

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

March 29, 1983

OFFICE OF THE
SECRETARY

MEMORANDUM FOR: Chairman Palladino

FROM: Samuel J. Chilk, Secretary *SC*

SUBJECT: QUALITY ASSURANCE INITIATIVES (COMNP-83-2)

A majority of the Commission has agreed with your proposals in COMNP-83-2 and the attached Staff Requirements memorandum has been forwarded to the staff for action.

Attachment:
As stated

cc: Commissioner Gilinsky
Commissioner Ahearne
Commissioner Roberts
Commissioner Asselstine
OGC
OPE
OIA
EDO

8508210188 850805
PDR FOIA
LEIGHT084-293 PDR

SHAW, PITTMAN, POTTS & TROWBRIDGE

A PARTNERSHIP OF PROFESSIONAL CORPORATIONS

1800 M STREET, N.W.

WASHINGTON, D.C. 20036

(202) 822-1000

TELECOPIER

(202) 822-1099 & 822-1199

RAPIDFAX 100

(202) 822-1072

TELEX

892693 (SHAWLAW WSH)

CABLE "SHAWLAW"

JOHN F. DEALY*

B. SCOTT CUSTER, JR.

COUNSEL

DEBORAH B. BAUSER
SCOTT A. ANENBERG
CAMPEL, KILLER
PAUL M. THOMAS
JOHN M. BRYSON, II
GEORGE F. ALBRIGHT, JR.*
DAVID J. CYNAMON
SETH H. MOOGASIAN
SHEILA M. HARVEY
DELISSA A. RIDGWAY
KENNETH J. HAUTMAN
DAVID LAWRENCE MILLER
FREDERICK L. KLEIN
STEVEN P. PITLER
RICHARD J. FREDERICK
ELLEN A. FARRIN
ROBERT C. BOEHM
MARIE N. DOLAND
THOMAS C. HILL
DIANE E. BURLEY
L. DUANE CHEEK
HANNAH E. M. LIEBERMAN
JUDITH A. SANDLER
EDWARD D. YOUNG, III
ANDREW D. ELLIS
RICHARD A. SAMP
THOMAS E. CROCKER, JR.
VICKI R. HARDING
PETER J. FERRARA
HELEN TORELLI

MARTHA BOONE ROWAN*
KENNETH R. MILLER
WENDOLIN A. WHITE
STANLEY M. BARG
LESLIE K. SMITH
VIRGINIA S. RUTLEDGE
KATHERINE P. CHEEK
TRAVIS T. BROWN, JR.
RICHARD H. KRONTHAL
STEPHEN B. HEIMANN
SANDRA E. BRUSCA
EILEEN L. BROWNELL
PAMELA H. ANDERSON
ALEXANDER D. TOMASZCZUK
JEFFREY J. A. GIBBS
LAURENCE W. COHEN
PHILIP D. PORTER
MICHAEL A. SWIGER
ELLEN SHERIFF
ANITA J. FINKELSTEIN
EILEEN M. GLEIMER
DAVID R. SAHR
C. BOWDOIN TRAIN
JEFFREY W. KAMPELMAN
KENNETH A. GALLO
KENNETH D. AUERBACH
ALAN D. WASSERMAN
DAVID K. RYAN
RICHARD K. A. BECKER
WILBERT WASHINGTON, II
* NOT ADMITTED IN D.C.

RAMSAY D. POTTS, PC
STUART L. PITTMAN, PC
GEORGE F. TROWBRIDGE, PC
STEPHEN D. POTTS, PC
GERALD CHARNOFF, PC
PHILLIP D. BOSTWICK, PC
R. TIMOTHY HANLON, PC
GEORGE M. ROGERS, JR., PC
FRED A. LITTLE, PC
JOHN B. RHINELANDER, PC
BRUCE W. CHURCHILL, PC
LESLIE A. NICHOLSON, JR., PC
MARTIN D. KRALL, PC
RICHARD J. KENDALL, PC
JAY E. SILBERG, PC
BARBARA M. ROSSOTTI, PC
GEORGE V. ALLEN, JR., PC
FRED DRASNER, PC
R. KENLY WEBSTER, PC
NATHANIEL P. BREED, JR., PC
MARK AUGENBLICK, PC
ERNEST L. BLAKE, JR., PC
CARLETON S. JONES, PC
THOMAS A. BAXTER, PC
JAMES M. BURGER, PC
SHELDON J. WEISEL, PC
J. PATRICK HICKEY, PC
J. THOMAS LEHART, PC
STEVEN L. MELTZER, PC
DEAND AULICK, PC

JOHN ENGEL, PC
C. THOMAS HICKS III, PC
CHARLES B. TEMKIN, PC
STEPHEN B. HUTTLER, PC
WINTHROP N. BROWN, PC
JAMES B. HAMLIN, PC
RANDAL B. KELL, PC
ROBERT E. ZAHLER, PC
ROBERT B. ROBBINS, PC
STEVEN M. LUCAS, PC
DAVID M. RUBENSTEIN, PC
MATIAS F. TRAVIESO DIAZ, PC
VICTORIA J. PERKINS, PC
JOHN H. O'NEILL, JR., PC
JAY A. EPSTEIN, PC
JEFFERY L. YABLON, PC
JACK MCKAY, PC
RICHARD E. GALEN
ELISABETH M. PENDELTON
HARRY H. GLASSPIEGEL
THOMAS H. MCCORMICK
WILLIAM P. BARR
CHARLES H. MONTAGNE
JEAN M. GALLOWAY
JOHN L. CARR, JR.
PHILIP J. HARRY
ROBERT M. GORDON
BARBARA J. MORGAN
BONNIE S. GOTTLIEB
HOWARD H. SHAFFERMAN

April 17, 1984

WRITERS DIRECT DIAL NUMBER

202-822-1496

Mr. J. M. Felton, Director
Division of Rules and Records
Office of Administration
United States Nuclear Regulatory
Commission
Washington, D. C. 20555

FREEDOM OF INFORMATION
ACT REQUEST

FOIA-84-292
Rec'd 4-19-84

Re: Freedom of Information Request

Dear Sir:

Pursuant to the Freedom of Information Act, 5 U.S.C. §552 and 10 C.F.R. Part 9, I hereby request copies of all records relating to the Ford Amendment Study performed by the Nuclear Regulatory Commission ("NRC") and by others at the behest of the NRC pursuant to The NRC Authorization Act for fiscal years 1982-83 (Public Law 97-415), Section 13 (the "Ford Amendment").

This request encompasses, but is not limited to (1) all records of meetings, correspondence, notes, memoranda, investigations, observations and interviews relating in any way to authorization, investigation, data compilation, preparation, organization and presentation of the Ford Amendment Study Report; (2) all records of meetings, correspondence, notes, memoranda, investigations, observations and interviews relating in any way to "case studies" of commercial nuclear power plant projects performed in preparation of the Ford Amendment Study Report; (3) all records of meetings, correspondence, notes, memoranda, investigations, observations and interviews arising out of the NRC "pilot program" performed pursuant to Section 13(c) of the Ford

Dupe

84-11290215

SHAW, PITTMAN, POTTS & TROWBRIDGE

A PARTNERSHIP OF PROFESSIONAL CORPORATIONS

Mr. J. M. Felton, Director
April 17, 1984
Page Two

Amendment; (4) all records of meetings, correspondence, notes, memoranda, investigations, observations and interviews arising out of the NRC analysis of audits of nuclear power plant construction performed pursuant to Section 13(b) of the Ford Amendment; (5) all records of meetings, correspondence, notes, memoranda, investigations, observations and interviews arising out of the NRC analysis of the feasibility and benefits of a more prescriptive approach for defining principal architectural and engineering criteria performed pursuant to Section 13(b)(1) of the Ford Amendment; (6) all records of meetings, correspondence, notes, memoranda, investigations, observations and interviews arising out of the review and analysis of the NRC's organization, methods, and programs for quality assurance performed pursuant to Section 13(b) of the Ford Amendment; (7) all records of meetings, correspondence, notes, memoranda, investigations, observations and interviews arising out of the analysis of project, organizational and institutional issues associated with quality in nuclear power plant design and construction performed by Battelle Memorial Institute's Human Affairs Research Center; (8) all records of meetings, correspondence, notes, memoranda, investigations, observations and interviews arising out of a review of other selected programs for the assurance of quality performed using Pacific Northwest Laboratory as lead contractor; (9) all records of meetings, correspondence, notes, memoranda, investigations, observations and interviews arising out of consultations and interaction with the public, licensees, the Advisory Committee on Reactor Safeguards, associations of professionals and any others performed in preparation of the Ford Amendment Study Report; and (10) all records of meetings, correspondence, notes, memoranda, investigations, observations and interviews arising out of the establishment of a group of outside senior and expert consultants to provide individual comments on Ford Amendment Study activities and findings.

To assist in your search, I am enclosing a copy of the Ford Amendment Study Report.

I hereby agree to pay the prescribed fees for locating and copying the records sought by this request.

SHAW, PITTMAN, POTTS & TROWBRIDGE
A PARTNERSHIP OF PROFESSIONAL CORPORATIONS

Mr. J. M. Felton, Director
April 17, 1984
Page Three

Do not hesitate to contact me if you have any questions
or comments.

Very truly yours,

A. Patrick Leighton III
A. Patrick Leighton III

APL/mlw
Enclosure

IMPROVING QUALITY AND THE ASSURANCE OF QUALITY
IN THE DESIGN AND CONSTRUCTION OF
COMMERCIAL NUCLEAR POWER PLANTS

A REPORT TO CONGRESS

BRIEFING SLIDES FOR PRESENTATION

APRIL 4, 1984

TO

NUCLEAR REGULATORY COMMISSION

R. C. DEYOUNG, IE
G. T. ANKRUM, IE
W. D. ALTMAN, IE

PRIMARY FOCUS OF THE FORD AMENDMENT

- DETERMINE UNDERLYING, CAUSAL FACTORS AND ROOT CAUSES OF:
 - QUALITY-RELATED PROBLEMS IN DESIGN AND CONSTRUCTION OF NUCLEAR POWER PLANTS
 - UNTIMELY DETECTION AND CORRECTION OF THOSE PROBLEMS
- EVALUATE SPECIFIC ALTERNATIVES PROPOSED IN FORD AMENDMENT
- RECOMMEND IMPROVEMENTS TO NRC'S AND INDUSTRY'S PROGRAMS FOR ASSURANCE OF QUALITY

STUDY FINDINGS

PRIMARY ROOT CAUSES OF QUALITY-RELATED PROBLEMS

- FAILURE/INABILITY OF UTILITY MANAGEMENT TO ENSURE ADEQUATE CONTROL OF THE PROJECT
- FAILURE/INABILITY OF NRC PROGRAMS TO SCREEN ADEQUATELY THE CAPABILITY OF APPLICANTS TO MANAGE AND CONTROL THE DESIGN AND CONSTRUCTION

STUDY CONCLUSIONS

FIVE SPECIFIC ALTERNATIVES OF FORD AMENDMENT:

1. MORE PRESCRIPTIVE A/E CRITERIA - NO

NEED TO REDUCE NUMBER OF DESIGN CHANGES AND STRIVE FOR MORE COMPLETE DESIGN

2. REQUIRE DEMONSTRATION OF APPLICANT'S ABILITY TO IMPLEMENT MANAGEMENT AND QUALITY PROGRAMS - YES

REQUIRE POST-CP DEMONSTRATION (1-2 YEARS AFTER CP).
STRENGTHEN NRC PRE-CP REVIEW OF APPLICANT'S MANAGEMENT AND PROGRAM CAPABILITIES. ESTABLISH SPECIAL ADVISORY BOARD OF MANAGEMENT PEERS TO ADVISE NRC ON APPLICANT QUALIFICATIONS.

STUDY CONCLUSIONS

FIVE SPECIFIC ALTERNATIVES OF FORD AMENDMENT: (CONT.)

3. AUDITS BY PROFESSIONAL ORGANIZATIONS - NO
ENCOURAGE AND SUPPORT INDUSTRY INITIATIVES IN THIS AREA, SUCH AS INPO.
SEE NUMBER 5 FOR RECOMMENDATION ON INDEPENDENT AUDITS.
4. IMPROVE NRC ORGANIZATION, METHODS, AND PROGRAMS - YES
MANY IMPROVEMENTS HAVE BEEN IDENTIFIED AND ARE BEING IMPLEMENTED. THE
FOLLOWING EXAMPLES ARE GIVEN:

INCREASE NRC INSPECTION IN DESIGN AREA AND OF VENDORS AND SUPPLIERS.
SHIFT INSPECTION EMPHASIS TO REVIEW OF HARDWARE AND UTILITY PROGRAM
IMPLEMENTATION WITH LESS EMPHASIS ON PAPERWORK AND RECORDS. INCREASE
NRC TEAM INSPECTIONS TO BETTER INTEGRATE NRC FINDINGS. STATION
RESIDENT INSPECTORS AT CONSTRUCTION SITES AS EARLY AS POSSIBLE.

STUDY CONCLUSIONS

FIVE SPECIFIC ALTERNATIVES OF FORD AMENDMENT: (CONT.)

5. INDEPENDENT (THIRD-PARTY) AUDITS - YES

STUDY AND PILOT PROGRAM FOUND AND DEMONSTRATED BENEFITS OF THIRD-PARTY AUDITS. SHOULD BE REQUIRED PERIODICALLY (EVERY TWO YEARS). REQUIRES RULE-MAKING. IN INTERIM, CAT INSPECTIONS WILL BE INCREASED TO COVER MORE PLANTS.

STUDY RECOMMENDATIONS

1. IMPROVE NRC SCREENING OF APPLICANT'S ABILITY TO MANAGE AND PROVIDE OVERSIGHT OF DESIGN AND CONSTRUCTION PROCESS.
 - NRC PRE-CP PROGRAMS STRENGTHENED
 - EARLY DEMONSTRATION OF ABILITY, VERIFIED BY THIRD-PARTY AUDIT
 - ADVISORY PANEL OF MANAGEMENT PEERS TO PROVIDE COUNSEL TO NRC
2. IMPROVE NRC PROGRAMS. FOR EXAMPLE, EXPAND ABILITY TO PERFORM TREND ANALYSIS AND ROOT-CAUSE ANALYSIS, INCREASE NRC MANAGEMENT APPRAISAL CAPABILITY, EMPLOY MORE TEAM INSPECTIONS, AND MINIMIZE NRC REGULATORY CHANGES.

ALTERNATIVE b(4)

IMPROVEMENT OF THE COMMISSION'S ORGANIZATION, METHODS, AND PROGRAMS FOR QUALITY ASSURANCE DEVELOPMENT, REVIEW AND INSPECTION

STUDY FOUND A NUMBER OF AREAS IN WHICH NRC PROGRAM COULD BE IMPROVED

PREVENTION/IMPROVED MANAGEMENT

- PRE-CP REVIEW OF QUALIFICATIONS
- POST-CP MONITORING OF MANAGEMENT AND QA EFFECTIVENESS
- EFFECTIVENESS OF QA PROGRAMS
- INSPECTION ATTENTION TO MANAGEMENT ISSUES
- INSPECTION PRIORITIZATION
- TREND ANALYSIS

DETECTION/LOWERED THRESHOLD

- RESIDENT INSPECTOR PROGRAM
- TEAM INSPECTIONS
- CAT
- IDI
- THIRD PARTY AUDITS

ASSURANCE

- IDVP/THIRD PARTY
- QA OF NRC

AREAS REQUIRING FURTHER STUDY

1. OPERATIONS QA
2. PRIORITIZATION OF QA MEASURES
3. MEASURING EFFECTIVENESS OF QA PROGRAMS
4. COMPLETE DESIGN AT CP STAGE
5. CONFIGURATION CONTROL/MANAGEMENT OF CHANGE
6. READINESS REVIEWS
7. QUALITY ENGINEERING
8. PROJECT OWNERSHIP AND MANAGEMENT ARRANGEMENTS/PUC INTERFACES
9. DESIGNATED REPRESENTATIVES
10. LIMITING NUMBER OF CPs