N = Indicates the item is satisfactory
 or N = Indicates the item is not applicable
 U = Indicates the item is unresolved, licensee identified

- P = Proprietary
- L = Licensee identified
- R = Reviewer identified
- I = Equipment is qualified
- Z = Aging in time or plant with licensee

- 3 = Equipment requires modification (resolution, shielding, etc.)
- 4 = Qualification of equipment unresolved
- a) Testing schedule but not complete
- b) Reviewer needs additional information
- c) Qual. record search still in process
- 5 = Equipment not qualified
- 6 = Item identified to EPR for resolution

REVIEWER W. Brumley DATE 11/19/80

Per 7-26

FACILITY Sunny 1
 SYSTEM Food Service

ATTACHMENT 1
 FOR IED 79-018
 TER

CES. Page No.	Equip. I. D. #	Generic Name	Accid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Replace	Relocate		
* 6-96	151A	MOV	L	4C	L	-	46C	4C	-	-	-	-	R, L	46C
* 6-97	151B	MOV	L	4C	L	-	46C	4C	-	-	-	-	R, L	46C
* 6-98	151C	MOV	L	↓	L	-	↓	↓	-	-	-	-	R, L	46C
* 6-99	151D	MOV	L	↓	L	-	↓	↓	-	-	-	-	R, L	46C
* 6-100	151E	MOV	L	↓	L	-	↓	↓	-	-	-	-	R, L	46C
* 6-101	151F	MOV	L	↓	L	-	↓	↓	-	-	-	-	R, L	46C

Code:
 B - Indicates the item is below the flood level
 ✓ or S - Indicates the item is Satisfactory
 - or N - Indicates the item is Not Applicable
 UL - Indicates the item is Unresolved, Licenses identified
 P - Proprietary
 L - Licenses identified
 R - Reviewer identified
 1 - Equipment is qualified
 2 - Aging is less than life of plant with licenses indicating periodic replacement

3 - Equipment requires modification (resolution, shielding, etc.)
 4 - Qualification of equipment unresolved
 a) Testing schedule but not complete
 b) Reviewer needs additional information
 c) Qual. record search still in process
 5 - Equipment not qualified
 6 - Item identified to EQB for resolution

REVIEWER V. Brownlee DATE 11/19/80

CLS. No.	Page No.	Equip. I. D.	Generic Name	Acid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	License Action		Outstanding Items Identified by	Category of Items
						Inside	Outside					Replace	Relocate		
6-102	HC-2A	HC	HC	L	HC	-	HC	HC	HC	-	-	-	-	R/L	46c
6-103	HC-2B	HC	HC	L	HC	-	HC	46a	HC	-	-	-	-	R/L	46c
6-104	HA-103	HA	HA									yes	L	3	
6-105	HC-2A	PWR SUP	PWR SUP	L	HC	-	HC	46c	HC	-	-	-	-	R/L	46c
6-106	HC-2B	PWR SUP	PWR SUP	L	HC	-	HC	46c	HC	-	-	-	-	R/L	46c

Code:

- ✓ or S - Indicates the item is satisfactory
- or N - Indicates the item is not applicable
- UL - Indicates the item is unresolved, license identified
- P - Proprietary
- L - License identified
- K - Reviewer identified
- I - Equipment is qualified
- 2 - Aging is less than life of plant with license indicating periodic replacement

- 3 - Equipment requires modification (resolution, shielding, etc.)
- 4 - Qualification of equipment unresolved
 - a) Testing schedule but not complete
 - b) Reviewer needs additional information
 - c) Qual. record search still in process
- 5 - Equipment not qualified
- 6 - Item identified to EGR for resolution

REVISOR: W. Brown
 DATE: 11/19/82

See pg 7-26

FACILITY
SYSTEM

Sunny 1
Aug. Bldg. VENTILATION

ATTACHMENT I
FOR IEB 79-010
TER

PAGE 1 OF 1

CES. Page No.	Equip. I. D.	Generic Name	Accid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Replace	Relocate		
6-107	F-8A	MTR	✓	4C	-	4C	46C	-	-	-	-	-	RL	46,C
6-108	F-8B	MTR	✓	4C	-	4C	46C	-	-	-	-	-	R, L	46,C
6-109	3A	DMPIC	✓	4C	-	4B	46,C	-	-	-	-	-	L	46,C
6-110	3B	DMPIC	✓	4C	-	4B	46,C	-	-	-	-	-	L	46,C

Code:

- ✓ or S = Indicates the item is Satisfactory
- or N = Indicates the item is Not Applicable
- UL = Indicates the item is Unresolved, Licensee identified
- P = Proprietary
- L = Licensee identified
- R = Reviewer identified
- 1 = Equipment is qualified
- 2 = Aging is less than life of plant with licensee indicating periodic replacement

- 3 = Equipment requires modification (resolution, shielding, etc.)
- 4 = Qualification of equipment unresolved
 - a) Testing schedule but not complete
 - b) Reviewer needs additional information
 - c) Qual. Record search still in process
- 5 = Equipment not qualified
- 6 = Item identified to EQB for resolution

REVIEWER V. Brunker DATE 11/19/80

FACILITY
SYSTEM

Surrey
Inside Reactor Sprays

ATTACHMENT 1
FOR IEB 79-018
TER

PAGE 1 OF 1

CES. Page No.	Equip. I. D. #	Generic Name	Accid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Suba.	Licenses Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Replace	Relocate		
X 6-111	P-1A	MTR	✓	4b		-	4b	✓	-	-	-	-	R,	4b
X 6-112	P-1B	MTR	✓	4b		-	4b	✓	-	-	-	-	R	4b

see
pg
7-21
(Acceptable
for Ph only)

- Code:
- ✓ or S - Indicates the item is Satisfactory
 - or N - Indicates the item is Not Applicable
 - UL - Indicates the item is Unresolved, Licenses identified
 - P - Proprietary
 - L - Licenses identified
 - R - Reviewer identified
 - 1 - Equipment is qualified
 - 2 - Aging is less than life of plant with licenses indicating periodic replacement

- 3 - Equipment requires modification (resolution, shielding, etc.)
- 4 - Qualification of equipment unresolved
 - a) Testing schedule but not complete
 - b) Reviewer needs additional information
 - c) Qual. Record search still in process
- 5 - Equipment not qualified
- 6 - Item identified to EQB for resolution

REVIEWER V. Brownlee DATE 11/19/80

FACILITY
SYSTEM

Sunny 1
INST. AIR

ATTACHMENT 1
FOR IEB 79-018
TER

PAGE 1 OF 1

CES. Page No.	Equip. I. D. #	Generic Name	Accid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Replace	Relocate		
6-113	100	SU T1E1										YES	L	3
6-114	101A	SU	✓	4c	✓	—	4b,c	4c	—	—	—	—	R, L	4b,c
6-115	101B	SU										YES	L	3

Code:

- ✓ or S = Indicates the item is below the flood level
- or N = Indicates the item is Not Applicable
- UL = Indicates the item is Unresolved, Licensee identified
- P = Proprietary
- L = Licensee identified
- R = Reviewer identified
- 1 = Equipment is qualified
- 2 = Aging is less than life of plant with licensee indicating periodic replacement

- 3 = Equipment requires modification (resolution, shielding, etc.)
- 4 = Qualification of equipment unresolved
 - a) Testing schedule but not complete
 - b) Reviewer needs additional information
 - c) Qual. Record search still in process
- 5 = Equipment not qualified
- 6 = Item identified to EQB for resolution

REVIEWER V. Brouwer DATE 11/19/80

Summary

CES. Equip. I. D. #	Genetic Profile	Accid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action		Outstanding Items Identified by	Category of Items
				Inside	Outside					Replace	Relocate		
6-116	100H PT									yes		7	3
6-117	100B PT											1	1
6-118	100C PT											1	1
6-119	100D PT											1	1
6-120	100H SV									yes		1	3
6-121	100B SV											1	1
6-122	100C SV											1	1
6-123	100D SV											1	1
6-124	100E SV											1	1
6-125	100F SV											1	1
6-126	100G SV											1	1
6-127	100H SV											1	1

3 - Equipment requires modification (resolution, shielding, etc.)

- 4 - Qualification of equipment unresolved
- a) Testing schedule but not complete
- b) Reviewer needs additional information
- c) Qual. Record search still in process
- 5 - Equipment not qualified
- 6 - Item identified to EPR for resolution

- 8 - Indicates the item is below the flood level
- or 5 - Indicates the item is satisfactory
- or N - Indicates the item is not applicable
- UL - Indicates the item is unresolved, licensee identified
- P - Proprietary
- L - Licensee identified
- K - Reviewer identified
- I - Equipment is qualified
- 2 - Aging is less than life of plant with licensee indicating periodic replacement

REVIEWER *W. Brown* DATE *11/19/80*

Smyth
Leak Monitoring

CES No.	Page No.	Equip. I. D.	Genetic Name	Acid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action		Outstanding Items Identified by	Category of Items
						Inside	Outside					Replace	Relocate		
6-128	1014	SV											yes	2	3
6-129	1018	SV											yes	2	3

Code:

- ✓ A = Indicates the item is below the flood level
- or S = Indicates the item is Satisfactory
- or N = Indicates the item is Not Applicable
- UL = Indicates the item is Unresolved, Licensee Identified
- P = Proprietary
- L = Licensee Identified
- R = Reviewer Identified
- I = Equipment is qualified
- 2 = Aging is less than life of plant with licensee indicating periodic replacement

- 3 = Equipment requires modification (resolution, shielding, etc.)
- 4 = Qualification of equipment unresolved
- a) Testing schedule but not complete
- b) Reviewer needs additional information
- c) Qual. Record search still in process
- 5 = Equipment not qualified
- 6 = Item identified to EJB for resolution

REVIEWER *V. K. Smith* DATE *11/19/82*

FACILITY Sunbelt
 SYSTEM Main System

ATTACHMENT 1
 FOR IEN 79-018
 TEX

PAGE 1 OF 3

CES. No.	Equip. I. D.	Genetic Name	Acid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	License Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Relocate	Replace		

6-130	1474	FT										yes	4	3
6-131	1475	FT												
6-132	1484	FT												
6-133	1485	FT												
6-134	1494	FT												
6-135	1495	FT												
6-136	1464	PT												
6-137	1466	PT												
6-138	1468	PT												
6-139	1474	PT												
6-140	1475	PT												
6-141	1476	PT												

Code:

- 8 - Indicates the item is below the flood level
- 7 or 8 - Indicates the item is Not Applicable
- 6 - Indicates the item is Unresolved, Licensee Identified
- 5 - Proprietary
- 4 - Licensee Identified
- 3 - Reviewer Identified
- 2 - Aging to less than life of plant with license indicating periodic replacement

- 3 - Equipment requires modification (resolution, shielding, etc.)
- 4 - Qualification of equipment unresolved
- 5 - Testing schedule but not complete
- 6 - Reviewer needs additional information
- 7 - Qual. Record search still in process
- 8 - Equipment not qualified
- 9 - Item identified to RQR for resolution

REVIEWER W. J. ...
 DATE 11/19/82

CES. Page No.	Equip. I. D.	Generic Name	Acid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	License Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Replace	Relocate		
6-142	1484	PT										4s	7	3
6-143	1485	PT												
6-144	1486	PT												
6-145	1494	PT												
6-146	1495	PT												
6-147	1496	PT												
6-148	1498	SV										4s	7	3
6-149	1498	SV												
6-150	1498	SV												
6-151	1498	SV												
6-152	1498	SV												
6-153	1498	SV												

Code:

- B = Indicates the item is below the flood level
- or S = Indicates the item is Satisfactory
- or N = Indicates the item is Not Applicable
- UL = Indicates the item is Unresolved, Licensee Identified
- P = Proprietary
- L = Licensee Identified
- N = Reviewer Identified
- I = Equipment is qualified
- Z = Aging in less than life of plant with licensee indicating periodic replacement

3 = Equipment requires modification (resolution, shielding, etc.)

- 4 = Qualification of equipment unresolved
- a) Testing schedule but not complete
- b) Reviewer needs additional information
- c) Qual. Record search still in process
- 5 = Equipment not qualified
- 6 = Item identified as EPR for resolution

REVIEWER: W. Brown DATE: 11/19/80

REVIEWER *W. J. ...* DATE *11/19/80*

- B = Indicates the item is below the flood level
- or S = Indicates the item is satisfactory
- or N = Indicates the item is not applicable
- UL = Indicates the item is unresolved, license identified
- P = Proprietary
- L = License identified
- K = Reviewer identified
- I = Equipment is qualified
- Z = Aging is less than life of plant with license indicating periodic replacement

- 3 = Equipment requires modification (resolution, shielding, etc.)
- 4 = Qualification of equipment unresolved
 - a) Testing schedule but not complete
 - b) Reviewer needs additional information
 - c) Qual. Record search still in process
- 5 = Equipment not qualified
- 6 = Item identified to EPR for resolution

CES. Page No.	Equip. I. D. #	Generic Name	Acid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Subm.	Licenses Action		Outstanding Items Identified by	Category of Items
					Inside	Outside				Replace	Relocate		
6-154	109	SV									423	L	3
6-155	110	SV										R L	49c

FACILITY *Summit 1* SYSTEM *Maint. Steam*

FACILITY
SYSTEM

Surrey 1
outside circulation spray

ATTACHMENT 1
FOR IEB 79-018
TER

PAGE 1 OF 1

CES. Page No.	Equip. I. D.	Generic Name	Accid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Replace	Relocate		
6-156	P-2A	MTR	✓	4C	-	4C	46c	-	-	-	-	-	RL	46c
6-157	P-2B	MTR	✓	4C	-	4C	46c	-	-	-	-	-	RL	46c
6-158	155A	MOV	✓	4b	-	4C	46c	-	-	-	-	-	RL	46c
6-159	155B	MOV	✓	✓	-	✓	46c	-	-	-	-	-	RL	46c
6-160	156A	MOV	✓	✓	-	✓	46	-	-	-	-	-	RL	46c
6-161	156B	MOV	✓	✓	-	✓	46	-	-	-	-	-	RL	46c

Code:

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- ✓ or S = Indicates the item is Satisfactory
- or N = Indicates the item is Not Applicable
- UL = Indicates the item is Unresolved, Licensee identified
- P = Proprietary
- L = Licensee identified
- R = Reviewer identified
- 1 = Equipment is qualified
- 2 = Aging is less than life of plant with licensees indicating periodic replacement

- 3 = Equipment requires modification (resolution, shielding, etc.)
- 4 = Qualification of equipment unresolved
 - a) Testing schedule but not complete
 - b) Reviewer needs additional information
 - c) Qual. Record search still in process
- 5 = Equipment not qualified
- 6 = Item identified to EQB for resolution

REVIEWER VL Brownlee DATE 11/19/80

Surgery Plant Vent & Ducts

CES. Page No.	Equip. I. D. #	Generic Name	Acid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	License Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Replace	Relocate		
6-102	100A	SV											L	3
6-103	100B	SV											L	3
6-104	108A	SV											L	3
6-105	108B	SV	L	L	-	L	-	-	-	-	-	-	L	1
6-106	109A	SV											L	3
6-107	109B	SV											L	3

Code:

R = Indicates the item is below the flood level
 S = Indicates the item is Satisfactory
 or N = Indicates the item is Not Applicable
 UL = Indicates the item is Unresolved, Licensee Identified

P = Proprietary
 L = Licensee Identified
 R = Reviewer Identified
 I = Equipment is qualified
 2 = Aging in less than life of plant with Licensee
 indicating periodic replacement

3 = Equipment requires modification (resolution, shielding, etc.)
 4 = Qualification of equipment unresolved
 a) Testing schedule but not complete
 b) Reviewer needs additional information
 c) Qual. Record search still in process
 5 = Equipment not qualified
 6 = Item identified to EQR for resolution

REVIEWER *W. Brumby*
 DATE *11/19/80*

Spring 1 Radiation Monitoring

CES. Page NO.	Equip. I. D. #	Generic Name	Acid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action			Outstanding Items	Category of Items
					Inside	Outside					Replace	Relocate	Identified by		
6-168	100B	SV										425		L	3
6-169	100C	SV										425		L	3
6-170	100H	SV												R, L	46, c

Code:

- B - Indicates the item is below the flood level
- or S - Indicates the item is satisfactory
- or N - Indicates the item is Not Applicable
- UL - Indicates the item is Unresolved, Licensee identified
- P - Proprietary
- L - Licensee identified
- U - Reviewer identified
- I - Equipment is qualified
- 2 - Aging is less than life of plant with licensee indicating periodic replacement

- 3 - Equipment requires modification (resolution, shielding, etc.)
- 4 - Qualification of equipment unresolved
- a) Testing schedule but not complete
- b) Reviewer needs additional information
- c) Qual. Record search still in process
- 5 - Equipment not qualified
- 6 - Item identified to EPH for resolution

REVIEWER *W. Brown* DATE *11/19/80*

FACILITY
SYSTEM

Sierra 1
Reactor Coolant

ATTACHMENT 1
FOR IEB 79-01B
TER

PAGE 1 OF 3

CES. Page No.	Equip. I. D. #	Generic Name	Accid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action		Outstanding Items Identified by	Category of Items	
					Inside	Outside					Replace	Relocate			
6-171	1459	LT 1111										YES		L	3
6-172	1460	LT										↓		↓	↓
6-173	1461	LT										↓		↓	↓
6-174	1455	PT										YES		L	3
6-175	1456	PT										↓		↓	↓
6-176	1457	PT										↓		↓	↓
6-177	1410	TE	4b	4c	V	-	4c	-	V	-	-	-		R.L	4b,c
6-178	1412B	TE	↓	↓	↓	-	↓		↓					↓	↓
6-179	1412D	TE	↓	↓	↓	-	↓		↓					↓	↓
6-180	1413	TE	↓	↓	↓	-	↓		↓					↓	↓
6-181	1420	TE	↓	↓	↓	-	↓		↓					↓	↓
6-182	1422B	TE	↓	↓	↓	-	↓		↓					↓	↓

Code:

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- ✓ or S = Indicates the item is Satisfactory
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- UL = Indicates the item is Unresolved, Licensee identified
- P = Proprietary
- L = Licensee identified
- R = Reviewer identified
- 1 = Equipment is qualified
- 2 = Aging is less than life of plant with licensees indicating periodic replacement

- 3 = Equipment requires modification (resolution, shielding, etc.)
- 4 = Qualification of equipment unresolved
 - a) Testing schedule but not complete
 - b) Reviewer needs additional information
 - c) Qual. Record search still in process.
- 5 = Equipment not qualified
- 6 = Item identified to EQB for resolution

REVIEWER V. Brunsler DATE 11/19/80

FACILITY Sunny 1
 SYSTEM Reactor Coolant

ATTACHMENT 1
 FOR IEB 79-018
 TEM

CES. Page No.	Equip. I. D.	Generic Name	Accid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licenses Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Replace	Relocate		
6-183	1422D	TE	4b	4c	✓	-	4c	-	✓	-	-	-	R, L	4b,c
6-184	1423	TE	↓	↓	↓		↓		↓				↓	↓
6-185	1430	TE	↓	↓	↓		↓		↓				↓	↓
6-186	1432B	TE	↓	↓	↓		↓		↓				↓	↓
6-187	1432D	TE	↓	↓	↓		↓		↓				↓	↓
6-188	1433	TE	↓	↓	↓		↓		↓				↓	↓
6-189	1519A	SV	✓	4c	-	4c	4b,c	-	-	-	-	-	R, L	4b,c
6-190	1455C-1	SV	✓	4c	4c	-	4b,c	-	-	-	-	-	R, L	4b,c
6-191	1455C-1	SV	✓	↓	↓	-	↓	-	-	-	-	-	↓	↓
6-192	1455C-3	SV	✓	↓	↓	-	↓	-	-	-	-	-	↓	↓
6-193	1456-1	SV	✓	↓	↓	-	↓	-	-	-	-	-	↓	↓
6-194	1456-2	SV	✓	↓	↓	-	↓	-	-	-	-	-	↓	↓

Code:

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- ✓ or S = Indicates the item is Satisfactory
- or N = Indicates the item is Not Applicable
- UL = Indicates the item is Unresolved, Licenses identified
- P = Proprietary
- L = Licenses identified
- K = Reviewer identified
- 1 = Equipment is qualified
- 2 = Aging is less than life of plant with licenses indicating periodic replacement.

- 3 = Equipment requires modification (resolution, shielding, etc.)
- 4 = Qualification of equipment unresolved
 - a) Testing schedule but not complete
 - b) Reviewer needs additional information
 - c) Qual. Record search still in process
- 5 = Equipment not qualified
- 6 = Item identified to EQB for resolution

REVIEWER VeBrownlee DATE 11/19/80

CES. Page No.	Equip. I. D. #	Generic Name	Acid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licenses Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Replace	Relocate		
6-195	1450-3	SV ¹¹¹	L	4C 4C	-	49C	-	-	-	-	-	-	R. L.	49C
6-196	1535	MOV	L	4C 4C	-	49C	4C	-	-	-	-	-	R. L.	49C
6-197	1536	MOV	L	4C 4C	-	49C	-	-	-	-	-	-	R. L.	49C

Code:

- B = Indicates the item to be below the flood level
- or S = Indicates the item is satisfactory
- or N = Indicates the item is not applicable
- UL = Indicates the item is uninvolved, license identified
- P = Proprietary
- L = License identified
- M = Reviewer identified
- I = Equipment is qualified
- Z = Aging is less than life of plant with license

Indicating periodic replacement

- 3 = Equipment requires modification (resolution, shielding, etc.)
- 4 = Qualification of equipment unresolved
- a) Testing schedule but not complete
- b) Reviewer needs additional information
- c) Qual. Record search still in process
- 5 = Equipment not qualified
- 6 = Item identified to EPA for resolution

REVIEWER *W. Brumby*
 DATE *11/19/80*

FACILITY
 SYSTEM
 Survey / Inspection

ATTACHMENT 1
 FOR IER 79-018
 TER

PAGE 1 OF 4

CES. Page No.	Equip. I. D. #	Generic Acid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Subm.	Licensee Action			Outstanding Items Identified by Category of Items
				Inside	Outside				Replace	Relocate	Identified by	
6-198	P1A	MIR	L	HC	-	L	HC	-	-	-	-	4C
6-199	P1B	MIR	L	HC	-	L	HC	-	-	-	-	4C
6-200	1892	MIR	L	L	-	L	4B	-	-	-	-	4B
6-201	1860A	MIR	L	L	-	HC	4B	-	-	-	-	45A
6-202	1860B	MIR					4B	-	-	-	-	46C
6-203	1862A	MIR					4B	-	-	-	-	46C
6-204	1862B	MIR					4B	-	-	-	-	46C
6-205	1863A	MIR					4B	-	-	-	-	46C
6-206	1863B	MIR	↑	↑			4B	-	-	-	-	46C
6-207	1865A	MIR	L	HC	HC	HC	4C	-	-	-	-	46A
6-208	1865B	MIR	L	HC	HC	HC	4C	-	-	-	-	46C
6-209	1865C	MIR	L	HC	HC	HC	4C	-	-	-	-	46C

Code: 0 = Indicates the item is below the flood level
 1 = Indicates the item is satisfactory
 2 = Indicates the item is not applicable
 3 = Indicates the item is unresolved, licensee identified
 4 = Indicates the item is unresolved, licensee identified
 5 = Proprietary
 6 = Licensee identified
 7 = However identified
 8 = Equipment is qualified
 9 = Aging is less than life of plant with licensee including periodic replacement

3 = Equipment requires modification (resolution, shielding, etc.)
 4 = Qualification of equipment unresolved
 a) Testing schedule but not complete
 b) Reviewer needs additional information
 c) Qual. Record search still in process
 5 = Equipment not qualified
 6 = Item identified to EIR for resolution

REVIEWER: *W. Brown*
 DATE: 11/19/80

FACILITY Surry 1
 SYSTEM Safety Injection

ATTACHMENT 1
 FOR IEB 79-018
 TEM

PAGE 2 OF 4

CES. Page No.	Equip. I. D.	Generic Name	Accid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Replace	Relocate		
6-210	1867A	MOV	L	L	-	4C	4b	-	-	-	-	-	R, L	4b, c
6-211	1867B	MOV	L	L	-	4C	4b	-	-	-	-	-	R, L	4b, c
6-212	1867C	MOV	L	L	-	4C	4b	-	-	-	-	-	↓	↓
6-213	1867D	MOV	L	L	-	4C	4b	-	-	-	-	-	↓	↓
6-214	1867E	MOV	L	L	-	4C	4b	-	-	-	-	-	R, L	4b, c
6-215	1890A	MOV	L	L	-	4C	4b	-	-	-	-	-	R, L	4b, c
6-216	1890B	MOV	↓	↓	-	↓	↓	-	-	-	-	-	↓	↓
6-217	1890C	MOV	↓	↓	-	↓	↓	-	-	-	-	-	↓	↓
6-218	100	SU									yes		L	3
6-219	101A	SU	L	L	L	-	4b	-	-	-	-	-	R	4b
6-220	101B	SU									yes		L	3
6-221	102A1	SU	L	L	-	L	4b	-	-	-	-	-	R	4b

Code:

- B = Indicates the item is below the flood level
- ✓ or S = Indicates the item is Satisfactory
- or N = Indicates the item is Not Applicable
- UL = Indicates the item is Unresolved, Licensee identified
- P = Proprietary
- L = Licensee identified
- K = Reviewer identified
- 1 = Equipment is qualified
- 2 = Aging is less than life of plant with licensee indicating periodic replacement

- 3 = Equipment requires modification (resolution, shielding, etc.)
- 4 = Qualification of equipment unresolved
 - a) Testing schedule but not complete
 - b) Reviewer needs additional information
 - c) Qual. Record search still in process
- 5 = Equipment not qualified
- 6 = Item identified to EQB for resolution

REVIEWER V. Brumley DATE 11/19/80

Sentry
Sentry Inspection

CES. No.	Page	I. D.	Equip. Name	Genetic Profile	Acid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action			Outstanding Items Identified by	Category of Items
							Inside	Outside					Relocate	Replace			
6-222	10222		SV						4C							R.L.	49C
6-223	10281		SV						L							R	4B
6-224	10282		SV						L							R.L.	49C
6-225	18844		SV						L							R.L.	49C
6-226	18848		SV						L							R.L.	49C
6-227	1884C		SV						L							R.L.	49C
6-228	1884H		MOV						L							R.L.	49C
6-229	1884B		MOV						L							R.L.	49C
6-230	1884B		MOV						L							R.L.	49C
6-230A	1885H		MOV						L							R.L.	49C
6-230R	1885B		MOV						L								
6-230C	1885C		MOV						L								

Code: 1 - Indicates the item is below the food level
 2 - Indicates the item is satisfactory
 3 - or 4 - Indicates the item is not applicable
 5 - or 6 - Indicates the item is unresolved, licensee identified

- 1 - Licenses identified
- 2 - Proprietary
- 3 - Reviewer identified
- 4 - Equipment in qualified
- 5 - Aging in less than life of plant with licensee
- 6 - Indicating periodic replacement

- 1 - Item identified to RFB for resolution
- 2 - Equipment not qualified
- 3 - Qual. record needs additional information
- 4 - Testing schedule but not complete
- 5 - Qualification of equipment unresolved
- 6 - Equipment requires modification (resolution, shielding, etc.)

REVIEWER: *W. Brown* DATE: *11/19/80*

FACILITY

Surry 1

SYSTEM

Safety Inspection

ATTACHMENT 1
FOR IEB 79-018
TER

PAGE 4 OF 4

CES. Page No.	Equip. I. D.	Generic Name	Accid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Replace	Relocate		
6-230d	1885D	M24 1885D	L	4C	-	4C	4/2C	-	-	-	-	-	R, L	4/2C

Code:

- B = Indicates the item is below the flood level
- ✓ or S = Indicates the item is Satisfactory
- or N = Indicates the item is Not Applicable
- UL = Indicates the item is Unresolved, Licensee identified
- P = Proprietary
- L = Licensee identified
- R = Reviewer identified
- 1 = Equipment is qualified
- 2 = Aging is less than life of plant with licensee indicating periodic replacement

- 3 = Equipment requires modification (resolution, shielding, etc.)
- 4 = Qualification of equipment unresolved
 - a) Testing schedule but not complete
 - b) Reviewer needs additional information
 - c) Qual. Record search still in process
- 5 = Equipment not qualified
- 6 = Item identified to EQB for resolution

REVIEWER V. Brownlee DATE 11/19/80

FACILITY Sunny 1
 SYSTEM Sampling

ATTACHMENT 1
 FOR IEB 79-018
 TER

CES. Page No.	Equip. I. D.	Generic Name	Accid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Replace	Relocate		
6-231	100A1	SV	L	4C	4C	-	4b,c	4C	-	-	-	-	L	4b,c
6-232	100B1	SV	L	L	-	L	4b	-	-	-	-	-	R	4b
6-233	101A1	SV	L	4b	4b	-	4b	-	-	-	-	-	R	4b
6-234	101C1	SV	L	4b	-	4b	4b	-	-	-	-	-	R	4b
6-235	102A1	SV	L	4b	4b	-	4b	-	-	-	-	-	R	4b
6-236	102B1	SV	L	4b	-	4b	4b	-	-	-	-	-	R	4b
6-237	103	SV	L	L	-	4b	4b	-	-	-	-	-	R	4b
6-238	104A	SV										yes	L	3
6-239	104B	SV	L	L	-	4b	4b	-	-	-	-	-	R	4b
6-240	106A	SV										yes	L	3
6-241	106B	SV	L	L	-	4b	4b	-	-	-	-	-	R	R 4b

Code:

- B = Indicates the item is below the flood level
- ✓ or S = Indicates the item is Satisfactory
- or N = Indicates the item is Not Applicable
- UL = Indicates the item is Unresolved, Licensee identified
- P = Proprietary
- L = Licensee identified
- K = Reviewer identified
- 1 = Equipment is qualified
- 2 = Aging is less than life of plant with licensee indicating periodic replacement

- 3 = Equipment requires modification (resolution, shielding, etc.)
- 4 = Qualification of equipment unresolved
 - a) Testing schedule but not complete
 - b) Reviewer needs additional information
 - c) Qual. Record search still in process
- 5 = Equipment not qualified
- 6 = Item identified to EQB for resolution

REVIEWER V. Brunker DATE 11/19/80

FACILITY
SYSTEM

Sunny 1
Service Water

ATTACHMENT 1
FOR IEB 79-018
TER

PAGE 1 OF 1

CES. Page No.	Equip. I. D.	Generic Name	Accid. Profile	Qual. Profile	Radiation Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subs.	Licensee Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Replace	Relocate		
6-242	104A	MOV	L	L	-	L	46	-	-	-	-	-	R	46
6-243	104B	MOV	L	L	-	L	45	-	-	-	-	-	R	46
6-244	104C	MOV	L	L	-	L	45	-	-	-	-	-	R	46
6-245	104D	MOV	L	L	-	L	45	-	-	-	-	-	R	46
6-246	105A	MOV	L	L	-	L	45	-	-	-	-	-	R	46
6-247	105B	MOV	L	L	-	L	46	-	-	-	-	-	R	46
6-248	105C	MOV	L	L	-	L	46	-	-	-	-	-	R	46
6-249	105D	MOV	L	L	-	L	46	-	-	-	-	-	R	46
6-250	P-5A	MTR										Yes		3
6-251	P-5B	MTR										Yes		3
6-252	P-5C	MTR										Yes		3
6-253	P-5D	MTR										Yes		3

see pg 7-27

Code:

- B - Indicates the item is below the flood level
- ✓ or S - Indicates the item is Satisfactory
- or N - Indicates the item is Not Applicable
- UL - Indicates the item is Unresolved, Licensee identified
- P - Proprietary
- L - Licensee identified
- R - Reviewer identified
- 1 - Equipment is qualified
- 2 - Aging is less than life of plant with licensee indicating periodic replacement

- 3 - Equipment requires modification (resolution, shielding, etc.)
- 4 - Qualification of equipment unresolved
 - a) Testing schedule but not complete
 - b) Reviewer needs additional information
 - c) Qual. Record search still in process
- 5 - Equipment not qualified
- 6 - Item identified to EQB for resolution

REVIEWER V. Brownlee DATE 11/19/80

FACILITY Sunny
 SYSTEM San Gen. Chlorine

ATTACHMENT 1
 FOR IER 79-01B
 TLR

PAGE 1

OF 1

CES. No.	Equip. I. D.	Generic Name	Acid. Profile	Qual. Profile	Maintenance Qual. Containment		Qual. Method	Chem. Spray	Accur.	Subm.	Licensee Action		Outstanding Items Identified by	Category of Items
					Inside	Outside					Replace	Relocate		
6-254	100A	SV										yes		3
6-255	100B	SV										yes		3
6-256	100C	SV										yes		3
6-257	100D	SV										yes		3
6-258	100E	SV										yes		3
6-259	100F	SV										yes		3

Code:

- 0 = Indicates the item is below the flood level
- 1 = Indicates the item is satisfactory
- 2 = or N = Indicates the item is Not Applicable
- UL = Indicates the item is Unresolved, Licensee identified
- R = Proprietary
- L = Licensee identified
- K = Reviewer identified
- I = Equipment is qualified
- 2 = Aging is less than life of plant with licensee indicating periodic replacement

- 3 = Equipment requires modification (resolution, shielding, etc.)
- 4 = Qualification of equipment unresolved
- a) Testing schedule but not complete
- b) Reviewer needs additional information
- c) Qual. Record search still in process
- 5 = Equipment not qualified
- 6 = Item identified to EPR for resolution

REVIEWER V. Brown
 DATE 11/15/80

Surry 1

Attachment 4 Notes

1. Item to be replaced; licensee identified disposition schedule is identified on specific CES or Section 7 and the Response to Supplement 2, 79-01B Section of the report.
2. Testing scheduled but not complete, or qualification record search is still in progress; licensee identified.

Codes:

- SV - Solenoid Valve
- MOV - Motor Operated Valve
- MTR - Motor
- FCV - Flow Control Valve
- FT - Flow Transmitter
- MCC - Motor Control Center
- EPA - Electrical Penetration Assembly
- CBL - Cable
- LT - Level Transmitter
- HC - Hydrogen Combiner
- HA - Hydrogen Analyzer
- PWR SUP - Power Supply
- DMPR - Damper
- TE - Temperature Element
- PT - Pressure Transmitter

ATTACHMENT 2
 FUNCTIONS/SYSTEMS LIST
 (W) PWR
 Needed For Mitigation Of Consequences
 Of LOCA Or MSLB

- * 1. Reactor Protection
- * 2. Safeguards Actuation
- * 3. Containment Isolation
- ✓ 4. Main and Auxiliary Steam Isolation
- ✓ 5. Main and Auxiliary Feedwater Isolation
- ✓ 6. Feedwater Control
- ✓ 7. Containment Spray
- ✓ 8. Containment Air Purification/Cleanup
- ✓ 9. Containment Ventilation/Cooling
- ✓ 10. Containment ~~Control~~ Gas Control
- ✓ 11. High Pressure Injection
- ✓ 12. Low Pressure Injection
- * 13. Accumulators
- * 14. Residual Heat Removal
- ✓ 15. Chemical and Volume Control
- * 16. Pressurizer Spray
- * 17. Power Operated Relief Valves
- * 18. Steam Dump
- ✓ 19. Containment Radiation/Monitoring
- ✓ 20. Containment Radiation/Sampling
- ✓ 21. Component Cooling Water
- ✓ 22. Service Water
- ✓ 23. Emergency Power
- * 24. Containment Sump
- ✓ 25. Control Room Habitability (See unit 2 Report - Common System)
- ✓ 26. Safety Equipment Area Ventilation
- ✓ 27. Auxiliary Feedwater
- ✓ 28. Reactor Coolant
- ✓ 29. Condenser Air Removal to Containment
- ✓ 30. Containment Vacuum Control
- ✓ 31. Instrument Air
- ✓ 32. Steam Generator Blowdown

ATTACHMENT 3 (SUMMARY)

SECTION 8

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6. Limitorque Corporation, Nuclear Qualification Data for Safety Related Service, NQDS, November 1, 1979.
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10. Anderson to Stolz (Test), Westinghouse Electric Corporation.
11. Steigelmann, W.H., Witcher, L., Test of Electrical Cables Under Simulated Post-Accident Reactor Containment Service, Franklin Institute Research Laboratories, Final Report F-C2857, September 1970.
12. Chapman, L., Stone, J., Tests of Electric Cables After Simulated Post-Accident Reactor Containment Service, Cerro Wire and Cable Company, a Supplement to Franklin Institute Research Laboratories Final Report F-C2857, March 1970.
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23. Sheets, M.W., Topical Report on General Electric Vertical Induction Motors, Inside Containment Recirculation Spray Pump Motors - Surry Power Station - Second Addendum to Cover Heat Aging, Radiation Exposure, Vibration, and Steam/Chemical Spray Exposure Qualification Test, NRC Docket Nos. 50-280 and 50-281, June 12, 1973 and July 23, 1973.
24. General Electric Company, Inc., Vertical Motor Products Section, San Jose, California, June 12, 1973, pp 36-64.
25. Automatic Switch Company, 3- and 4-Way Solenoid Valves, Catalog No. NP-1, March 1978.
26. Westinghouse Electric Corporation, Westinghouse Electric Hydrogen Recombiner, Technical Manual.

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37. Cerro Wire and Cable Company, Qualification of Firewall III Class IE Electrical Cables, May 1976.

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01-80

Surry 1

Attachment 4

OUTSTANDING ITEMS

As Identified By

Licensee

C E S Page No.	ITEM (See Code)	DISPOSITION				Disposition Schedule, Notes
		Replace	Modify	Ongoing Analysis	Other	
6-1	SV			✓		2
6-2	MOV			✓		2
6-3	MOV			✓		2
6-4	MOV			✓		2
6-5	MOV			✓		2
6-6	MOV			✓		2
6-7	MTR			✓		2
6-8	MTR			✓		2
6-9	MTR-			✓		2
6-10	FCV			✓		2
6-11	FT	✓				1
6-12	SV	✓				1
6-13	MOV			✓		2
6-14	MOV			✓		2
6-15	MOV			✓		2
6-16	MOV			✓		2
6-17	MOV			✓		2

Attachment 4
 OUTSTANDING ITEMS
 As Identified By
 Licensee

C E S Page No.	ITEM (See Code)	DISPOSITION				Disposition Schedule, Notes
		Replace	Modify	Ongoing Analysis	Other	
6-18	MOV			✓		2
6-19	SU	✓				1
6-20	SU			✓		2
6-21	SU			✓		2
6-22	SU			✓		2
6-23	MCC			✓		2
6-24	MCC			✓		2
6-25	MCC			✓		2
6-26	MCC			✓		2
6-27	EPA			✓		2
6-28	EPA			✓		2
6-29	EPA			✓		2
6-30	EPA			✓		2
6-31	EPA			✓		2
6-33	CBL			✓		2

Attachment 4

OUTSTANDING ITEMS

As Identified By

Licensee

C E S Page No.	ITEM (See Code)	DISPOSITION				Disposition Schedule, Notes
		Replace	Modify	Ongoing Analysis	Other	
6-36	CBL			✓		2
6-37	CBL			✓		2
6-38	CBL			✓		2
6-39	CBL			✓		2
6-40	CBL			✓		2
6-42	CBL			✓		2
6-43	EPA			✓		2
6-44	EPA			✓		2
6-45	EPA			✓		2
6-46	EPA			✓		2
6-47	TE			✓		2
6-48	CBL			✓		2
6-49	CBL			✓		2
6-50	CBL			✓		2
6-51	CBL			✓		2
6-52	CBL			✓		2
6-53	CBL			✓		2

Attachment 4
 OUTSTANDING ITEMS
 As Identified By
 Licensee

C E S Page No.	ITEM (See Code)	DISPOSITION				Disposition Schedule, Notes
		Replace	Modify	Ongoing Analysis	Other	
6-54	CCL			✓		2
6-58	CPL			✓		2
6-59	CBL			✓		2
6-60	CBL			✓		2
6-61	MTR	✓				1
6-62	MTR	✓				1
6-63	SU	✓				1
6-64	SU	✓				1
6-65	SU-	✓				1
6-66	SU	✓				1
6-67	SU	✓				1
6-68	SU	✓				1
6-69	SU	✓				1
6-70	SU	✓				1
6-71	SU	✓				1
6-80	SU	✓				1
6-81	SU	✓				1

Attachment 4
 OUTSTANDING ITEMS
 As Identified By
 Licensee

C E S Page No.	ITEM (See Code)	DISPOSITION				Disposition Schedule, Notes
		Replace	Modify	Ongoing Analysis	Other	
6-82	SU	✓				1
6-83	SU	✓				1
6-84	FT	✓				1
6-85	FT	✓				1
6-86	FT	✓				1
6-87	LT	✓				1
6-88	LT	✓				1
6-89	LT	✓				1
6-90	LT	✓				1
6-91	LT	✓				1
6-92	LT	✓				1
6-93	LT	✓				1
6-94	LT	✓				1
6-95	LT	✓				1
6-96	MOV			✓		2
6-97	MOV			✓		2
6-98	MOV			✓		2

Attachment 4
 OUTSTANDING ITEMS
 As Identified By
 Licensee

C E S Page No.	ITEM (See Code)	DISPOSITION				Disposition Schedule, Notes
		Replace	Modify	Ongoing Analysis	Other	
6-99	MOV			✓		2
6-100	MOV			✓		2
6-101	MOV			✓		2
6-102	HC			✓		2
6-103	HC			✓		2
6-104	HA	✓				1
6-105	PS			✓		2
6-106	PS			✓		2
6-107	MTR			✓		2
6-108	MTR			✓		2
6-109	DMPR			✓		2
6-110	DMPR			✓		2
6-113	SU	✓				1
6-114	SU			✓		2
6-115	SU	✓				1
6-116	PT	✓				1
6-117	PT	✓				1

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C E S Page No.	ITEM (See Code)	DISPOSITION				Disposition Schedule, Notes
		Replace	Modify	Ongoing Analysis	Other	
6-118	PT	✓				1
6-119	PT	✓				1
6-120	SU	✓				1
6-121	SU	✓				1
6-122	SU	✓				1
6-123	SU	✓				1
6-124	SU	✓				1
6-125	SU	✓				1
6-126	SU	✓				1
6-127	SU	✓				1
6-128	SU	✓				1
6-129	SU	✓				1
6-130	FT	✓				1
6-131	FT	✓				1
6-132	FT	✓				1
6-133	FT	✓				1
6-134	FT	✓				1

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C E S Page No.	ITEM (See Code)	DISPOSITION				Disposition Schedule, Notes
		Replace	Modify	Ongoing Analysis	Other	
6-135	FT	✓				1
6-136	PT	✓				1
6-137	PT	✓				1
6-138	PT	✓				1
6-139	PT	✓				1
6-140	PT	✓				1
6-141	PT	✓				1
6-142	PT	✓				1
6-143	PT	✓				1
6-144	PT	✓				1
6-145	PT	✓				1
6-146	PT	✓				1
6-147	PT	✓				1
6-148	SU	✓				1
6-149	SU	✓				1
6-150	SU	✓				1
6-151	SU	✓				1

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C E S Page No.	ITEM (See Code)	DISPOSITION				Disposition Schedule, Notes
		Replace	Modify	Ongoing Analysis	Other	
6-152	SV	✓				1
6-153	SV	✓				1
6-154	SV	✓				1
6-155	SV			✓		2
6-156	MTR			✓		2
6-157	MTR			✓		2
6-158	MOV			✓		2
6-159	MOV			✓		2
6-160	MOV			✓		2
6-161	MOV			✓		2
6-162	SV	✓				1
6-163	SV	✓				1
6-164	SV	✓				1
6-166	SV	✓				1
6-167	SV	✓				1
6-148	SV	✓				1
6-169	SV	✓				1

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C E S Page No.	ITEM (See Code)	DISPOSITION				Disposition Schedule, Notes
		Replace	Modify	Ongoing Analysis	Other	
6-170	SV			✓		2
6-171	LT	✓				1
6-172	LT	✓				1
6-173	LT	✓				1
6-174	PT	✓				1
6-175	PT	✓				1
6-176	PT	✓				1
6-177	TE			✓		2
6-178	TE			✓		2
6-179	TE			✓		2
6-180	TE			✓		2
6-181	TE			✓		2
6-182	TE			✓		2
6-183	TE			✓		2
6-184	TE			✓		2
6-185	TE			✓		2
6-186	TE			✓		2

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C E S Page No.	ITEM (See Code)	DISPOSITION				Disposition Schedule, Notes
		Replace	Modify	Ongoing Analysis	Other	
6-187	TE			✓		2
6-188	TE			✓		2
6-189	SU			✓		2
6-190	SU			✓		2
6-191	SU			✓		2
6-192	SU			✓		2
6-193	SU			✓		2
6-194	SU			✓		2
6-195	SU -			✓		2
6-196	MOV			✓		2
6-197	MOV			✓		2
6-198	MTR			✓		2
6-199	MTR			✓		2
6-201	MOV			✓		2
6-202	MOV			✓		2
6-203	MOV			✓		2
6-204	MOV			✓		2

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C E S Page No.	ITEM (See Code)	DISPOSITION				Disposition Schedule, Notes
		Replace	Modify	Ongoing Analysis	Other	
6-205	MOU			✓		2
6-206	MOU			✓		2
6-207	MOU			✓		2
6-208	MOU			✓		2
6-209	MOU			✓		2
6-210	MOU			✓		2
6-211	MOU			✓		2
6-212	MOU			✓		2
6-213	MOU			✓		2
6-214	MOU			✓		2
6-215	MOU			✓		2
6-216	MOU			✓		2
6-217	MOU			✓		2
6-218	SV	✓				1
6-220	SV	✓				1
6-222	SV			✓		2
6-224	SV			✓		2

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C E S Page No.	ITEM (See Code)	DISPOSITION				Disposition Schedule, Notes
		Replace	Modify	Ongoing Analysis	Other	
6-225	SV			✓		2
6-226	SV			✓		2
6-227	SU			✓		2
6-228	MOV			✓		2
6-229	MOV			✓		2
6-230	MOV			✓		2
6-230a	MOV			✓		2
6-230b	MOV			✓		2
6-230c	MOV-			✓		2
6-230d	MOV			✓		2
6-231	SV			✓		2
6-238	SV	✓				1
6-240	SV	✓				1
6-250	MTR	✓				1
6-251	MTR	✓				1
6-252	MTR	✓				1
6-253	MTR	✓				1

