FENOC

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Docket Number 50-346

License Number NPF-3

Serial Number 1-1374

July 2, 2004

Mr. James L. Caldwell, Administrator
United States Nuclear Regulatory Commission
Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

Subject: Re-submittal of Corrective Action Program Implementation Independent Assessment Plan for the Davis-Besse Nuclear Power Station

Dear Mr. Caldwell:

The purpose of this letter is to re-submit the assessment plan and related information for the independent outside assessment of the Davis-Besse Nuclear Power Station (DBNPS) Corrective Action Program (CAP) implementation. The original CAP Implementation Assessment Plan was submitted on June 15, 2004, via DBNPS letter Serial Number 1-1367.

The Nuclear Regulatory Commission (NRC) letter, dated March 8, 2004, "Approval to Restart the Davis-Besse Nuclear Power Station, Closure of Confirmatory Action Letter, and Issuance of Confirmatory Order," (letter Log 1-4524) requires submittal of the identity of the outside assessment organization, including the qualifications of the assessors, and the scope and depth of the assessment plan ninety (90) days prior to the assessment. The CAP Implementation Assessment Plan was originally submitted on June 15, 2004, 90-days prior to the planned beginning of the assessment. The DBNPS is re-submitting the identical CAP Implementation Assessment Plan, including the identification and qualifications of the assessors, due to the retraction of the request to have the assessors biographies withheld from public disclosure. This re-submittal has been discussed with Mr. D. Passehl, NRC Project Engineer, Corrective Action Program Focus Area lead.

This Assessment remains scheduled to commence on September 13, 2004 and will last approximately one week. This re-submittal of the identical CAP Implementation Assessment Plan and the attached biographies supercedes the original submittal in its entirety.

Specifically, this re-submittal retracts the request to have Attachment 3 withheld from public disclosure originally requested by DBNPS letter Serial Number 1-1367. Attachment 3 contains the professional work histories of the independent consultants performing the CAP implementation assessment. The assessors have given consent to release their work history information contained in Attachment 3. These biographies do not contain personnel or medical information that should be withheld from public disclosure.

If you have any questions or require further information, please contact Mr. Clark A. Price, Project Manager - DBNPS 0350 Process and Confirmatory Order, at (419) 321-8585.

Sincerely yours,

JCS

Attachments

cc: USNRC Document Control Desk
J. A. Grobe, Chairman NRC 0350 Panel
J. B. Hopkins, DB-1 NRC/NRR Senior Project Manager
C. S. Thomas, DB-1 Senior Resident Inspector
Utility Radiological Safety Board

COMMITMENT LIST

The following list identifies those actions committed to by FENOC's Davis-Besse Nuclear Power Station (DBNPS) in this document. Any other actions discussed in the submittal represent intended or planned actions by the DBNPS. They are described only for information and are not regulatory commitments. Please notify the Manager - Regulatory Affairs (419-321-8450) at the DBNPS of any questions regarding this document or associated regulatory commitments.

COMMITMENTS	DUE DATE
None. Serial 1-1374 contains no new commitments.	N/A

Docket Number 50-346
License Number NPF-3
Serial Number 1-1374
Attachment 2

Davis-Besse Nuclear Power Station
Corrective Action Program Implementation
Independent Assessment Plan

(6 pages to follow)

Corrective Action Program
Implementation Assessment Plan

NUMBER:
2004-0100

ASSESSMENT AREA:

Corrective Action Program Implementation

PURPOSE:

The purpose is to provide an independent and comprehensive assessment of the Corrective Action Program implementation at the Davis-Besse Nuclear Power Station. The assessment will be performed in accordance with the requirements of the March 8, 2004, Confirmatory Order Modifying License No. NPF-3, and Davis-Besse Business Practice DBBP-VP-0009, Management Plan for Confirmatory Order Independent Assessments. The assessment will be used to identify areas for improvement, requiring corrective actions with action plans, and observations for other improvement opportunities. The assessment will also be used to assess the rigor, criticality, and overall quality of available Davis-Besse internal self-assessment activities in this performance area.

SCOPE:

The Independent Assessment Team will evaluate the following areas associated with the Corrective Action Program implementation:

- Identification, Classification and Categorization of Conditions Adverse to Quality,
- Evaluation and Resolution of Problems,
- Corrective Action Implementation & Effectiveness,
- Effectiveness of Program Trending,
- Effect of Program Backlogs, and
- Effectiveness of Internal Assessment Activities,
    - Self-Assessments
    - Onsite and Offsite Safety Review Committee activities
    - Other Assessments as applicable
- Corrective actions taken in response to the NRC Special Team Inspection - Corrective Action Program Implementation - Report 05000346/2003010

The Assessment Team will conduct the following activities:

1. Identification, Classification and Categorization of Conditions Adverse to Quality

The Assessment Team will perform a review of activities to assess the effectiveness of the identification, classification and categorization of Conditions Adverse to Quality, such as:

a. Evaluate the actual identification, classification, and categorization of selected Conditions Adverse to Quality.
b. Through interviews with a selected sample of individuals from various parts of the Davis-Besse Nuclear Power Plant's staff, ascertain the Davis-Besse Nuclear Power Plant staff's and management's commitment to the Corrective Action Program, the extent of their understanding of the Davis-Besse Nuclear Power Plant's problem identification process, and their willingness to report problems.
c. Evaluate the adequacy of the Davis-Besse Nuclear Power Plant's identification, classification, and categorization of corrective actions for operational experience feedback.
d. Evaluate the Davis-Besse Nuclear Power Plant's Corrective Action and Maintenance Rule Monitoring Programs for broad implementation problems or program deficiencies, if the above review indicates the potential for such problems.

2. Evaluation and Resolution of Problems

The Assessment Team will perform an analysis of selected issues or problems to identify strengths and weaknesses in the evaluation and resolution of problems.

a. Analyze the apparent cause and root cause evaluation of selected Condition Reports.
b. Analyze selected issues, that should have been identified on corrective action documents but were not or were only partially identified; that indicate adverse trends or patterns (e.g. recurring or longstanding problems) but were not identified as such; or for any other event or issues that may indicate a lack of effectiveness in identifying and correcting problems.
c. Analyze the problems selected above. Determine the Davis-Besse Nuclear Power Plant's effectiveness in implementing the Corrective Action Program.
d. Identify any strengths and any weaknesses or slow response identified during the detailed analysis above.

3. Corrective Action Implementation & Effectiveness

The Assessment Team will perform an analysis of corrective action implementation and effectiveness.

a. Evaluate the timeliness of corrective actions.
b. Review the number of repeat condition reports and corrective actions and evaluate the effectiveness of corrective actions.
c. Evaluate the adequacy of the Davis-Besse Nuclear Power Plant's implementation of corrective actions for operational experience feedback.
d. Review the activities of the Corrective Action Review Board (CARB) and evaluate the effectiveness of the CARB.

4. Effectiveness of Program Trending

The Assessment Team will perform an analysis of the effectiveness of the trending of the corrective actions.

a. Review the deficiencies tracked in the Corrective Action and Maintenance Rule Monitoring Programs.
b. Evaluate the effectiveness of the Corrective Action Trending Program.

5. Effect of Program Backlogs

The Assessment Team will perform an analysis of the effect of program backlogs on organizational and operational effectiveness.

a. Review program backlogs and the trend of the backlogs.
b. Evaluate the impact of the backlog and backlog trend on organizational and operational effectiveness.

6. Effectiveness of Internal Assessment Activities

Self-Assessments

The Assessment Team will evaluate the effectiveness of the Davis-Besse Nuclear Power Plant's self-assessment activities associated with the implementation of the Corrective Action Program.

a. Review the results of Davis-Besse Nuclear Power Plant audits that evaluated the effectiveness of the implementation of the Corrective Action Program. Determine if the audits were comprehensive and were effective actions taken to correct problems or weaknesses identified.
b. Evaluate the effectiveness of self-assessment capability by reviewing corrective actions associated with self-assessment reports, audits (including audits of both onsite and offsite safety committee activities), and evaluations conducted on the implementation of the Corrective Action Program. Evaluate the significance of a sample of other self-assessment findings to determine the effectiveness of the self-assessment effort.
c. Determine if the Davis-Besse Nuclear Power Plant staff is aggressive in correcting self-assessment findings on the implementation of the Corrective Action Program and determine whether the corrective actions are adequate, timely, properly prioritized, and that effectiveness reviews are ensuring the desired results.
d. Interview selected individuals involved with the oversight function, as well as the audited organization, to gain their insight on the effectiveness of their effort and the responsiveness of utility management and staff to issues raised.

Onsite and Offsite Safety Review Committee Activities

The Assessment Team will evaluate the effectiveness of the safety committees oversight of the implementation of the Corrective Action Program by reviewing committee minutes, audits, or other actions initiated by the committees as they relate to risk significance, major corrective action successes, or failures. The Assessment Team will review the following as necessary:

a. Identify what issues are reviewed by the safety committees and review the actions initiated by the safety committees to identify, assess, and correct areas of weakness.
b. Review audits of the Corrective Action Program conducted under the cognizance of the offsite safety committee and determine if the audit findings were consistent with such external assessments as INPO, NRC and consultants.
c. Evaluate the Davis-Besse Nuclear Power Plant's follow-up to items on the Corrective Action Program identified by the safety committees, including committee-initiated audit findings and any recurring problems.

Other Assessments
The Assessment Team will evaluate the effectiveness of the Davis-Besse Nuclear Power Plant's self-assessment activities associated with other performance areas. Based on the observations and findings of the assessment of the implementation of the Corrective Action Program, the Assessment Team may select assessments other performance area for review and evaluation.

7. Evaluate corrective actions taken in response to the NRC Special Team Inspection - Corrective Action Program Implementation - Report 05000346/2003010

The Assessment Team will perform a focused evaluation of the corrective actions taken in response to the NRC Special Team Inspection - Corrective Action Program Implementation - Report 05000346/2003010

a. Review the report which evaluated the effectiveness of the implementation of various aspects of the corrective action program, including: (1) identifying and documenting plant design-related deficiencies; (2) categorizing and prioritizing safety issues for resolution; (3) conducting apparent and root cause analyses; (4) determining extent of condition and (5) implementing appropriate and timely corrective actions to ensure adequate resolution of problems.
b. Review the corrective actions taken in response to the report, including
    - addressing weaknesses in identifying and evaluating the nature and extent of issues when performing apparent cause evaluations to identify the cause(s) and full scope of necessary corrective actions, particularly in the area of safety system design deficiencies, and
    - addressing weaknesses in adequacy of engineering work products, including analyses and calculations.
c. Evaluate the effectiveness of the corrective actions taken.

<u>INDEPENDENT ASSESSMENT TEAM</u>:

- Dr. Jack W. Roe, SCIENTECH, Team Leader
- Frank Miraglia, Independent Consultant
- Morris Branch, Independent Consultant
- Sharon Wheeler, Lead Self-Evaluation Specialist, H. B. Robinson
- John Osborne, Corrective Action Program Manager, San Onofre
- James P. O'Neil, Corrective Action Program Manager, Quad Cities

Biographies attached.

Corrective Action Program
Implementation Assessment Plan

SCHEDULE:

- May 24 through June 11, 2004, develop, review and submit assessment plan to NRC.
- July 1, 2004, send selected documentation to team members to begin off-site preparations.
- September 13, 2004, assessment team will assemble at the plant for final assessment preparations.
- September 13 through 17, 2004, conduct onsite assessment and provide Davis Besse with preliminary results prior to leaving site.
- Final team assessment report will be provided to Davis-Besse within 14 days after the completion of the on-site assessment.
- Final Davis-Besse assessment report and action plans (if required by findings) will be submitted to the NRC within 45 days of the completion of the on-site assessment.

ASSESSMENT METHODS:

The Independent Assessment Team will use an approach similar to the NRC Inspection Procedure 40500, "Effectiveness Of Licensee Process To Identify, Resolve, And Prevent Problems", and NOBP-LP-2001 "FENOC Focused Self-Assessment" to evaluate the effectiveness of the implementation of the Corrective Action Program.

The assessment methodology may include, but is not limited to, any combination of the following:

- Observing activities
- Interviewing personnel
- Reviewing documentation
- Evaluating or performing trend analysis
- Reviewing procedures, instructions, and programs
- Comparing actual performance levels with pre-established performance indicators

The following general standards of acceptable corrective actions will apply to the Assessment of Davis-Besse Corrective Action Program implementation:

- The problem is identified in a timely manner commensurate with its significance and ease of discovery.
- Identification of the problem is accurate and complete, and includes consideration of the generic implications and possible previous occurrences.
- The problem is properly prioritized for resolution commensurate with its safety significance.
- The root causes of the problem are identified and corrective actions are appropriately focused to address the causes and to prevent recurrence of the problem.
- Corrective actions are completed in a timely manner.

The assessment team will review the referenced procedure/documents during the Preparation Period prior to site arrival.

REFERENCES:

NRC Inspection Procedure 40500, "Effectiveness Of Licensee Process To Identify, Resolve, And Prevent Problems"
NOP-LP-2001, Condition Report Process
NOBP-LP-2001, FENOC Focused Self Assessment
NOBP-LP-2007, Effectiveness Reviews
NOBP-LP-2008, Corrective Action Review Board
Condition Reports and CR trend reports, January 1, 2004, through July 2004
Past NRC inspection reports (CATI, RRATI, M&HP) that are applicable to the area assessed
Past applicable Self-Assessments
QA quarterly assessments for past four quarters
Related Operating Experience (past two years)
CNRB meeting minutes from last four CNRB intervals.
Field Observation reports
Applicable Section or area Performance Indicators
Previous Independent Assessment Reports and Action Plans (subsequent to first annual assessments)

ASSESSMENT PLAN APPROVALS:

Prepared by: Jack W Roe Date: 6-8-04
Jack W. Roe, Assessment Team Lead

Approved by: Clark A. Price Date: 6/10/04
Clark A. Price, Project Manager

Approved by: Ralph L. Hansen Date: 6/11/04
Ralph L. Hansen, Executive Sponsor

Docket Number 50-346
License Number NPF-3
Serial Number 1-1374
Attachment 3

Davis-Besse Nuclear Power Station
Corrective Action Program Implementation
Independent Assessment
Assessors and Qualifications

(6 pages to follow)

Dr. Jack W. Roe
Director, Regulatory Support Services and
Senior Executive Consultant
Scientech, Inc.

- 1999 - present: *Scientech, Inc.* – Regulatory Support - Member of the Davis-Besse Nuclear Power Plant Engineering Assessment Board to provide senior level oversight and technical review during the two-year regulatory shutdown and restart period. Conducted System Health Readiness Reviews for fluid, electrical and ventilation systems to approve system health readiness for these systems. Reviewed regulatory-mandated programs at Davis-Besse for structure, thoroughness, and readiness for restart. Provided extensive licensing support for the nuclear industry, which included activities such as the development of Licensing Amendment Requests and licensing issues.

  License Renewal - Managed the License Renewal Services for the following clients: Arkansas Nuclear One, Hatch Nuclear Plant, Turkey Point Units 3 and 4, Peach Bottom Atomic Power Station. Assisted in the development and finalization of several License Renewal Applications.

  High Level Waste - Conducted safety and licensing reviews of the Department of Energy's Yucca Mountain High Level Waste Repository Project. The reviews include a detail evaluation of the Site Recommendation Consideration Report and programmatic advice for developing and implementing the strategy, approach, and schedule for the facility.

  Materials Licensing - Conducted a safety and licensing review of the Department of Energy's Remote Handled Waste Facility at the West Valley Demonstration Project. The review included a detail evaluation of the Preliminary Safety Analysis Report and programmatic advice for developing and implementing the strategy, approach, and schedule for the facility.

- 1976-1999: *U. S. Nuclear Regulatory Commission (NRC)* - Deputy Executive Director - Supported the Executive Director by managing the safety, administrative and financial operations of the agency. Supervised the Office of the Executive Legal Director, Office of Administration, Office of Resources Management, Office of International Programs, Office of State Programs, and the Office of Small Business and Civil Rights.

  Reactor Programs Management - Supervised nine Senior Executives and managed a division of 130 staff members. Responsible for national programs in a wide range of significant areas including nuclear power plant license renewal for more that 40 years, environmental issues, advanced nuclear power plant designs, nuclear power plant decommissioning, emergency preparedness, security, radiation protection, financial matters, and antitrust matters. U.S. Delegate to the International Atomic Energy Agency's Convention on Nuclear Safety, and international treaty.

  Project Management for Regions III and IV - Supervised seven Senior Executives and managed 60 staff members performing the overall safety and environmental project management function and monitoring daily operations of 48 nuclear power plants.

  Licensee Performance and Quality Evaluation - Supervised six Senior Executives and 50 staff members for the nationwide implementation of maintenance inspections of nuclear power plants, operator licensing and qualification programs, assurance of quality inspections, emergency procedures development and use, and systematic assessment of licensed performance.

Frank J. Miraglia, Jr.
Senior Nuclear Regulatory Advisor
Scientech, Inc.

- 2001 - present: *Scientech, Inc.* - Independent Consultant
- 1975-2001: *U. S. Nuclear Regulatory Commission (NRC)* - Management - Program management experience with U. S. government organizations from 10 to 1,500 persons. Deputy Executive Director for Operations – directed all NRC reactor regulatory programs, including the four NRC Regional Offices. Nuclear Reactor Safety Management - Directed and implemented nuclear reactor regulation programs including licensing, inspection, enforcement, and rulemaking. Also directed and implemented the NRC regulatory program for training and licensing reactor operators. Positions held included the following:
    - Deputy Executive Director for Reactor Programs
    - Director Executive Director for Regulatory Programs
    - Deputy Director of the Office of Nuclear Reactor Regulation
    - Associate Director of Technical Assessment and Inspection, Office of Nuclear Reactor Regulation
    - Associate Director of Projects, Office of Nuclear Reactor Regulation
    - Division Director in Reactor Regulation for Combustion Engineering and Babcock & Wilcox reactor licensing, reactor system safety and radiological safety
    - Deputy Division Director in Reactor Regulation for Licensing
    - Assistant Director for Safety Assessment
    - Branch Chief of Licensing Projects
    - Chief of Resource and Scheduling Branch
    - Rogovin Report Task Group Leader For Assessment of Radiological Releases from the TMI-2 Accident
    - Environmental Project Manager for a number of light water reactors for construction and operations
    - Co-group Leader for Reassessing Fuel Cycle Environmental Impacts associated with a 1000 MWe reactor

  Operational Readiness Review - Led NRC operational readiness team reviews as part of licensing reviews following the TMI-2 accident. Focus included not only plant physical condition, but also licensed operators' training and readiness. Security - Developed and implemented security standards for U.S. commercial nuclear industry, including both powers reactor and major fuel cycle facilities. Participated in two Task Forces assessing safety/safeguards interface and the vital island concept.

  Emergency Preparedness - Directed NRC reactor safety and protective measures teams in headquarters emergency response organization. Led and participated in NRC emergency response exercises for commercial nuclear facilities, both reactor and non-reactor facilities. Developed NRC emergency preparedness regulations and directed their implementation. Y2K - Implemented the regulatory response for NRC's oversight of the nuclear industry Y2K response. Represented NRC on the President's Y2K Conversion Council 1998 through 2000.
- 1967 - 1975: *U. S. Atomic Energy Commission* - Environmental Project Manager, Chemical Engineer, Division of Nuclear Materials Safeguards.

Morris W. Branch
Executive Consultant
Scientech, Inc.

- 2003 - present: *Scientech, Inc.* – Assisted the Japanese in implementing a NRC type inspection program in Japan. Developed material and presented information to NUPEC (Japan's Research or National Lab) and METI (Japan's NRC) associated with training requirements for NRC inspectors, how to conduct QA type inspections, and development of a Resident Inspector Program in their country. Also provided information to Tokyo Electric and Power to assist them in understanding upcoming changes in their regulator's oversight.

- 2003: *Wisconsin Electric Company* - Performed independent system level review for the Asset Owner to determine feasibility and vulnerabilities associated with license renewal efforts at Point Beach Nuclear Power Plant.

- 2002: *First Energy Nuclear Operating Company* - Participated as a member of an independent Validation Team at Davis-Besse Nuclear Power Plant. Performed review and assessments of products prior to their presentation to and review by the NRC. Provided technical and regulatory guidance to the Engineering Design Manager as to strategy in dealing with NRC identified issues associated with Engineering. Also participated as an outside consultant and voting member of the management level Restart Station Review Board.

- 2001-2002: *Dominion Generation* - Conducted independent review of utilities implementation of QA Topical Report in the areas of inspections and inspector qualifications at Surry and North Anna Nuclear Power Stations. Conducted Independent reviews of the utilities Employee Concerns Program for the Dominion facilities and provided a written assessment to the Chief Nuclear Officer. Conducted employee interviews and program acceptance surveys.

- 2000-2001:*Consolidated Edison of New York* - Advised the Design Engineering Manager on technical issues associated with the NRC's Large Team Inspection of the Indian Point 2 facility. Developed several "White Papers" in response to NRC concerns and advised on strategy to keep the plant operating while concerns were being evaluated and resolved.

  Provided direct quality oversight of the Engineering portion of the Steam Generator Replacement efforts. Reviewed technical reports and licensing issues prior to approval. Developed and implemented detailed oversight plans and issued periodic assessments and surveillance reports. Certified as a Lead-Auditor under the company's program.

- 1980-1999: *U. S. Nuclear Regulatory Commission (NRC)* - Transition Task Force Lead for Development of the SDP. Convened a twelve-member panel to review the feasibility of the new reactor oversight process and presented the results along with additional insights to the NRC.

  Team Leader - planned, staffed and managed system design evaluation teams comprised of contract personnel from Architect Engineering firms. Section - Chief Engineering Group In Division of Reactor Safety - managed 15 or more engineers responsible for inspecting areas such as Fire Protection, MOV and Section XI Programs, and Post Maintenance Testing.

  NRC Restart Coordinator - developed strategy and implemented the NRC's restart review efforts for Sequoyah Unit 2. Senior Resident Inspector - supervised and performed in-depth evaluations of day to day reactor operations and abnormal conditions.

Sharon A. Wheeler
Lead Nuclear Self Evaluation Specialist
Robinson Nuclear Project (RNP)

- 1999 - present: *Robinson Nuclear Project* - Lead Nuclear Self Evaluation Specialist - Responsible for managing RNP's Corrective Action Program in accordance with regulatory and administrative requirements. Site lead for the Self Evaluation cornerstones. Member of INPO Performance Improvement Committee. Position is in daily communication with site Unit Evaluators and site management. Conducts site trend analyses and implements corrective action recommendations. Focuses on strengthening RNP's Human Performance awareness. Participates on the Passport Action Tracking Team. Received Progress Energy's prestigious Competitive Edge Award for recommending a new reactor cavity seal and saving the company significant critical path time, dose, and cost.
- 1994-1999: *Robinson Nuclear Project* - Senior Technical Specialist - Responsible, during outages, for managing the activities of all involved work groups (approximately 1,000 people) to optimize performance regarding scope, schedule, cost, nuclear and personnel safety, and radiation exposure. Responsible, during operating periods, for future outage planning including optimum utilization of personnel and minimizing outage duration and dose. Managed shifts of 500 to 1000 people during 2 refueling outages at RNP. Identified efficiency and nuclear safety improvements. Certified Senior Reactor Operator.
- 1991-1994: *Robinson Nuclear Project* - Refueling Coordinator - Responsible, during an outage, for managing the activities of approximately 100 contractors in all aspects of reactor, steam generator, and reactor coolant pump maintenance while minimizing schedule, cost, and dose and maximizing nuclear and personnel safety. Responsible, during operating periods, for future outage planning, including upgrading plant equipment to ensure optimized performance. Negotiated and administered performance based multimillion-dollar contracts with Fortune 500 companies. Consistently reduced schedule, cost, and dose with each outage performance. Position required excellent organization, innovation, communication, negotiation, project management, and technical skills.
- 1986- 1991: *Robinson Nuclear Project* - Senior Contracts Specialist - Responsible for negotiating and administering multiple contracts simultaneously. Focused on reducing contractor cost while improving quality and efficiency of work. Recognized in writing for contract cost savings realized as a result of contract negotiations.
- 1982-1986: *Robinson Nuclear Project* - Engineering Technician, Mechanical - Responsible for minor HVAC and piping designs and mechanical drawing accuracy for Progress Energy's nuclear and fossil generating plants.

John B. Osborne
Corrective Action Program Manager
San Onofre Nuclear Generating Station

- 2002 - present: *San Onofre*; Corrective Action Program (CAP) Manager - Managing the Corrective Action Program. Defining implementation standards/processes and monitoring implementation/effectiveness via participating in core activities, conducting independent reviews, and publishing metrics and performance reports.
- 1996-2002: *San Onofre*: Programs & Assessment Engineer - Developed and maintained Corrective Action and Self-Assessment processes and mentored the line organizations in conducting cause evaluations for more significant equipment/human performance events.
- 1994-1996: *San Onofre*; Assessment Engineer - Conducted equipment/human performance root cause and common cause evaluations for line organizations and the Nuclear Safety Concerns program.
- 1989-1994: *San Onofre*; Independent Safety Engineering Group Engineer - Reviewed NCR dispositions, evaluated industry operating experience for applicability to SONGS, and conducted root cause evaluations for significant equipment/human performance events involving line organizations and the Nuclear Safety Concerns program.
- 1987-1989: *San Onofre*; Maintenance Supervisor - Supervised the group in defining EQ maintenance activities, reviewing design changes for impact on the maintenance program, and responding to Quality Assurance findings for the Maintenance organization.
- 1986-1987: *San Onofre*; Maintenance Engineer - Supported the Maintenance line organization by defining EQ maintenance activities, responding to Quality Assurance findings, and working special projects as directed by management including a Maintenance readiness review for an INPO evaluation.
- 1982-1986: *San Onofre*; Quality Assurance Engineer - Performed civil, mechanical and electrical surveillances/inspections, and established/operated a civil materials test lab in partnership with another civil engineer.
- 1982-1982: *San Onofre*; Contact Quality Control Inspector - Performed civil quality control reviews/inspections including working off a backlog of civil inspection documents requiring engineering review/disposition of findings.
- 1979-1982: *Schwerin, Xinos and Associates;* Civil Engineer - Performed project/design activities from planning through construction for residential and commercial land development projects.

James P. "Pat" O'Neil
Corrective Action Program Manager
Quad Cities - Exelon Nuclear

- 2001 - present: *Exelon;* Corrective Action Program (CAP) Manager - Coordinates Site Corrective Action Program including: Departmental CAP Coordinators, Root Cause Investigators, Site Coding and Trending, Develops and implements CAP Improvement Plans and Procedures. Root Cause SME. Team Lead for four PIR Inspections, Participated in Kewaunee INPO E&A as CAP peer.
- 1999 - 2001: *Exelon*; Root Cause Coordinator (CAP Analyst) - Facilitate Corrective Action Review Board (CARB), Review Root Cause and Apparent Cause packages, SME Root Cause Analysis. Team Lead for NRC Pilot Problem Identification and Resolution Inspection. Corporate CAP Improvement Team Member.
- 1997 - 1999: *Entergy*; Senior Technical Specialist – Nuclear Safety & Regulatory (Licensing – Reportability / LERs / Inspection Support / presentation preparation) Areas of specialty within Licensing included Operations, Emergency Preparedness, and Corrective Action Program. Team Lead for three NRC 40500 CAP inspections. Non-departmental work included: Significant Event Response Team Root Cause Expert, Team Leader STAR Trainer, Team Leader Human Performance Team, ISEG Representative, Alternate Employee Concern Coordinator.
- 1996 - 1997: *Entergy*; Employee Concerns Coordinator - Investigation and disposition of sensitive confidential issues.
- 1994 - 1996: *Entergy*; In-House Events Analysis (IHEA) Root Cause Analysis SME Event Review, CARB Package Review
- 1990 - 1994: *Entergy*: Operations Training Instructor - Developed and administered training including Fundamentals, BWR Systems, General Systems, NEO, and Initial License. Supervised LOTM upgrade project, Operations Management Monitoring Team, System Responsibility Program Development.
- 1987 - 1990: Various Nuclear Contract Outage Positions at seven plants while attending Graduate School for various utilities including CECO, Duke, PECO, and GPU and GSU including Radiation Protection, Instrument Calibration and Repair, and Training.
- 1978 - 1986: *U.S. Navy;* Nuclear Repair Facility (AD-38) - Overseas assignment, Supervised Instrument Repair and Calibration Facility, Supervised Training Program, Managed (Senior enlisted) Nuclear Repair Facility. Reactor Operator USS Nathan Hale SSBN 623. Navy Training included: Boot Camp, Basic Electricity and Electronics (BE&E), Electronic Technicians School, 6 month assignment teaching BE&E, Nuclear Power School, and S3G Prototype Training.