PSR

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50193

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-041-005

Category: 53 Confidentiality: _YES _NO (I&H)

Supervisor Notified: _X_YES ___NO NUCLEAR SAFETY RELATED YES

Concern: THERE IS NO DOCUMENTATION IDENTIFYING WHERE AND WHEN PROTECTIVE COATINGS HAVE BEEN APPLIED. CI HAS NO ADDITIONAL INFORMATION. NUC. POWER DEPT. CONCERN.

O. B. Thess 11/6/85
MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS __✓___

OTHERS (SPECIFY) _____

Construction Control

Bruce P. Leaf 11/7/85
NSRS DATE

Wong 12

PSF

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50193

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-041-006

Category: 7 Confidentiality: _YES _NO (I&H)

Supervisor Notified: _X_YES ___NO NUCLEAR SAFETY RELATED YES

Concern: AWS WELD INSPECTOR(S) (UNKNOWN) DID NOT UNDERSTAND THE "5 MIL" PROVISION FOR INSPECTION OF COATED (CARBO-ZINC PRIMER) WELDS AS CONTAINED IN REVISIONS OF SPECIFICATION G-29C, PROCEDURE QCP-4.13, AND MEMORANDUM DATED NOVEMBER 1981. INSPECTOR(S) REFERRED TO CRITERIA AS "MILLIAMPS" AND THEREFORE COULD NOT HAVE IMPLEMENTED/INSPECTED FOR CONFORMANCE. CI HAS NO ADDITIONAL INFORMATION. NUC POWER DEPT. CONCERN.

O B Thero 11/16/85
MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS ___✓___ EC46

OTHERS (SPECIFY) _____

Waldrop
Inspector

Bruce L. Steffen 11/22/85
NSRS DATE

Mong 16

PSR

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50193

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-041-008

Category: 20 Confidentiality: _YES _NO (I&H)

Supervisor Notified: _X_YES ___NO NUCLEAR SAFETY RELATED YES

Concern: PROCESS SPECIFICATION #3.C.5.4 OF G-29C PERMITTED INSPECTION OF AWS WELDS THROUGH COATING (CARBO-ZINC PRIMER) FOR ELEVEN MONTHS AFTER ENGINEERING EVALUATION/TEST SHOWED THAT WELD QUALITY (POROSITY, CRACKS, ETC) COULD NOT BE INSPECTED THROUGH PAINT. NUC POWER DEPT. CONCERN. CI HAS NO ADDITIONAL INFORMATION.

O R Thies 11/16/85

MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS ___✓___ EG&G

OTHERS (SPECIFY) _____

welding inspection

Bruce L. Leighton 11/24/85

NSRS DATE

Trans 16 PSK

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50193

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-041-009

Category: 33 Confidentiality: _YES _NO (I&H)

Supervisor Notified: _X_YES ___NO NUCLEAR SAFETY RELATED YES

Concern: MATERIAL TRACEABILITY PROBLEMS INVOLVING WELD FILLER MATERIAL CONTROL HAVE BEEN SUPPRESSED BY TVA MANAGEMENT. (NAME KNOWN) CI HAS NO ADDITIONAL INFORMATION. NUC. POWER DEPT. CONCERN.

O K Thomas 11/6/85
MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS ___✓___ EGT6

OTHERS (SPECIFY) _____

Walkdown Rod

Bruce L. Leighton 11/12/85
NSRS DATE

may 11

PSF

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50193

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-041-010

Category: 37 Confidentiality: _YES _NO (I&H)

Supervisor Notified: _X_YES ___NO NUCLEAR SAFETY RELATED YES

Concern: CRAFT PERSONNEL (NO SPECIFICS) OTHER THAN PAINTERS APPLIED SPRAY PAINT AND/OR OTHER COATINGS TO AWS WELDS (NO SPECIFICS) PRIOR TO INSPECTION IN AN ATTEMPT TO MAKE DETECTION OF DEFECTS MORE DIFFICULT FOR INSPECTORS. PAINT/COATINGS WERE NOT THE PRODUCT SPECIFIED FOR THE INSTALLATION (CARBO-ZINC), BUT WERE OF SIMILAR COLOR. NUC. POWER DEPT. CONCERN. CI HAS NO ADDITIONAL INFORMATION.

O D Kelly 11/16/85

MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS __V____ E 616

OTHERS (SPECIFY) _____

Welding Inspection

Bruce L. Crafton 11/22/85

NSRS DATE

FSR

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50193

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-041-011

Category: 15 Confidentiality: _YES _NO (I&H)

Supervisor Notified: _X_YES ___NO NUCLEAR SAFETY RELATED YES

Concern: REVIEW OF BROWNS FERRY, CHATTANOOGA, SEQUOYAH, AND WATTS BAR PROCUREMENT ACTIVITIES WAS COMPLETED IN SEPTEMBER 1984, BUT NSRS REVIEW OF THE RESULTS OF WATTS BAR PROCUREMENT ACTIVITIES WAS EXCLUDED FROM THE APRIL 1985 REPORT BECAUSE OF UPCOMING LICENSING ACTIVITIES. NUC. POWER DEPT. CONCERN. CI HAS NO ADDITIONAL INFORMATION.

O L Pless 11/14/85
MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT _✓_

NSRS/ERT _____

NSRS ______

~~OTHERS~~ (SPECIFY) OGM

Bruce A. Wilson 11/22/85
NSRS DATE

may 16

PSR

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50193

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-041-012

Category: 33 Confidentiality: _YES _NO (I&H)

Supervisor Notified: _X_YES ___NO NUCLEAR SAFETY RELATED YES

Concern: TVA MISINFORMED NRC/NRR ABOUT ASME WELD FILLER MATERIAL CONTROL. CONTRARY TO ENCLOSURE 1 TO NRC LETTER DATED JAN. 23, 1984 (NEB 840216218), "...ASME CLASS 1 PIPE WELDING (E.G. REACTOR COOLANT PIPING)..." DOES NOT HAVE ..."TRACEABILITY AS TO HEAT AND LOT NUMBER ON THE WELD JOINT CONTROL DOCUMENTATION." CI HAS NO FURTHER INFORMATION. NUC. POWER DEPT. CONCERN.

O K Rees 11/18/85
MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS _✓_____ EG&G

OTHERS (SPECIFY) _____

Waldrop

Rod

Bruce L. Siegfried 11/27/85
NSRS DATE

PSR

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50193

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-041-013

Category: 5 Confidentiality: _YES _NO (I&H)

Supervisor Notified: _X_YES ___NO NUCLEAR SAFETY RELATED YES

Concern: QC INSPECTION FOR FIT-UP OF MISCELLANEOUS STEEL WAS DELETED FROM PROCEDURES IN AUG/SEPT 1984. NSRS WAS REQUESTED TO REVIEW THIS ACTION BUT MAY NOT HAVE PURSUED THE ISSUE. NUC. POWER DEPT. CONCERN. CI HAS NO ADDITIONAL INFORMATION.

O A Reed 11/6/85
MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS __✓___

OTHERS (SPECIFY) _____

Civil Inspection

Bruce L. Lieblen 11/7/85
NSRS DATE

PSR

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50193

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-041-014

Category: 29 Confidentiality: _YES _NO (I&H)

Supervisor Notified: _X_YES ___NO NUCLEAR SAFETY RELATED YES

Concern: A-36 STRUCTURAL STEEL IS NOT MARKED WITH HEAT/LOT NUMBER AND IS THEREFORE NOT TRACEABLE. CI HAS NO ADDITIONAL INFORMATION. NUC. POWER DEPT. CONCERN.

O K Thero 11/6/85
MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS ___/___

OTHERS (SPECIFY) _____

material Control

Bruce L. Scaffen 11/22/85
NSRS DATE

P51

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50197

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-091-005

Category: 53 Confidentiality: _YES _NO (I&H)

Supervisor Notified: __YES _X_NO NUCLEAR SAFETY RELATED YES

Concern: EMPLOYEES HAVE BEEN DIRECTED TO PERFORM AN INSTALLATION WITHOUT THE APPLICABLE FCR OF FF. CI HAS NO FURTHER INFORMATION. CONSTRUCTION DEPT. CONCERN.

William S. Lee NOV 19 1985

MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS __✓___

OTHERS (SPECIFY) _____

Construct Contract

Bruce L. Lieffer 11/22/85

NSRS DATE

FSR

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50197

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-091-006

Category: 14 Confidentiality: _YES _NO (I&H)

Supervisor Notified: __YES _X_NO NUCLEAR SAFETY RELATED YES

Concern: HANGERS ARE FREQUENTLY INSTALLED AND THEN ENGINEERING DOES THE AS-CONSTRUCTED DRAWING. CI HAS NO FURTHER INFORMATION. CONSTRUCTION DEPT. CONCERN.

W. Shain S. Sekas NOV 19 1985

MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS __✓___

OTHERS (SPECIFY) _____

Hanger Install

R. P. Griffin 11/21/85

NSRS DATE

PSR

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50197

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-091-008

Category: 52 Confidentiality: _YES _NO (I&H)

Supervisor Notified: __YES _X_NO NUCLEAR SAFETY RELATED YES

Concern: MISSING OR UN-INSTALLED HANGERS WERE FOUND. THESE HANGERS HAD NEVER BEEN DESIGNED AS BEING A PART OF A SPECIFIC SYSTEM YET WHEN A FORTY FOOT SPAN OF PIPE OCCURS WITH NO SUPPORT IT IS OBVIOUS THERE IS A DESIGN ERROR. CI HAS NO FURTHER INFORMATION. CONSTRUCTION DEPT. CONCERN.

William L. Stokes NOV 19 1985

MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS __✓___

OTHERS (SPECIFY) _____

Hanger Install

Bruce L. Siegfried 11/22/85

NSRS DATE

groups 16

PSR

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50197

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-091-010

Category: 31 Confidentiality: _YES _NO (I&H)

Supervisor Notified: __YES _X_NO NUCLEAR SAFETY RELATED YES

Concern: HEAT NUMBERS HAVE BEEN CHANGED WITHOUT QUALITY'S KNOWLEDGE. CI HAS NO FURTHER INFORMATION. CONSTRUCTION DEPT. CONCERN.

William S. Seber NOV 19 1985

MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS __✓___

OTHERS (SPECIFY) _____

Material control

Bruce L. Loftin 11/22/85

NSRS DATE

Maybe

PSR

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50197

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-091-011

Category: 53 Confidentiality: _YES _NO (I&H)

Supervisor Notified: __YES _X_NO NUCLEAR SAFETY RELATED YES

Concern: TVA IS NOT COMMITTED TO FOLLOWING PROCEDURES. THEY FOLLOW THE PROCEDURES WHEN IT SUITS THEM TO DO SO. CI HAS NO FURTHER INFORMATION. CONSTRUCTION DEPT. CONCERN.

NOV 19 1985

MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS __✓___

OTHERS (SPECIFY) _____

Construct Control

NSRS DATE 11/22/85

PSR

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50197

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-091-013

Category: 52 Confidentiality: _YES _NO (I&H)

Supervisor Notified: __YES _X_NO NUCLEAR SAFETY RELATED YES

Concern: TVA IS FABRICATING BERGEN PATTERSON PARTS TO A BERGEN PATTERSON DRAWING; ESPECIALLY PIPE CLAMPS. IT IS NOW DIFFICULT OR IMPOSSIBLE TO DETERMINE WHICH PIPE CLAMPS, AND OTHER PARTS, WERE MADE BY BERGEN PATTERSON OR FABRICATED BY TVA. CI HAS NO FURTHER INFORMATION. CONSTRUCTION DEPT. CONCERN.

William S. Lester NOV 19 1985

MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS _U____

OTHERS (SPECIFY) _____

Hanger Install

Bruce L. Siefken 11/23/85

NSRS DATE

Maxis

PSR

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50197

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-091-014

Category: 53 Confidentiality: _YES _NO (I&H)

Supervisor Notified: __YES _X_NO NUCLEAR SAFETY RELATED YES

Concern: TVA HAS VERY POOR CONTROL OVER SNUBBERS IN THE MANNER IN WHICH THEY ARE STORED AND HANDLED. THESE EXPENSIVE SNUBBERS ARE FREQUENTLY SCRAPPED AND LATER RETRIEVED FROM THE SCRAP YARD FOR INSTALLATION. CI HAS NO FURTHER INFORMATION. CONSTRUCTION DEPT. CONCERN.

William L. Lee NOV. 19 1985

MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS __✓___

OTHERS (SPECIFY) _____

material control

Bruce F. Crofton 11/22/85

NSRS DATE

PSC

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50197

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-091-015

Category: 53 Confidentiality: _YES _NO (I&H)

Supervisor Notified: __YES _X_NO NUCLEAR SAFETY RELATED YES

Concern: TVA LEAVES TOO MANY TECHNICAL DECISIONS UP TO THE CRAFTS' DISCRETION, E.G. CRAFT DESIGN THE HANGER AND THEN ENGINEERING DOES THE AS-CONSTRUCTED DRAWING. CI HAS NO FURTHER INFORMATION. CONSTRUCTION DEPT. CONCERN.

William S. Lee NOV 19 1985

MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS __✓___

OTHERS (SPECIFY) _____

Hanger Install

Bruce L. Siefken 11/22/85

NSRS DATE

P5[illegible]

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50196

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-091-017

Category: 87 Confidentiality: _YES _NO (I&H)

Supervisor Notified: __YES _X_NO NUCLEAR SAFETY RELATED YES

Concern: TVA IS NOT COMMITTED TO SAFETY OF THE PLANT AND THEY ARE NOW TRYING TO GET THE PAPERWORK CORRECT. THEY ARE COVERING UP THEIR DEFICIENCIES WITH A "BAND-AIDE". CONSTRUCTION DEPT. CONCERN. CI HAS NO FURTHER INFORMATION.,

W. Thomas Stokes 11/20/85

MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS _✓___

OTHERS (SPECIFY) _____

QA effort

Bruce L. Crofton 11/22/85

NSRS DATE

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50190

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-097-001

Category: 58 Confidentiality: _YES _NO (I&H)

Supervisor Notified: ___YES ___NO NUCLEAR SAFETY RELATED YES

Concern: WELD OPERATION SHEETS REFLECT INCORRECT ENTRIES. ERCW LINE, UNIT 1. DETAILS KNOWN TO QTC, WITHHELD DUE TO CONFIDENTIALITY. CI HAS NO FURTHER INFORMATION. CONSTRUCTION DEPARTMENT CONCERN.

O B Theo 11/15/85

MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS ______

OTHERS (SPECIFY) _____

Welders Document

NSRS DATE

PSR

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50190

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-097-002

Category: 88 Confidentiality: _YES _NO (I&H)

Supervisor Notified: ___YES _X_NO NUCLEAR SAFETY RELATED YES

Concern: WELD OPERATION SHEETS HAVE BEEN FALSIFIED. ERCW LINES, UNIT 1. DETAILS KNOWN TO QTC, WITHHELD DUE TO CONFIDENTIALITY. CONSTRUCTION DEPT. CONCERN. CI HAS NO FURTHER INFORMATION.

O K Thies 11/15/85

MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS ______

OTHERS (SPECIFY) _____

_____

NSRS DATE

Welding Document

PSR

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50190

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # WI-85-098-001

Category: 4 Confidentiality: _YES _NO (I&H)

Supervisor Notified: ___YES ___NO NUCLEAR SAFETY RELATED YES

Concern: CI EXPRESSED THAT THE RESULTS OF THE INVESTIGATION OF CONCERN IN-85-415-002 (DETERIORATION OF CEMENT MORTAR LININGS OF ERCW LINES) AS REPORTED IN THE "NUCLEAR SAFETY UPDATE" DATED 10-11-85. CI STATED THAT THE PROBLEM WAS NOT IDENTIFIED, AND THAT THE INVESTIGATORS MUST NOT HAVE INTERVIEWED PERSONNEL KNOWLEDGEABLE OF THE PROBLEM. CI HAS NO FURTHER INFORMATION.

O K Thew 11/15/85
MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS ___V___

OTHERS (SPECIFY) _____

Mechanical
ERCW

Bruce L. Crofton 6/27/85
NSRS DATE

P512

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50193

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # XX-85-009-002

Category: 84 Confidentiality: _YES _NO (I&H)

Supervisor Notified: _X_YES ___NO NUCLEAR SAFETY RELATED YES

Concern: SEQUOYAH: THERE IS NO REGARD FOR PERSONAL SAFETY AT OPERATING PLANTS. MANAGEMENT (KNOWN) DIRECTED THAT THE OLDEST EMPLOYEES BE ASSIGNED TO "HOT" WORK IN ORDER FOR THEM TO REACH THEIR RADIATION EXPOSURE LEVELS FIRST. A SUPERVISOR (KNOWN) MADE THE STATEMENT THAT "OLDER FOLKS WON'T BE LONG AROUND". DETAILS KNOWN TO QTC, WITHHELD DUE TO CONFIDENTIALITY. CONSTRUCTION DEPT. CONCERN. CI HAS NO FURTHER INFORMATION.

O. A. Thero 11/16/85
MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS ___✓___

OTHERS (SPECIFY) _____

Operations Control

Bruce L. Sutton 11/22/85
NSRS DATE

PSR

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50194

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # XX-85-067-001

Category: 53 Confidentiality: _YES _NO (I&H)

Supervisor Notified: _X_YES ___NO NUCLEAR SAFETY RELATED YES

Concern: SEQUOYAH - SMALL PROBLEMS IN PLANT OPERATION WERE DISREGARDED (1983), AND THE PLANT (UNIT 1) WAS KEPT OPERATING AS IF IN A RACE, WHICH RESULTED IN BIGGER PROBLEMS. NUC. POWER DEPT. CONCERN. CI HAS NO FURTHER INFORMATION AND HAS EXPRESSED THIS AS A GENERIC CONCERN.

O R Gwo 11/16/85
MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS __✓___

OTHERS (SPECIFY) _____

Operations Control

Bruce L. Siegfried 11/22/85
NSRS DATE

P5R

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50194

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # XX-85-077-X04

Category: 88 Confidentiality: _YES _NO (I&H)

Supervisor Notified: _X_YES ___NO NUCLEAR SAFETY RELATED YES

Concern: SEQUOYAH - DRAWINGS HAVE BEEN FALSIFIED. DETAILS KNOWN TO QTC, WITHHELD DUE TO CONFIDENTIALITY. CONSTRUCTION DEPT. CONCERN. CI HAS NO FURTHER INFORMATION.

O R Thew 11/14/85

MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS ___✓___

(OTHERS) (SPECIFY) OGC

Bruce A Wiggins

NSRS DATE

P3!

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50200

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # XX-85-090-001

Category: 52 Confidentiality: _YES _NO (I&H)

Supervisor Notified: __YES _X_NO NUCLEAR SAFETY RELATED YES

Concern: BELLEFONTE ALL UNITS. THE GLOBE VALVES (KERO TEST) NEED TO BE CHECKED FOR CORROSION & LEAKAGE DUE TO VENDORS HYDRO AND INADEQUATE DRYING. EXAMPLES OF THE SYSTEMS ARE: CVCS, SAFETY INJECTION, RHR, REACTOR COOLANT. CI STATED THIS PROBLEM HAS EXISTED FOR SIX YEARS. CONSTRUCTION DEPT. CONCERN. CI HAS NO FURTHER INFORMATION.

William L. Lester NOV 20 1985

MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS ___✓__

OTHERS (SPECIFY) _____

mechanical Valves

Bruce L. Sullivan 11/22/85

NSRS DATE

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50198

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # XX-85-090-002

Category: 52 Confidentiality: _YES _NO (I&H)

Supervisor Notified: __YES ___NO NUCLEAR SAFETY RELATED YES

Concern: SEQUOYAH: UNIT 1 & 2. PER CI TVA USED GLOBE VALVES (KERO TEST) EXTENSIVELY IN BOTH PLANTS, WATTS BAR AND BELLEFONTE AND HAD LEAKAGE & CORROSION PROBLEMS. CI QUESTIONS THE USAGE OF THESE VALVES AT SEQUOYAH - THE SISTER PLANT - FOR LEAKAGE & CORROSION PROBLEMS. THE SYSTEMS TO BE CHECKED AS EXAMPLES ARE CVCS, SAFETY INJECTION, RHR & REACTOR COOLANT ETC. CI HAS NO FURTHER INFORMATION. NUC POWER CONCERN.

W. Thomas S. Dickey NOV 19 1985
MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS __✓___

OTHERS (SPECIFY) _____

Mechanical Valves

Bruce F. Sullivan 11/22/85
NSRS DATE

Trans 16

PSR

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50191

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # XX-85-111-001

Category: 29 Confidentiality: _YES _NO (I&H)

Supervisor Notified: _X_YES ___NO NUCLEAR SAFETY RELATED YES

Concern: BELLEFONTE: STRUCTURAL STEEL IS NOT MARKED WITH HEAT/LOT NUMBER AND IS THEREFORE NOT TRACEABLE. CI HAS NO ADDITIONAL INFORMATION. NUC POWER DEPT. CONCERN.

O. F. Thero 11/15/85

MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS __✓___

OTHERS (SPECIFY) _____

material Control

Bruce L. Troffler 11/22/85

NSRS DATE

PSP

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50191

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # XX-85-120-002

Category: 14 Confidentiality: _YES _NO (I&H)

Supervisor Notified: ___YES _X_NO NUCLEAR SAFETY RELATED YES

Concern: SEQUOYAH: HANGERS WERE FREQUENTLY INSTALLED AND THEN ENGINEERING WOULD DO THE AS-CONSTRUCTED DRAWING. CI HAS NO FURTHER INFORMATION. CONSTRUCTION DEPT. CONCERN.

O L Thero 11/15/85
MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS ___✓___

OTHERS (SPECIFY) _____

construct
Contrl

Bruce L. Siefken 11/22/85
NSRS DATE

May 16

PSP

EMPLOYEE CONCERN ASSIGNMENT REQUEST

TO: Director - NSRS TRANSMITTAL NUMBER T50191

ERT has received the Employee concern identified below, and has assigned the indicated category and priority:

Priority: 1 Concern # XX-85-120-003

Category: 29 Confidentiality: _YES _NO (I&H)

Supervisor Notified: ___YES _X_NO NUCLEAR SAFETY RELATED YES

Concern: SEQUOYAH: HEAT NUMBERS HAVE BEEN PLACED ON APPROX. 5 PLATES ON THE CONTAINMENT VESSEL WHEN IT WAS DISCOVERED THERE WERE NO HEAT NUMBERS ON THESE PLATES. THIS WAS DONE WITH OUT QUALITY'S KNOWLEDGE AND VIOLATED THE QA PROCEDURE. CI HAS NO FURTHER INFORMATION. CONSTRUCTION DEPT. CONCERN.

O K Theus 11/15/85
MANAGER, ERT DATE

NSRS has assigned responsibility for investigation of the above concern to:

ERT ___

NSRS/ERT _____

NSRS ✓

OTHERS (SPECIFY) _____

material control

Bruce L. Loughlin 11/22/85
NSRS DATE

c. Survey of Suppliers

WCAP-8370 and Section 17.1.2 describe the measures that assure that procurement documents require suppliers to have and implement a documented QA program for purchased materials, equipment and services to an extent consistent with their importance to safety; that the purchaser has evaluated the supplier before the award of the procurement order or contract to assure that the supplier can meet the procurement requirements, and that procurement documents for spare or replacement items will be subject to controls at least equivalent to those used for the original equipment.

d. Audits

The YAEC Quality Assurance Department performs audits to assure compliance with program requirements by YAEC, NHY, WRD, UE&C selected suppliers, and site constructors. 56

17.1.1.5 Instructions, Procedures and Drawings

a. Quality Control Instructions

The Seabrook Station Quality Assurance Program includes a system for controlling all documents, procedures, instructions, or drawings that are required for quality-related activities associated with the design, procurement, testing, inspecting, construction, preoperational testing and auditing of all safety-related material, structures, systems and components.

WRD and UE&C, as major suppliers, are responsible for establishing systems for controlling instructions, procedures, and drawings within their own organizations and those of their suppliers. The WRD program is described in WCAP-8370 and the UE&C program is described in UEC-TR-001. The control of instructions, procedures, and drawings, with YAEC, is described in the Seabrook Station Quality Assurance Manual. Those instructions, procedures and drawings prepared by the Startup Test Group are handled in accordance with written, approved procedures.

b. Acceptance Criteria

Activities affecting quality are defined in instructions, procedures, and drawings and include appropriate qualitative and quantitative acceptance criteria to assure that specific activities are satisfactorily accomplished. References to these documents shall, when pertinent, identify the applicable revision. Instructions, procedures and drawings are reviewed and approved by appropriate supervisors or management. YAEC reviews contractor quality assurance manuals to ensure incorporation of Program requirements.

c. Audit and Surveillance

YAEC is responsible for auditing and surveillance of the WRD, UE&C, selected suppliers and site constructor programs to assure that the instructions, procedures, and drawings used on safety-related equipment are controlled and meet the requirements of 10CFR50, Appendix B.

17.1.1.6 Document Control

a. Issuance

The Seabrook Station Quality Assurance Program provides for the control of all documents affecting the quality of safety-related structures, systems and equipment during the design, procurement, construction and preoperational phases of the project.

The program establishes controls to assure that obsolete or superseded documents are not inadvertently used, that the individuals or groups responsible for reviewing, approving, and issuing documents are identified, that changes to documents are reviewed and approved by the same organizations that performed the original review, that approved changes are promptly distributed, and that the applicable documents are available prior to the start of work at the location where the activity is performed.

WRD and UE&C are responsible for assuring document control within their internal organizations and their suppliers. The WRD program for document control is described in WCAP-8370 and the UE&C measures described in UEC-TR-001. The contractors are required to perform surveillance audits and inspections to assure that their programs are properly implemented. Periodically, WRD and UE&C shall forward to YAEC an updated index listing the applicable specifications and drawings. The YAEC Project Manager shall periodically review his files to assure that superseded documents are destroyed or identified as being obsolete.

b. Identification

The Program requires that procedures and instructions be prepared to control the preparation, review, approval, revision or change, issuance and distribution of at least the following:

(a) The material, component, or equipment is properly identified and corresponds with the receiving documentation.

(b) Inspection of the material, component or equipment, and acceptance records is performed and judged acceptable in accordance with predetermined inspection instructions. Items and their records must be approved prior to installation or use.

(c) Inspection records or certificates of conformance attesting to the acceptance of material, components, and equipment shall be available at the nuclear power plant prior to installation or use.

(d) Items accepted and released are identified as to their approved inspection status prior to forwarding them to a controlled storage area or releasing them for installation or further work.

(e) Nonconforming items are segregated, controlled, and clearly identified until proper disposition is made.

Purchased material, equipment and services originated by the NHY station staff is controlled by the NHY Nuclear Production Operational Quality Assurance Program.

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The YAEC Quality Assurance Department evaluates the control measures in the quality assurance programs of WRD and UE&C by reviewing their Quality Assurance Programs and by a system: of periodic audits. These evaluations provide assurance that they are capable of providing equipment, material and services which meet the applicable regulatory requirements. The audits are performed to verify that WRD and UE&C comply with the control measure applicable to the material, equipment, and services involved.

WRD and UE&C, based upon the complexity of purchased items and supplier performance history, performs source inspections or audits of vendors as necessary to assure that the required quality of the items is obtained. Surveillance of supplier's fabrication, testing, inspection and shipment of materials, equipment and components is planned, performed and reported in accordance with written procedures which assure conformance to the purchase order requirements.

Prior to the solicitation of bids, WRD and UE&C submit lists of prospective suppliers to YAEC for review and approval and for suggested additions. YAEC recommends addition or removal of suppliers based on prior YAEC experience with the suppliers.

If there are potential suppliers for which WRD or UE&C, as applicable, has not quality history, release of the purchase order is contingent upon their successful audit of the suppliers facilities and implementation of his quality program. The YAEC Quality Assurance Department participates in audits and performs independent audits of selected suppliers and establishes notification points on selected safety-related equipment for YAEC participation in WRD and UE&C inspection, test or audit operations. Notification points for product surveillance are selected so that a cross-section of fabrication, inspection, and testing operations are observed on the various product types (i.e., pumps, valves, tanks, reactor vessels, instrumentation). The purpose of the surveillance is to verify the adequacy of the WRD and UE&C vendor control. YAEC selected notification points are transmitted by the Project Manager to WRD and UE&C, as applicable.

The review and approval of inspection plans, test, calibration and special process procedures is performed by Contractor (UE&C and WRD) personnel. YAEC reviews the Contractor's systems of review and approval which include the control of revisions. Adequacy of Contractor reviews is substantiated via YAEC audit and/or surveillance at Constructor and/or Supplier facilities. YAEC QA personnel review Contractor (UE&C & WRD) specifications and applicable drawings to assure that the specifications and drawings adequately specify the requirements regarding inspection plans; test; calibration and special process procedures. The YAEC review is performed in accordance with approved procedures.

Documentation required by the procurement document specification is reviewed by the appropriate contractor quality assurance group prior to release of the hardware for shipment. The specifications identify specific requirements such as codes, regulatory guides, standards, and specifications. It is the responsibility of the contractors, WRD and UE&C, to periodically verify suppliers' certificates of conformance to assure that they are meaningful.

Upon receipt of items, material, or equipment at the site, UE&C performs receiving inspection. Receiving inspection verifies that all required documentation is received, that the item, material or equipment conforms to the purchase order requirements, that the documentation is traceable to the item, material or equipment, and that the item, material or equipment is inspected for shipping damage. Certification must be furnished by the supplier which identifies any procurement requirements which have not been met together with a description of the disposition of each nonconformance. Appropriate records shall be maintained to indicate completion of these activities. Material, equipment or items lacking

the required documentation are identified as nonconforming and placed in a "Hold" status pending receipt of the necessary documentation.

b. Audits

The YAEC Quality Assurance Department audits WRD, UE&C and selected suppliers, and participates during WRD and UE&C audits of selected suppliers to assess the adequacy of supplier control measures for purchased material, equipment and services and of the WRD and UE&C audit systems. These YAEC audits, performed in accordance with requirements contained in the Seabrook Station Quality Assurance Manual, occur at intervals consistent with the importance, complexity and quality of the item or service.

17.1.1.8 Identification and Control of Material, Parts and Components

The Seabrook Station Quality Assurance Program requires that all organizations performing safety-related activities establish procedures to provide identification and control of materials, parts, and components, including partially fabricated assemblies, to prevent the use of incorrect or defective material, parts, and components and that measures assure that identification of the item is maintained by a unique number either on the item or on records traceable to the item throughout fabrication, erection, installation, and use of the item. The location and method of identification shall not affect the function or quality of the item being identified. Verification of identification is accomplished at appropriate stages throughout manufacturing, shipping, receipt, and installation.

WRD and UE&C have developed methods for identification and control of materials, parts and components within the scope of their responsibilities. The UE&C program is detailed in UEC-TR-001 and the WRD program is detailed in WCAP-8370.

During the design stages, WRD and UE&C developed systems identification and assigned unique identification numbers, as appropriate, to items in a system. These numbers provide traceability of all associated documentation such as manufacturing and inspection documents, deviation reports, and material test reports.

WRD and UE&C are responsible for imposing their identification and material control system requirements on their suppliers and assure implementation through inspections, surveillance, and audits. UE&C ensures that the required identification and traceability of all safety-related materials, parts, and components are maintained from receipt at the site through the completion of construction.

YAEC provides assurance of the implementation of these requirements by means of audits and surveillance of WRD, UE&C, selected suppliers and site constructors.

17.1.1.9 Control of Special Processes

The Seabrook Station Quality Assurance Program requires that all organizations performing special processes develop a system of special process qualifications and controls. Special processes include, but are not limited to welding, heat treating, nondestructive testing, cleaning and electrochemical machining.

The program requires that all organizations performing special processes on safety-related items shall do so in accordance with approved procedures under controlled conditions. Personnel and the procedures and equipment used performing special processes are qualified in accordance with applicable codes, standards, specifications, or regulatory guides. The procedure utilize written check lists or other written instructions as applicable. Equipment used in the performance of special processes is calibrated as detailed in Section 17.1.1.12. Qualification records of procedures, equipment and personnel associated with special processes are maintained, filed, and kept current.

WRD and UE&C are responsible for imposing these requirements on their own organizations and on their suppliers and subcontractors performing work within the scope of this Program. Procedures of their suppliers' and subcontractors' are required to be submitted for review and approval as required in the applicable procurement documents. WRD and UE&C assure implementation of these requirements through a system of audits and surveillances.

The UE&C program for control of special processes is described in UEC-TR-001 and the WRD program is described in WCAP-8370. Special processes performed by the NHY Station Staff are controlled by the NHY Nuclear Production Operational Quality Assurance Program. 56

YAEC assures conformance to these requirements by WRD, UE&C, and their suppliers and site constructors through a program of audits and surveillance.

17.1.1.10 Inspection

All organizations responsible for inspection of safety-related equipment and systems are required to have a documented program which includes the use of qualified inspection personnel and written inspection instructions.

The WRD inspection program for the manufacture of the NSSS equipment is detailed in WCAP-8370. The UE&C program for inspection of safety-related items for the balance of plant and for site activities is detailed in UEC-TR-001.

a. Inspection Program Implementation

The programs require that design specifications, drawings, purchase orders, procedures or instructions include the necessary inspection requirements with acceptance and rejection criteria. These inspection requirements are translated into inspection programs, procedures, and check lists, by manufacturing, construction, installation and test activities in order to specify, control and provide documented evidence of inspection activities. Inspection procedures, instruction and check lists contain the following:

1. Identification of characteristics to be inspected.

2. Identification of individuals or groups responsible for performing the inspection operation.

3. Acceptance and rejection criteria.

4. Define the method of inspection.

5. Verification of completion and certification of inspection.

6. A record of the results of the inspection operation.

Inspections are performed for each work operation as necessary to verify quality.

Qualified inspectors, independent from: the individual or group performing the activity being inspected, perform inspections using equipment that has been calibrated in accordance with the requirements of Section 17.1.1.12. Inspectors are qualified in accordance with appropriate codes, standards, and regulatory guides and their qualifications and certifications are kept current and on file. Inspection procedures, plans, instructions or check lists are maintained where the activity is to be performed prior to the start of work. Rework, repair, or modifications are inspected in accordance with the original design and inspection requirements or acceptable alternatives. Where direct inspection is not possible, provisions are established for indirect control by monitoring process methods, equipment and personnel. Both inspection and process monitoring are used when control is inadequate without both. Inspection results are evaluated to determine that the requirements have been satisfied. Personnel performing receiving inspection, tests and verification processes are required to be qualified to the requirements of Regulatory Guide 1.58, ANSI N45.2.6 and N45.2. YAEC QA personnel review the Constructors QA Manuals, Procedures and Procurement Documents to assure that the required commitments are

imposed upon all site personnel and organizations. YAEC QA personnel perform surveillance and audit activity over the constructor and construction subcontractors.

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b. Inspection Holdpoints

When UE&C, WRD or YAEC notification or hold points are established by the procurement document, or internally by the fabricator, the inspection program or plan provides that work does not progress beyond the inspection point until released by the designated authority.

UE&C performs receiving, construction and installation process verification inspections at the construction site.

c. Requirements for Suppliers

WRD and UE&C are responsible for imposing these requirements on their internal operations and those of their vendors and subcontractors. They perform audits or surveillance to assure the adequacy of the implementation of these requirements. In general, inspections are the responsibility of the manufacturing or construction organizations, with WRD, UE&C and YAEC performing the audits or surveillance.

d. Audits

YAEC performs audits of WRD and UE&C and participates in inspections at selected vendor facilities to verify implementation with specifications, applicable codes, standards, and regulatory guides. YAEC also performs surveillance of site constructor activities in accordance with this Program.

17.1.1.11 Test Control

a. Test Control Implementation

YAEC has assigned to WRD and UE&C the control of testing of safety-related materials, equipment, and structures during all phases of manufacturing, construction and installation.

The UE&C test program for material, equipment, and structures within the balance of plant and for site activities is detailed in UEC-TR-001. The WRD test program for the nuclear steam supply system components is detailed in WCAP-8370.

Supplier and subcontractor test procedures are subject to review and approval by the contractor having responsibility for the item.

The WRD and UE&C programs require that all testing necessary to demonstrate that materials, equipment, and structures perform satisfactorily in service is identified, accomplished, and documented in accordance with written controlled procedures. These procedures are based on the requirements of the codes and standards referenced in Table 3.2-3 of this FSAR. These written procedures include requirements for the following:

1. Instructions for testing method and test equipment and instrumentation.

2. Calibrated instrumentation.

3. Adequate and appropriate equipment.

4. Trained, qualified, and licensed or certified personnel.

5. Preparation, condition, and completeness of the item to be tested.

6. Suitable and controlled environmental conditions.

7. Mandatory inspection hold points for witness by YAEC, WRD, UE&C, and authorized inspector.

8. Provisions for data collection and storage.

9. Acceptance and rejection criteria.

10. Methods for documenting or recording test data and results.

The control of testing during the initial test program is discussed in Chapter 14 of the FSAR.

b. Test Procedure

Test results will be documented and evaluated to the established criteria by a qualified, responsible individual or group.

c. Test Results

See Section 17.1.1.11b.

d. Requirements on Others

WRD and UE&C are responsible for imposing these requirements on their internal organization and on their vendors and subcontractors. Through auditing and surveillance, they assure the adequacy of the program implementation.

e. Audits

YAEC, through a program of planned audits of WRD, UE&C, selected audits of their vendors and subcontractors, and surveillance of site constructor activities assures their conformance to the program requirements.

17.1.1.12 Control of Measuring and Test Equipment

During manufacturing, responsibility for the control of measuring and test equipment for all phases of measurement, inspection and monitoring of safety-related materials, components, and structures is delegated to WRD and UE&C. UE&C is, in addition, responsible for specifying the requirements for the control of measuring and test equipment at the construction site.

The WRD program for control of measuring and test equipment is detailed in WCAP-8370 and the UE&C program is detailed in UEC-TR-001.

These programs require that all organizations performing measuring or testing operations on safety-related materials, components, systems and structures have written procedures describing the calibration technique and frequency, maintenance, and control of all measuring and test instruments, tools, gages, fixtures, reference and transfer standards, and nondestructive test equipment which are used. Reference and transfer standards are required to have traceability to nationally recognized standards, or, where national standards do not exist, provisions are established to document the basis for calibration.

All measuring and test equipment is identified and the calibration test data is identified as to the equipment to which it applies. The contractors (UE&C and WRD) are required to conform to a calibration requirement of marking, labeling or tagging of measuring and test equipment indicating date of next calibration. UE&C and WRD are presently committed to this requirement in their Topical Reports UEC-TR-001 and WCAP-8370. Suppliers and subcontractors are required to a similar provision in their QA programs which are approved by the Contractors and Constructor. The calibration frequency shall depend on the required accuracy, purpose, degree of usage, stability characteristics and 53

the manufacturers' recommendation. Records of the status of all items under the calibration system are maintained as required by ANSI N45.2.9.

UE&C, who is responsible for the procurement of equipment for the balance-of-plant, requires in their quality assurance program that suppliers maintain a system which assures that calibrating standards have an uncertainty (error) requirement of no more than 1/4 of the tolerance of electrical equipment being calibrated and 1/10 of the tolerance for all other equipment being calibrated, except where limited by the state-of-the-art.

Westinghouse, who is responsible for procurement of the NSSS equipment, requires that when calibrating measuring and test equipment, typical transfer ratios of 10-1 are used for mechanical equipment; 4-1 for electrical equipment; and 4 or 5-1 for precision mechanical measuring equipment.

An investigation is conducted to determine the validity of previous inspections performed when measuring and test equipment is found to be out of calibration. The results of this investigation are documented. Inspections will be repeated, as necessary, using calibrated equipment to establish acceptability of suspect items.

WRD and UE&C are responsible for imposing these requirements on their internal operations and on their vendors and constructors. WRD and UE&C perform audits and surveillance to assure the adequacy of the program.

YAEC performs audits of WRD, UE&C, selected vendors, and site constructors, to assure conformance with the program requirements.

17.1.1.13 Handling, Storage and Shipping

WRD and UE&C have been delegated the responsibility for the handling, storage, and shipping activities performed on all safety-related materials, components, systems, and structures throughout all stages of manufacturing, packing, storage, preservation, cleaning and installation.

The WRD program for the control in these areas is contained in WCAP-8370 and the UE&C program is contained in UEC-TR-001.

The programs require that all handling, storage, shipping, cleaning, preservation of safety-related materials, components, systems and structures be performed by qualified individuals in accordance with prescribed work instructions or procedures to prevent damage or deterioration. These procedures are based on the requirements of applicable codes, standards, regulatory guides and design specifications.

The instructions include inspection operations to verify compliance. Procedures include requirements for special environmental conditions such as inert gas atmosphere, specific moisture content levels, and temperature levels.

WRD and UE&C are responsible for imposing these requirements on their internal operations and on their vendors and constructors. To assure implementation, they perform audits and surveillance on affected organizations.

YAEC performs audits of WRD, UE&C, and selected suppliers and on site constructors to assure conformance to the program requirements.

Measuring and test equipment utilized by the NHY Station Staff is controlled by the NHY Nuclear Production Operational Quality Assurance Program. 56

17.1.1.14 Inspection, Test and Operating Status

WRD and UE&C have been delegated the responsibility for indicating the inspection, test and operating status of safety-related material, equipment and components during manufacture. In addition, UE&C is responsible for establishing a requirement that constructors indicate inspection, test and operating status during installation at the construction site. The Startup Test Group is responsible for equipment and system status identification during the Initial Test Program.

The WRD program for indicating the inspection, test and operating status is detailed in WCAP-8370 and the UE&C program is detailed in UEC-TR-001.

Each organization supplying safety-related material, equipment, and structures establishes a system for identification of the inspection, test and operating status during all phases of their operation. The system is implemented by procedures which describe the use of status indicators such as labels, tags, stamps or routing cards that identify the status of the equipment at any given time.

The program assures that operations performed out of sequence are controlled through documented measures under the cognizance of the applicable QA organization. Only authorized personnel are permitted to apply or remove tags, markings, or stamps used to indicate inspection, test, or operating status. Stamps used by personnel for completing items such as welds, inspections, and test are controlled and traceable to the user.

The operating status of nonconforming, inoperative, or malfunctioning structures, systems, or components is identified, in accordance with Section 17.1.1.15, to prevent their inadvertent use.

WRD and UE&C are responsible for imposing these requirements on their respective operations and on their vendors.

5. When a systematic, independent assessment of program effectiveness is considered necessary.

6. When it is necessary to verify implementation of required corrective action.

Surveillance at the construction site is conducted by the YAEC Field QA Surveillance Supervisor and his staff. Personnel from the YAEC headquarter's Quality Assurance staff audit the activities of the YAEC Field QA staff and perform additional audits on contractor activities. 53 49 53

These audits are preplanned and in accordance with written check lists of procedures and are conducted by appropriately trained personnel not having direct responsibility in the areas being audited. The audit schedule is established, based on the project status, safety and importance of the activities being performed, and the quality history of the audited activity. Audits are initiated early enough to assure effective quality assurance for ongoing activities during the initial design and procurement phases. 49

The program requires audit results to be documented, reviewed by or with the management responsible for the area audited, and appropriate action initiated to correct any deficiencies. The organization conducting the audit is responsible for conducting follow-up actions, as necessary, to confirm that corrective action is accomplished as scheduled. Follow-up action may be accomplished through written communication, reaudit, or other appropriate means. The audit report distribution includes the YAEC and NHY management. 53

17.1 2 United Engineers & Constructors Inc. Quality Assurance Program 54

The Quality Assurance program for United Engineers & Constructors Inc. is described in Topical Report No. UEC-TR-001, "Quality Assurance Program" (latest revision), with the exceptions:

1. The Quality Assurance Program meets Regulatory Guide 1.28, Revision 2, requirements including the addition of ANSI N45.2.23.

2. Field purchases are controlled via UE&C and NHY purchasing procedures.

3. Duties of Field Superintendent - QA and Supervisor Site QA Engineer are performed by Project Field QC Manager and Project Field QA Manager. 56

UEC-TR-001 has been reviewed by the NRC and evaluated as an acceptable reference for a license application.

17.1.3 Westinghouse Quality Assurance Program

The original Quality Assurance Program implemented by Westinghouse for Seabrook was described in RESAR-3, Amendment 4, as referenced by FSAR Section 44

17.3. Over the course of performing the design and initial procurement activities for Seabrook, the Westinghouse Quality Assurance Program was upgraded to reflect changes in regulatory requirements and industry standards. These changes first culminated in Westinghouse topical report, WCAP-8370, Revision 7A (Reference 1) which was applicable to activities from January 1, 1975 to October 1, 1977, as documented in PSAR Amendment 24. This was superceded by Westinghouse topical report, WCAP-8370, Revision 8A (Reference 2) which was applicable to activities from October 1, 1977 to October 31, 1979, and by WCAP-8370, Revision 9A, which was applicable from October 31, 1979 to November 30, 1984. 55

The Westinghouse Nuclear Fuel Division Quality Assurance Program is described in Westinghouse Topical Report, WCAP-7800, Revision 5 (Reference 4).

The present Westinghouse Water Reactor Divisions Quality Assurance Plan is described in WCAP 8370/7800, Revision 10A/6A (Reference 5) and applies to all Westinghouse Water Reactor Division's (including Nuclear Fuel Division's) activities subsequent to November 30, 1984. 55

17.1.4 References

1. "Quality Assurance Plan Westinghouse Nuclear Energy Systems Divisions," WCAP-8370, Revision 7A, February 1975.

2. "Westinghouse Water Reactor Divisions Quality Assurance Plan," WCAP-8370, Revision 8A, September 1977.

3. "Westinghouse Water Reactor Divisions Quality Assurance Plan." WCAP-8370, Revision 9A, October 1979.

4. "Nuclear Fuel Division Quality Assurance Program Plan," WCAP-7800, Revision 5, December 1977.

5. "Westinghouse Water Reactor Division Quality Assurance Plan", WCAP-8370/7800, Revision 10A/6A, November 1984.

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TABLE 17.1-5

SUPPLEMENTAL PROCEDURES

Procedure	Proc. No.
Administration of QA Program	WE-001
Indoctrination of Personnel	WE-003
Training	WE-004
Calculations and Analysis	WE-103
Computer Codes	WE-108
Quality Assurance Training	Q-101
QA Training Program	Q-102
Audit Primer	Q-103
Qualification and Certification of Inspection and Testing Personnel to ANSI N45.2.6	Q-106
Document Control Center Interface	Q-107
Quality Assurance for Fire Protection	Q-110
Project Policy Manual (Seabrook)	
Document Control Center Manual	
Seabrook Station Field Quality Assurance Manual and Procedure	
Procedure for Blast Monitoring	PSY Proc. 1
Procedure for Monthly Maintenance Program - Blast Monitoring Equipment	
Procedure for Operator Training Program (Blast Monitoring)	PSY Proc. 3
Procedure for Control of YAEC Generated Procedures (Site Related)	PSY Proc. 4
Procedure for Geological Mapping Program	PSY Proc. 5
Procedure for Procurement Control	PSY Proc. 6

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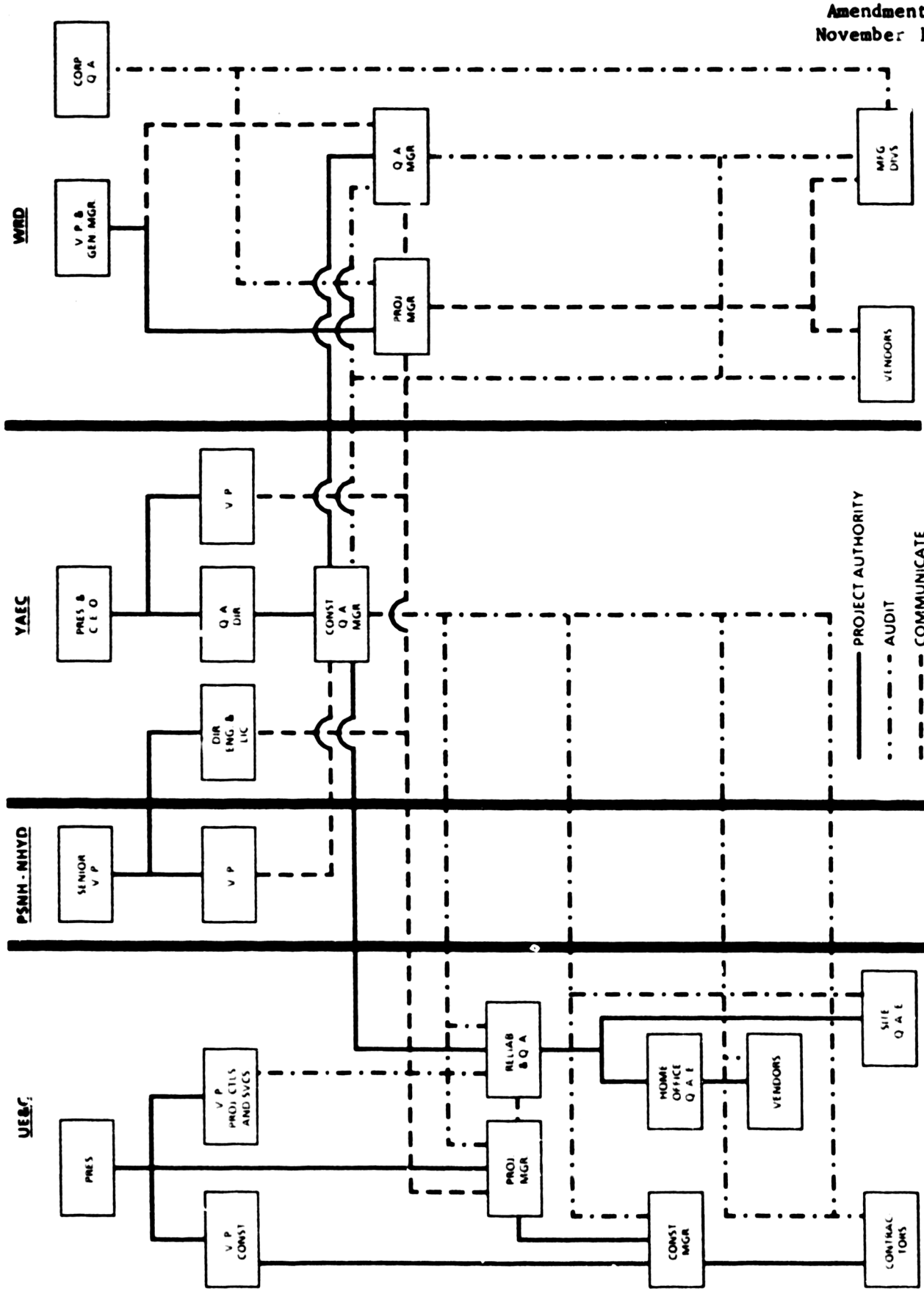
PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
SEABROOK STATION - UNITS 1 & 2
FINAL SAFETY ANALYSIS REPORT

YAEC
QUALITY ASSURANCE INTERFACES

FIGURE 17.1-1

Amendment 56
November 1985



PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE SEABROOK STATION - UNITS 1 & 2 FINAL SAFETY ANALYSIS REPORT	COMPOSITE QUALITY ASSURANCE INTERFACES
	FIGURE 17 1-1A

17.2 QUALITY ASSURANCE DURING THE OPERATIONS PHASE

It is the policy of New Hampshire Yankee Electric Corporation (NHY) that all activities associated with Seabrook Station, which may affect the safety of the general public, shall be performed in a manner that provides a level of quality commensurate with the activity. To implement this policy during the operation of Seabrook Station, a series of management controls has been instituted which control the quality of work performed on, and materials used in, safety related structures, systems, and components. The NHY Operational Quality Assurance Program (OQAP), described below, and its associated management controls for materials and activities meet the applicable regulatory requirements of 10 CFR 50, Appendix B and is the program established to meet this policy. 56

Individuals responsible for the performance of activities affecting structures, systems, and components at Seabrook Station are responsible to be familiar with and to implement the applicable requirements as defined in the OQAP. 56 53

17.2.1 Organization

17.2.1.1 Program Responsibility

The ultimate responsibility for operation, including maintenance, modification and refueling of Seabrook Station rests with New Hampshire Yankee. The Senior Vice President has been designated as the responsible corporate officer. As such, he has the authority and responsibility to develop and implement the Operational Quality Assurance Program, hereinafter referred to as the Program or OQAP. 53

The Program, which is presented in this and the following sections, is expressed as an outline of the assignments, actions and procedures that, taken together, will result in proper management and operation of activities at Seabrook Station.

Through the established organization, verification of conformance to established quality requirements is implemented by individuals or groups not having direct responsibilities for the work being verified. Those individuals performing the verifications and other quality related functions have direct access to management levels in the organization which assures the ability to:

- o Identify quality problems
- o Initiate, recommend, or provide solutions through designated channels 53
- o Verify implementation of solutions

The Vice President - Nuclear Production will mediate disputes arising within the OQAP. Where disagreement persists, the matter may be appealed to the Senior Vice President for final resolution. 53

17.2.1.2 Delegation of Authority and Assignment of Responsibility

a. The Senior Vice President, while retaining full responsibility and the overall authority, has delegated the necessary authority and has assigned responsibility for the Program to the Vice President - Nuclear Production. He has assigned the Nuclear Quality Manager the responsibility to manage the programmatic aspects of the OQAP. 53

b. Various services and support activities required for operational support have been contracted from the Nuclear Services Division (YNSD) of Yankee Atomic Electric Company (YAEC). YNSD has been assigned specific authority and responsibility to perform these contracted functions. YNSD remains independent of NHY but interfaces with and is responsible to NHY in accordance with Figure 13.1-2. 53 56

The scope of work and functional responsibilities for YNSD are generically defined in a formal agreement between YNSD and PSNH. In exercising ultimate responsibility for the above contract, NHY does the following: 53

1. Requires the submittal of appropriate YAEC documents to assure conformance with the commitments of the FSAR, OQAP and/or Technical Specifications.

2. Participates in selected YAEC internal audits to assess YAEC performance in QA related activities. Participating NHY personnel recommend actions to NHY and YAEC management over and above those recommended by YAEC if deemed necessary. NHY will participate in a minimum of two (2) audits annually. These audits may be combined with required NSARC audits as defined in the Technical Specifications.

3. Performs an annual management assessment of YNSD QA performance to assess compliance with the YAEC program relative to the Seabrook project.

4. Assigns, based on the scope of work and as necessary, an organizational element within NHY to coordinate work activities with YNSD to assure the quality of work.

17.2.1.3 Organizational Structure 56

NHY Organization

The NHY organizational structure discussed below is shown on Figure 17.2-1. 53 56

a. Nuclear Production (NP)

The Vice President - Nuclear Production is responsible for the operation and operational support of Seabrook Station. To assist him in the accomplishment of these responsibilities, the Vice President - Nuclear Production has the Seabrook Station Manager, the Startup Manager, and the Nuclear Support Services Managers reporting directly to him. 53

Nuclear Support Services contains the necessary expertise and authority to provide support for three functions. They are an operational support function under the Nuclear Services Manager, a quality assurance function under the Nuclear Quality Manager, and a licensed training function under the Training Center Manager. 53 56 53 56 56

1. Nuclear Quality Group (NQG)

The Nuclear Quality Manager has overall responsibility for assuring that the Operational Quality Assurance Program is effectively implemented by all organizations performing work on systems and equipment within the scope of the OQAP. 53

The Nuclear Quality Group has the freedom and authority to perform independent reviews of OQAP related work and request work stoppages or remedial actions if conditions adverse to quality are encountered. Functions to be performed by the Nuclear Quality Group are matched with available manpower resources on a short and long term basis. For each functional category, specific quality assurance activities are identified and man hours required to accomplish the tasks are estimated. Based on these estimates, the number and types of personnel required to support the activities are determined. The program audits are scheduled up to a year in advance and specific personnel are tentatively assigned. For short term inspection planning, specific work packages are developed and personnel are tentatively assigned. Due to the time required to recruit and train personnel and other variables in the work load, certain tasks may be assigned to YNSD and consultants as needed. At present, the QA/QC staff planned is approximately 27 recognizing that this number will vary dependent on work activities, schedules, and ability to contract QA/QC work assignments outside. The NQG's authority extends over the Nuclear Support Services Staff, the Seabrook Station Staff, YNSD and any other organization performing OQAP related work 56 53 53 56 56 53 56

for Seabrook Station. The Nuclear Quality Manager has a direct line of communication with the managers of the above staffs to assure a timely resolution of OQAP related problems, audit findings, and corrective actions. The communication interface is shown in Figure 17.2-1. The qualifications and experience of the Nuclear Quality Manager are as defined in ANSI/ANS 3.1-1978 for Professional-Technical. The Nuclear Quality Manager directs and supervises quality activities such that he: 54 56

- o Approves the Program and all changes to the Program.
- o Maintains open communications with NHY Managers, YNSD Director of QA and other appropriate personnel, as required, to maintain cognizance of matters relating to implementation of the program.
- o Has authority to assign quality assurance functions to YAEC Quality Assurance in accordance with the Second Memorandum of Agreement, which is described in Sections 13.1.1 and 13.1.1.3.
- o Directs the Nuclear Quality Group in the implementation of the OQAP. 54 56
- o Develops a training program for NQG personnel and provides for their certification, as required. 56
- o Identifies quality problems and evaluates their extent and safety implications.
- o Recommends, provides or initiates solutions to identified quality problems.
- o Verifies implementation of approved solutions to such problems.
- o Administers the NHY audit, surveillance and inspection programs of the NHY Nuclear Production organization. 56
- o Evaluates and reports on the effectiveness of the Program, and identifies trends in quality performance.
- o Refers to the Vice President - Nuclear Production for mediation, cases where he is unable to establish mutual agreement with, or between, other organizations involved in the implementation of the Program.

- Is Chairman of the Nuclear Safety Audit and Review Committee (NSARC). 56

(a) Nuclear Quality Group

The Nuclear Quality Group provides on-site verification and assessment of the Program implementation. The communication interface with the Station is depicted on Fig. 17.2-1. 54

The Nuclear Quality Manager receives prior notification of SORC meetings and a representative participates on a regular basis. The Nuclear Quality Group is on distribution for pertinent meeting notices, correspondence and information and a representative attends any meeting which appears appropriate. Nuclear Quality Group personnel routinely attend and participate in work schedule and status meetings to assure that they are kept abreast of day-to-day work assignments throughout the plant and that there is adequate QA/QC coverage relative to procedural and inspection controls, acceptance criteria, and QA/QC staffing and qualification of personnel to carry out QA/QC assignments. 54 56 54 54

The Nuclear Quality Group consists of the Quality Control, the Quality Assurance, and the Audit and Evaluation Sections. The Quality Assurance Section contains expertise in the areas of quality engineering. The Audit and Evaluation Section contains expertise in Quality Assurance auditing. The Quality Control Section contains expertise in the areas of electrical, mechanical, and instrumentation and control. The sections report directly to the Nuclear Quality Manager. 54 56

The Nuclear Quality Manager and his staff embody the necessary technical and professional qualifications and expertise, and are responsible to: 54

(1) Assist the Training Manager in providing basic and advanced QA Training for Station personnel.

(2) Train, retrain, and qualify personnel in the specific QA and QC skills and techniques required to perform audits, surveillances and inspections of OQAP related work associated with Station operations, maintenance and other activities. 56

(3) Monitor and review the conduct of quality control activities and the performance of inspections.

(4) Perform QC inspection functions not delegated to other groups/organizations. 56

(5) Perform audits and surveillances of Station programs and activities within the scope of the OQAP.

(6) Review and audit to assure that contractors or service agencies performing on-site work, within the scope of the OQAP, employ adequate QA programs and implementing procedures. 56

(7) Exercise stop-work authority.

2. The Startup Test Department is headed by the Startup Manager and is responsible for the scheduling, administration, technical direction, and performance of the initial test program.

3. The Nuclear Services Group functions in direct support of the Station in the areas of licensing, health physics, training and operations. The group will also maintain communications with YNSD's operations personnel on Station activities. The Operational Engineering Section reports to the Nuclear Services Manager and provides the independent review and assessment required of an "Independent Safety Engineering Group" as described in NUREG-0737. 56 54 56

4. Seabrook Training Center (TC) is headed by the Training Center Manager who is responsible to him for the activities of the TC as described in Subsection 13.1.1.2.

5. Seabrook Station is headed by the Station Manager who is responsible for the operation and administration of Seabrook Station. To carry out this assignment the Station Manager has the staff and organization described in FSAR Chapter 13. The 56

various parts of this organization implement their assigned aspects of the Program as follows:

(a) Station Manager

1. Overall responsibility for implementation aspects of the Program at Seabrook Station.

2. Is Chairman of the Station Operation Review Committee (SORC).

(b) Assistant Station Manager

The Assistant Station Manager reports directly to the Station Manager and is responsible to:

1. Supervise the Seabrook Station Training Manager. 56

2. Is a member of the Station Operation Review Committee (SORC).

3. Assumes the responsibilities of the Station Manager in his absence.

(c) Compliance Manager

The Compliance Manager reports directly to the Station Manager and is responsible to him to: 56

1. Maintain communications with the Nuclear Quality Manager on matters related to the implementation of the Program within the station. 54

2. Represent the Station Manager in matters relating to regulatory compliance and quality assurance activities within the Station.

(d) The Administrative Services Manager reports directly to the Station Manager and is responsible to:

1. Maintain a staff of administrative, computer development, security, and safety personnel who are trained and qualified to perform their duties. 56

2. Administer and monitor performance of Station security services. 56

3. Coordinate all Station drills related to security, fire protection and safety.

4. Supervise the procurement, receipt inspection, handling, storage, issue of and records associated with material and services that are encompassed by the Program. 56

(e) The Seabrook Station Training Manager reports directly to the Assistant Station Manager and is responsible to:

1. Develop and maintain, for nonlicensed personnel, the program needed to train individuals in their assigned tasks and functions.

2. Conduct non-licensed/non-operator training for each designated person.

3. Coordinate the selection and timing of personnel to be assigned to initial training and retraining courses. 56

4. Provide quality assurance and quality control training under the technical direction of the Nuclear Quality Manager.

(f) The Technical Services Manager reports directly to the Station Manager and is responsible to: 56

1. Perform the support functions that include chemistry sampling and analysis; radiation monitoring and health physics controls and exposure records; reactor engineering; computer operation and engineering; and general engineering services.

2. Direct actions within the realm of the Technical Services Group, to fulfill the surveillance testing program requirements.

3. Prepare the required procedures for performance of the above functions. Schedule the performance of work and control the material, personnel and processes involved. 56

(g) The Maintenance Manager reports directly to the Station Manager and is responsible to:

1. Perform the support functions that include the corrective and preventive maintenance programs; station modification and repair actions; and radwaste facility operations.

2. Prepare the required procedures for performance of the above functions. Schedule the performance of work and control the material, personnel and processes involved.

(h) The Operations Manager reports directly to the Station Manager and is responsible to: 56

1. Operate equipment at the Station in compliance with Technical Specifications and other license requirements.

2. Assist in the training of operations personnel to assure an adequate number of qualified employees for each task.

3. Prepare, review, approve and implement the operating procedures to be used for Station operations.

4. Direct actions, within the realm of the Operations Group, to perform the balance of the surveillance testing program required by the Station license.

5. Maintain a staff of fire protection personnel. 53

b. Yankee Atomic Electric Company - Nuclear Services Division (YNSD)

1. Organization

The YNSD organization, and its interface with NHY, is discussed and shown in FSAR Chapter 13 and Figure 17.2-1. 53 56

The YNSD organization consists of a variety of disciplines. The two that provide the direct interface with NHY are the Quality Assurance Department and the Projects Department. The Projects Department draws upon the other YNSD technical disciplines to furnish the specific support services as they are needed. 53

2. Responsibilities

YNSD responsibilities in support of Seabrook Station are:

(a) Quality Assurance Department

(1) Assure that YNSD activities comply with requirements of the OQAP.

(2) Provide evaluation, inspection and/or surveillance of vendor services for Seabrook Station. This includes evaluation of QA programs and procedures, the examination of vendors selected to fabricate or furnish material, equipment and services and maintenance of an updated list of such approved vendors.

(3) Provide the YNSD interface with the NHY Nuclear Quality Manager and carry out functions in accordance with the Second Memorandum of Agreement, described in FSAR Chapter 13, and with other procedures and agreements between YNSD and NHY. 53 56 53 56

(b) Projects Department

Draw upon the varied technical expertise within YNSD, and coordinate activities in support of Seabrook Station.

(c) Technical Discipline Departments

Provide the technical expertise required by the Projects Department in the areas of Plant Engineering, Licensing, Environmental Engineering, Fuel Cycle and Nuclear Engineering.

c. Nuclear Safety Audit and Review Committee (NSARC)

NSARC is an executive body that is responsible for conducting a critical examination of Station activities, including Station operation, evaluation of procedures, investigations of abnormal conditions, and functioning of the OQAP. Technical Specifications define the responsibilities and authority of NSARC. A written charter, approved by the Senior Vice President, designates the membership, authority and rules for conduct of activities. 53

d. Station Operation Review Committee (SORC)

SORC is an advisory group, composed of Station management and supervisory personnel, constituted for the purpose of reviewing current activities and determining the effect on operational safety. SORC recommends to the Station Manager appro al or disapproval of proposals considered by the Committee. Technical Specifications define the responsibilities and authority of SORC. A written charter, approved by the Station Manager, designates membership, authority and rules for conduct of activities.

e. NHY Purchasing Department

NHY Purchasing is minimally involved in the implementation of the Program, since quality aspects concerned with procurement of materials and services that are within the scope of the Program are performed by the Seabrook Station staff and Nuclear Quality Group. Specific functions and responsibilities of the Purchasing Department, which interface with Station activities, are: 54 56 54 56

1. Issue Purchase Orders in response to Material Purchase Requests that are generated and approved at Seabrook Station.

2. Maintain current the commercial status of Purchase Orders.

17.2.1.4 Authority to Stop Work

a. NHY

The Nuclear Quality Manager and his designated alternates have the responsibility and written authority to stop work or other activities that are not in compliance with the Program. 54

b. YNSD

The YNSD Director of QA and, through him, personnel of the YNSD-QAD have the responsibility and authority to stop work, if required, on activities delegated to YNSD.

17.2.1.5 Responsibility to Report

Included in the corporate policy, and an essential part of this Program, is the responsibility of all Seabrook Station, YNSD, and Nuclear Support Services personnel working within the scope of this Program, to report to their supervisor any equipment, work or other activity that is not in compliance with this Program. Should the circumstances warrant such action, particularly when a substantial safety hazard or when the public health and safety is

involved, the situation is to be further reported to the Compliance Manager or to the Nuclear Quality Manager, or to other increasingly higher levels of Seabrook Station management until appropriate action is observed to be undertaken. 54

17.2.2 Quality Assurance Program

17.2.2.1 Outline

The commitments outlined in each section form the basis for preparation of procedures, instructions and other administrative controls. This ensures that activities affecting the testing, repair, and design of the applicable structures, systems, or components are controlled and documented in a quality manner. To ensure the effectiveness of the QQAP, the commitments of each section and their implementing controls are audited as described in Subsection 17.2.18.

The Program is implemented on structures, systems, or components at least 90 days prior to fuel load or at the time of final acceptance by the Station staff. The transfer of responsibility for design control activities may occur after final acceptance turnover. This transfer of responsibility will be as determined by the Vice President - Nuclear Production. 54 56 56

The QQAP focuses on the Seabrook Staff activities, however, where a major portion of an activity is performed by a group other than the Seabrook Staff, the group or organization is identified and discussed.

17.2.2.2 Scope

Structures, Systems, and Components

The QQAP applies to structures, systems or components which are required to assure:

1. The integrity of the reactor coolant pressure boundary;

2. The capability to shut down the reactor and maintain it in a safe shutdown condition or;

3. The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to the guideline exposures in 10CFR100.

These structures, systems and components have been designated as Safety Class 1, 2, 3; Class 1E or seismic category 1, and as listed in Tables 3.2-1 and 3.2-2. They are also identified as safety-related instrumentation and controls in FSAR, Sections 7.1 through 7.6 and I&C for safety-related fluid systems. 56

In addition, certain other structures, systems, components, and activities determined to be within the scope of the OQAP are listed below:

a. Fuel Assemblies

b. Control Rods

c. Steam Generator Steam Flow Restrictors

d. Missile Barriers

e. Computer Programs

Computer programs which form a basis for design, modification or operation of the structures, systems, and components identified above require administrative controls which are subject to the OQAP. Procedures specify the development, approval, certification, control and use of these programs to assure that assumptions, processing and application of results are consistent with Station design commitments.

f. Expendable and Consumable Items

Expendable and consumable items, when used in safety-related activities, are considered to be within the scope of the OQAP, and will be subject to the pertinent requirements of the OQAP. The requirements will be evaluated on a case-by-case basis.

g. Fire Protection Program

The Operational Quality Assurance Program applies to those portions of Seabrook Station Fire Protection Program described in FSAR Section 9.5.1.2. The scope of the QA program extends to the fire protection system required to protect fire areas containing safety-related equipment and to fire protection equipment whose failure would result in damage to safety-related equipment, rendering such equipment inoperable.

The scope extends to equipment such as:

1. Fire detection equipment

    a. Detectors

    b. Supervisory panels

    c. Related circuitry

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2. Suppression systems

a. Water supply including storage tanks, motor driven and diesel driven fire pumps

b. Yard piping including the loop main and branch piping to and including the last valve ahead of branch piping outside the protected area

c. Exterior fire hydrants as listed in the Technical Specifications

d. The following equipment located within the protected area

(1) Spray and sprinkler systems listed in the Technical Specifications.

(2) Fire hose stations listed in the Technical Specification.

3. Fire penetration barriers

a. Fire rated assemblies including walls, floor/ceilings, cable tray enclosures separating safety-related fire areas or separating portions of redundant systems important to safe shutdown within a fire area.

b. Sealing devices in fire rated assembly penetrations including fire doors, fire windows, fire dampers, cable and piping penetration seals and ventilation seals.

h. Spent Fuel Pool Liner

Backfits, repairs or modifications to the spent fuel pool liner will be conducted under the scope of the OQAP.

i. Flood Prevention Design Features

Modifications of the site and roof drainage systems, the seawall, retaining walls, and other revetments surrounding the plant will be evaluated to determine if their implementation will increase the flood vulnerability of safety-related items. Those modifications determined to affect safety-related items will be covered by the OQAP.

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17.2.2.3 Program Implementation

It is recognized that the degree of Program applicability varies with different systems and activities. 53

The degree to which the requirements of this Program and its implementing procedures are applied are based upon the following:

- o The importance of malfunction or failure of the item to plant safety. 53 56
- o The potential degradation of a safety related function as a result of performing an activity. 53
- o The complexity or uniqueness of the item. 56
- o The need for special controls and surveillance or monitoring of processes, equipment and operational activities.
- o The degree to which functional compliance can be demonstrated by inspection or test.
- o The quality history and degree of standardization of the item or activity.

A three-level approach is defined to assure program implementation to the degree necessary.

a. Level 1 - This level includes independent inspections and tests performed during routine and non-routine activities by appropriately trained personnel.

b. Level 2 - This level includes surveillance and monitoring activities that are performed by the Nuclear Quality Group. Such activities may include observation of tests, inspections and significant activities; review of records and procedures, and verification of test reports. 56

Records of surveillance and monitoring activities are maintained.

c. Level 3 - This level includes a comprehensive audit and evaluation program initiated by the Nuclear Quality Manager to assure proper functioning of Levels 1 and 2. This level includes measures performed to verify that activities required by the OQAP are established, implemented and satisfy regulatory requirements. 54

17.2.2.4 Program Standards

NHY maintains a working knowledge of applicable industry codes, standards, federal regulations and guides. The OQAP, complies with the following references and the regulatory position of the Regulatory Guides, except as noted in Appendix 17A. 56

a. 10 CFR, Part 50, Appendix A - General Design Criteria For Nuclear Power Plants.

b. 10 CFR, Part 50, Appendix B - Quality Assurance Criteria For Nuclear Power Plants and Fuel Reprocessing Plants.

c. 10 CFR, Part 50.55a - Codes and Standards.

d. 10 CFR, Part 50.59 - Changes, Tests and Experiments.

e. 10 CFR, Part 71, Subpart H - Quality Assurance Criteria For Shipping Packages For Radioactive Material.

f. 10 CFR, Part 50.34 (b.6.ii) Final Safety Analysis Report.

g. Regulatory Guide 1.8, May 1977, Personnel Selection and Training (endorses ANSI-N18.1-1971, however, ANS3.1-1978 will be the standard used). 56

h. Regulatory Guide 1.26, Rev. 3, February 1976, Quality Group Classification, and Standards For Water, Steam, and Radioactive Waste Containing Components of Nuclear Power Plants.

i. Regulatory Guide 1.29, Rev. 3, September 1978, Seismic Design Classification.

j. Regulatory Guide 1.30, August, 1972, Quality Assurance Requirements for the Installation, Inspection and Testing of Instrumentation and Electrical Equipment, (endorses ANSI-N.45.2.4-1972).

k. Regulatory Guide 1.33, February 1978, Quality Assurance Program Requirements (Operation), (endorses ANSI-N18.7-1976/ANS-3.2).

l. Regulatory Guide 1.37, March 1973, Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants, (endorses ANSI-N45.2.1-1973).

m. Regulatory Guide 1.38, May 1977, Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage and Handling of Items for Water-Cooled Nuclear Power Plants, (endorses ANSI N45.2.2-1972).

n. Regulatory Guide 1.39, September 1977, Housekeeping Requirements for Water-Cooled Nuclear Power Plants, (endorses ANSI-N45.2.3-1973).

o. Regulatory Guide 1.58, September 1980, Qualification of Nuclear Power Plant Inspection, Examination and Testing Personnel, (endorses ANSI-N45.2.6-1978).

p. Regulatory Guide 1.64, June 1976, Quality Assurance Requirements for the Design of Nuclear Power Plants. (endorses ANSI-N45.2.11-1974).

q. Regulatory Guide 1.74, February 1974, Quality Assurance Terms and Definitions, (endorses ANSI-N45.2.10-1973).

r. Regulatory Guide 1.88, October 1976, Collection, Storage and Maintenance of Nuclear Power Plant Quality Assurance Records, (endorses ANSI-N45.2.9-1974).

s. Regulatory Guide 1.94, April 1976, Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants, (endorses ANSI-N45.2.5-1974).

t. Regulatory Guide 1.116, May 1977, Quality Assurance Requirements for Installation, Inspection and Testing of Mechanical Equipment and Systems, (endorses ANSI-N45.2.8-1975).

u. Regulatory Guide 1.123, July 1977, Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants (endorses ANSI-N45.2.13-1976).

v. Regulatory Guide 1.144, September 1980, Auditing of Quality Assurance Programmed for Nuclear Power Plants, (endorses ANSI N45.2.12-1977).

w. Regulatory Guide 1.146, August 1980, Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants, (endorses ANSI N45.2.23-1978).

x. Branch Technical Position (BTP) APCSB 9.5-1, Appendix A.

The Technical Specifications shall be the governing document in case of conflict between the Technical Specifications and the above references.

Exceptions, Alternatives and clarifications to the referenced standards are noted in Appendix 17A.

17.2.2.5 Program Revision

The Nuclear Quality Manager is responsible to maintain the OQAP current. All proposed changes, whether reflecting editorial comments or major program policy revisions, are forwarded to the Nuclear Quality Manager for approval and control.

Procedural controls are required to ensure that prior to making any change to the OQAP, a written evaluation shall be prepared to identify the change, the reason it is needed, and the basis for concluding that the change results in an OQAP that continues to meet the criteria of Appendix B of 10 CFR 50. Changes to the OQAP, as described in this section, are submitted to the NRC in accordance with 10 CFR 50.54.

17.2.2.6 Procedures

a. NHY

To implement the quality assurance policies identified in the OQAP and to assure compliance with the 10 CFR 50 Appendix B criteria, procedures are prepared, reviewed, and approved in accordance with OQAP requirements. Qualified individuals in the Nuclear Quality Group will be responsible for performing reviews of documents affecting quality and safety, including changes thereto. The QA/QC review is to assure that the necessary QA/QC requirements are properly and correctly stated and that the procedures meet the FSAR requirements. A matrix in Appendix 17B reflects the individual 10 CFR 50 Appendix B criteria met by program documents. 54 56

b. YNSD

The Nuclear Quality Group annually performs a management assessment of YNSD-QA as described in 17.2.1.2.b.(3). 56

c. On-Site Contractors

The Nuclear Quality Group approves the QA programs of contractors and service agencies which are engaged in on-site OQAP related work activities. 54 56

17.2.2.7 Management Evaluation

a. In addition to any major quality problems which are immediately brought to the attention of upper management, the Nuclear Quality 54

Manager conducts quarterly meetings which gives the Vice President - Nuclear Production ongoing cognizance of the implementation and adequacy of the OQAP. The meetings address areas of audit, surveillance, and inspection results; quality trends; significant problems and interactions with the regulatory agencies. 54 56 56

b. NSARC performs a bi-annual audit of the OQAP and submits a report to the Senior Vice President. This report provides NHY management with an independent assessment of the OQAP. The NSARC identifies and tracks corrective action. 56

17.2.2.8 Indoctrination and Training

The Quality Assurance portion of the non-licensed training program consists of introductory and specialized training.

The introductory training segment instructs new or transferred employees, who may perform quality related activities, in the purpose, scope and method of implementation of quality-related manuals, instructions and procedures. This segment also describes the company organization, interface with regulatory bodies and other topics pertinent to the employees job description. Specialized training in areas of inspection, test, and auditing leads to certification or qualification of individuals. This training is initiated as early as practical to meet OQAP objectives. For the formal training programs, documentation includes the objectives, content of the Program, attendees, and dates of attendance. 56 56 56

The scope, technical content, and frequency of training is determined by the Nuclear Quality Manager. Tests are given to those NQG personnel performing and verifying activities affecting quality. Acceptance criteria are developed to determine if individuals are properly trained and qualified. Employee proficiency is maintained by retraining, reexamining, or recertifying. 56

The licensed training program, discussed in Subsection 17.2.1.3.a.4, assures that a sufficient number of appropriately trained and licensed individuals are available to operate Seabrook Station.

17.2.3 Design Control

17.2.3.1 Scope

The designs of structures, systems and components described in Section 17.2.2.2 are controlled. Design control is applied to activities such as field engineering; core physics, seismic, stress, thermal, hydraulic, and accident analyses; and associated computer programs. Design controls consider compatibility of materials; accessibility for inservice inspection, maintenance and repair; and the acceptance criteria for tests and inspections. 56

17.2.3.2 Design Document Preparation, Review and Approval

The preparation, review and approval of design documents such as design criteria, design drawings, computer programs, specifications, and procedures require the interface of NHY, YNSD, and vendors/contractors. Procedures are established which include requirements for a documented check to verify the completeness and adequacy of design drawings and specifications. The organizational elements involved with the design document preparation, review and approval are the Engineering Services Department of the Seabrook Staff, Nuclear Quality Group and YNSD engineering. The Nuclear Quality review is to assure that the necessary QA/QC requirements are properly and correctly stated and that the documents meet FSAR requirements and applicable procedures. The interface between organizations is procedurally defined to assure proper control and to maintain design activity awareness of those activities of reviews, approval, release and distribution of the documents. 53 56 53 56

Criteria and methods used by vendors/contractors which may affect the design of Seabrook are evaluated and approved prior to use.

17.2.3.3 Design Verification

The assigned lead design group or organization (i.e., NHY, YNSD, supplier, architect engineer) ensures that the designs and materials are suitable and that they comply with the design criteria, quality standards and regulatory requirements. Design verification is performed by individuals other than those who performed the original design. The extent of design verification is determined by the complexity of the system, the safety function to be performed and the applicable regulatory requirements, codes, standards, FSAR commitments and QA requirements. Procedures provide criteria for identifying which organization or group performs the design verification including the method of verification (i.e., design review, alternate calculation or test). 53 53

If testing is chosen, the most adverse design basis conditions are stipulated and demonstrated. Procedures identify the criteria for determining the verification by testing. Prototype, component, or feature testing will be performed as early as practicable prior to installation, but will always be performed before the structure, system, or component is relied upon to perform its safety function. 53 56 53

Procedures which control the design verification activities specify internal and external interfaces. The methods used by the verifier are documented. Computer programs are certified prior to use and their application is specified. Procedures require that design verification must be complete prior to relying upon the structure, system, or component to perform its function.

Procedures control design verification and specify which documents receive formal design verification by interdisciplinary or multiorganizational teams and those which can be reviewed by a single individual. Design documents 53

subject to procedural control include, but are not limited to, specifications, calculations, computer programs, the FSAR when used as a design document, and drawings including piping and instrument diagrams, control logic diagrams, and electrical single line diagrams. Specialized reviews will be used when uniqueness or special design considerations warrant. Procedures specify the responsibilities of the verifier, the areas and features to be verified, the pertinent considerations to be verified, and the extent of required documentation.

17.2.3.4 Design Changes

Changes to the design of Seabrook Station require the same design control measures that were applicable to the original design. YNSD Engineering normally reviews changes to the design, unless review responsibility is specifically delegated to another organization. SORC will review safety related changes to the design of Seabrook Station to ensure that no unreviewed safety questions exist. Procedures which may be affected by safety related design changes will be reviewed to ensure their continued effectiveness. Administrative procedures ensure that the responsible Station personnel are aware of the changes which may affect their duties. Station design changes and related changes to station procedures are controlled and incorporated in the licensed training program. 54

17.2.3.5 Deviations

Procedures exist to document and control deviations from approved design documents, including design standards that could adversely affect structures, systems and components. Also included, is the control of deviations from specified quality standards. In the case of errors or deficiencies, action is taken to determine the cause and to initiate appropriate changes based on the significance or recurrence of the error/deficiency. Errors/deficiencies may be revealed by verification measures, use of the document, audit, tests, actual failure, or other means.

17.2.4 Procurement Document Control

17.2.4.1 Procurement Planning

The Seabrook Staff is the organizational element responsible for procurement activities. In this effort, they identify tasks and assign responsibilities to execute an integrated procurement plan.

17.2.4.2 Procurement Document Preparation and Review

The Seabrook Staff has the primary responsibility for preparation and review of procurement initiating documents e.g., Material Purchase Request (MPR). The content and routing within the staff are procedurally defined. The MPR content includes, as appropriate:

a. Scope of Procurement

b. Technical Requirements

c. Quality Assurance Requirements

d. Documentation Requirements

e. Rights of Access Provisions

f. Nonconformance Reporting Provisions

g. Administrative and reporting requirements

h. Required drawings

i. Required specifications

j. Required codes and industrial standards

k. Test and inspection requirements

l. Special process instructions

The routing of an MPR within the Nuclear Production organization consists of a technical and a quality review. The technical review, based on written guidelines, ensures that appropriate technical, regulatory and special requirements are included and properly identified. The quality review is based on the Program and is performed by Nuclear Quality Group personnel to assure the quality requirements are properly specified. The quality reviews are based on written guidelines and include: 56 53 56

a. Quality requirements - correctly stated and verifiable by inspection, test or document review. 53 56

b. Acceptance and/or rejection criteria.

c. Review and approval of the procurement document to assure that it meets the OQAP requirements.

For commercial "off-the-shelf" items where specific quality assurance controls appropriate for nuclear applications cannot be imposed in a practicable manner, special quality verification requirements will be established to provide the necessary assurance of an acceptable item. This may include but not limited to receipt inspection, tests and/or document review. 56

Upon completion of the Nuclear Production activities, the NHY Purchasing Department transcribes the MPR information on a purchase order (P.O.). The NHY Purchasing Department cannot waive or change any technical and quality requirements of a procurement document without proper authorization from the Seabrook Staff and NQG. Copies of the MPR and executed P.O. are maintained at Seabrook Station as quality records and for subsequent receipt inspection functions. 56 53 56 56