

Sargent & Lundy^{LLC}

Don K. Schopfer
Vice President
312-269-6078

June 27, 1997
Project No. 9583-100

Document No. 50-423

Northeast Nuclear Energy Company
Millstone Nuclear Power Station, Unit No. 3
Independent Corrective Action Verification Program

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

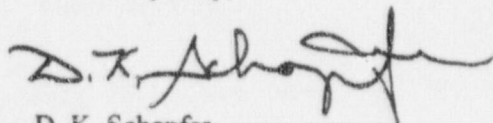
The Confirmatory Order for the Millstone Independent Corrective Action Verification Program (ICAVP) requires that the NRC approve project team members for the organization selected to perform the ICAVP, including any substitutions and additions. The following are resumes and Conflict-of-Interest statements for current S&L staff, required for the ICAVP program, which have not been previously submitted to the NRC. This completes the outstanding resumes and Conflict-of-Interest statements listed on Exhibit 5 of Rev. 3 of the Audit Plan.

- R. Hameetman (C-O-I only)
- D. Feingold (Resume and C-O-I) Substitution for K. R. Novatny
- J. Wakeland (C-O-I only)
- S. Grulke (Resume and C-O-I) Addition
- V. Balodis (Resume only)
- A. Caruso (Resume and C-O-I) Addition
- J. Kleam (C-O-I only)

Please direct any questions to me at (312) 269-6078.

9707010041 970627
PDR ADOCK 05000423
P PDR

Yours very truly,



D. K. Schopfer
Vice President and ICAVP Manager

Copies:

E. Imbro (1/4) Deputy Director, ICAVP Oversight
T. Concannon (1/2) Nuclear Energy Advisory Council
J. Fougere (1/3) NU
B. A. Erler (1/0)



DAVID FEINGOLD
Mechanical Project Engineering Division
Mechanical Project Engineer

EDUCATION

Master of Science, Engineering Management
University of South Florida - 1996

Bachelor of Science, Chemical Engineering
University of Virginia - 1975

REGISTRATION

Professional Engineer - Florida
Professional Engineer - Virginia

PROFICIENCIES

Project Management
Mechanical Engineering
Chemical Engineering
Startup and Field Engineering
Nuclear Systems Operations and Maintenance
Waste Management
Online Sampling
HVAC

RESPONSIBILITIES

As a mechanical project engineer, Mr. Feingold performs as the lead on various engineering projects. He serves as a liaison between departments and divisions and coordinates and monitors project activities. He monitors and processes engineering change documents and prepares or reviews various safety-related calculations. He ensures that work conforms to applicable Sargent & Lundy, client, and industry standards and procedures. In addition, he maintains communication with client and with vendors and contractors to verify that work is progressing satisfactorily toward scheduled completion.

EXPERIENCE

Since joining Sargent & Lundy in 1996, Mr. Feingold has performed engineering studies and prepared engineering documents in support of design basis reconstitution.

Prior to joining Sargent & Lundy in 1996, Mr. Feingold was employed by a utility as a Senior System Engineer assigned to two operating 760 MW pressurized water reactor units. His responsibilities included coordination and support of maintenance, engineering, and operational activities to ensure safe, economical and reliable performance of nuclear plant systems/processes with continuously improving availability.

Mr. Feingold's specific experience includes:

- Maine Yankee Atomic Power Company
 - Maine Yankee, nuclear, 860 MW. Prepared design basis documents. (1997 to present)
- Consumers Power Company
 - Palisades 1, nuclear, 812 MW. Performed engineering analyses for internal plant flooding. Revised/updated design basis documents. (1996)

EXPERIENCE BEFORE SARGENT & LUNDY

- FLORIDA POWER & LIGHT COMPANY (FPL) 1981-1996
 - Turkey Point Units 3 and 4, nuclear, 760 MW

Senior System Engineer. Responsible for the coordination and support of maintenance, engineering, and operational activities to ensure safe,



DAVID FEINGOLD
Mechanical Project Engineering Division
Mechanical Project Engineer

economical and reliable performance of nuclear plant systems/processes with continuously improving availability. (1989-1996)

Valve Component Specialist. Provided technical support and supervisory oversight for the repair and refurbishment of station valves and their control systems. (Special Assignment to Maintenance During Refuelings, 1994 - 1996)

- FPL Corporate Offices

Regulatory Affairs Liaison/Coordinator. Responsible for the coordination and assistance in the preparation of testimony, exhibits, and Minimum Filing Requirements for rate cases, prudence hearings, and power production planning filings with the Florida Public Service Commission and the Federal Energy Regulatory Commission. (1987 - 1989)

Senior Design Engineer. Responsible for the design of backfits to the Turkey Point and St. Lucie Nuclear Power Plants. Design activities were in the areas of : nuclear safety, piping, HVAC, instrument and control, radiation shielding, radioactive waste treatment, source reduction, handling, and ultimate disposal, and upgrades, improvements and refurbishment to plant processes. (1981-1987)

- NEWPORT NEWS INDUSTRIAL CORPORATION (subsidiary of Newport News Ship Building)

- *Research and Development Engineer* for the commercialization of a radioactive waste volume reduction system. Specific design activities included HVAC system design, topical licensing report and safety analysis preparation, purchasing specifications development, and system mass and energy balance calculations. (1979-1981)

• MONSANTO INDUSTRIAL CORPORATION

- *Process Engineer* for the manufacture of rubber chemicals. Responsible for the development and implementation of process improvements in environmental control, energy conservation, product yield and quality, industrial hygiene and safety. (1977-1978)

• GENERAL TELEPHONE & ELECTRIC (GTE, AUTOMATIC ELECTRIC)

- *Staff Chemical Engineer* for the manufacture of telephones. Responsible for engineering and manufacturing support in the areas of metal finishing, heat treatment, waste treatment, and laboratory controlled analyses. (1976-1977)

CONFLICT-OF-INTEREST STATEMENT

MILLSTONE - Independent Corrective Action Verification Program (ICAVP)

David J. Feingold
Proposed Consultant

Sargent & Lundy LLC
Consultant's Employer

My participation in the Millstone Unit 3 ICAVP [() does (x) does not] involve situations or relationships in which I had direct previous involvement with activities at the plant that I will be reviewing and I [() have (x) do not have] conflicting roles that might bias my judgment in relation to my work on the ICAVP. In addition

1. (x) I have not been previously employed by Northeast Nuclear Energy Company (NNECO) or any of its predecessors.

() I have been previously employed by NNECO or some of its predecessors. (State the nature of the employment.)
2. (x) I have not previously provided design or engineering services to NNECO for the subject Millstone unit as a contractor or a subcontractor.

() I have previously provided design or engineering services to NNECO for the subject Millstone unit as a contractor or a subcontractor.
3. (x) I have no other business relations (member of NNECO's Board of Directors, member of an Offsite Review Committee, etc.) with NNECO for the subject Millstone unit that may create the appearance of a conflict of interest.

() I have other business relations with NNECO for the subject Millstone unit that may create the appearance of a conflict of interest.
4. (x) I have not been previously employed by the subject Millstone unit's architect-engineer (AE) (Stone & Webster), the nuclear steam supply system (NSSS) vendor (Westinghouse), or any of their predecessors associated with design or construction of the subject Millstone unit.

() I have been previously employed by the subject Millstone unit's AE (_____), the NSSS vendor (_____), or one or more of their predecessors associated with design or construction of the subject Millstone unit. (State the nature of the employment.)
5. (x) I, and my immediate family, do not own or control financial interests (stocks, bonds, mutual funds, etc.) in NNECO, the subject Millstone unit's AE (Stone & Webster), or the NSSS vendor (Westinghouse).

() I, or a member of my immediate family, own or control financial interests (stocks, bonds, mutual funds, etc.) in NNECO, the subject Millstone unit's AE (_____), or the NSSS vendor (_____).

David J. Feingold
Proposed Consultant

Sargent & Lundy LLC
Consultant's Employer

6. Members of my immediate family are not employed by NNECO, the subject Millstone unit's AE (Stone & Webster), or the NSSS vendor (Westinghouse) associated with design or construction of the subject Millstone unit.

Members of my immediate family are employed by NNECO, the subject Millstone unit's AE (_____), or the NSSS vendor (_____) associated with design or construction of the subject Millstone unit. (State the nature of the employment.)

7. My close relatives (aunts, uncles, first cousins) are not employed by NNECO, the subject Millstone unit's AE (Stone & Webster), or the NSSS vendor (Westinghouse) in a management capacity.

My close relatives (aunts, uncles, first cousins) are employed by NNECO, the subject Millstone unit's AE (_____), or the NSSS vendor (_____) in a management capacity. (State the nature of the employment.)

8. Have you been promised any additional compensation, reward or anything of value, contingent upon the position you take on any issue being considered by you in connection with the subject Millstone unit ICAVP? If yes, provide a detailed description of the circumstances.

NO YES. Explain.

9. Do you know of any reason, whether or not inquired about in this questionnaire, that would affect your ability to be completely objective in performing any of the tasks assigned to you in connection with the subject Millstone unit's ICAVP? If yes, provide a detailed description of the circumstances.

NO YES. Explain.

10. Are you aware of anything that might create a perception that you would not act with objectivity in performing any of the tasks assigned to you in connection with the subject Millstone unit's ICAVP? If yes, provide a detailed description of the circumstances.

NO Yes. Explain.

I certify that the statements I have made on this form are true, complete, and correct to the best of my knowledge and if the circumstances surrounding the responses change during performance of the ICAVP for the subject Millstone unit, I will inform the NRC of those changes.

David J. Feingold
Signature

6/11/97
Date

In the above statements, the term "employed" is construed to mean any form of employment, either direct, as a contractor, or as a subcontractor. The term "immediate family" includes the interviewee's children, stepchildren, spouse, parents, stepparents, mother-in-law, father-in-law, brothers-in-law, sisters-in-law, or any person living with the interviewee.

CONFLICT-OF-INTEREST STATEMENT

MILLSTONE - Independent Corrective Action Verification Program (ICAVP)

ROBERT A. HAMEETMAN
Proposed Consultant

SARGENT & LUNDY
Consultant's Employer

My participation in the Millstone Unit 3/1 ICAVP [() does does not] involve situations or relationships in which I had direct previous involvement with activities at the plant that I will be reviewing and I [() have do not have] conflicting roles that might bias my judgment in relation to my work on the ICAVP. In addition

1. I have not been previously employed by Northeast Nuclear Energy Company (NNECO) or any of its predecessors.

() I have been previously employed by NNECO or some of its predecessors. (State the nature of the employment.)
2. I have not previously provided design or engineering services to NNECO for the subject Millstone unit as a contractor or a subcontractor.

() I have previously provided design or engineering services to NNECO for the subject Millstone unit as a contractor or a subcontractor.
3. I have no other business relations (member of NNECO's Board of Directors, member of an Offsite Review Committee, etc.) with NNECO for the subject Millstone unit that may create the appearance of a conflict of interest.

() I have other business relations with NNECO for the subject Millstone unit that may create the appearance of a conflict of interest.
4. I have not been previously employed by the subject Millstone unit's architect-engineer (AE) (STONE & WEBSTER), the nuclear steam supply system (NSSS) vendor (WESTINGHOUSE), or any of their predecessors associated with design or construction of the subject Millstone unit.

() I have been previously employed by the subject Millstone unit's AE (_____), the NSSS vendor (_____), or one or more of their predecessors associated with design or construction of the subject Millstone unit. (State the nature of the employment.)
5. I, and my immediate family, do not own or control financial interests (stocks, bonds, mutual funds, etc.) in NNECO, the subject Millstone unit's AE (STONE & WEBSTER), or the NSSS vendor (WESTINGHOUSE).

() I, or a member of my immediate family, own or control financial interests (stocks, bonds, mutual funds, etc.) in NNECO, the subject Millstone unit's AE (_____), or the NSSS vendor (_____).

ROBERT A. HAMEETMAN
Proposed Consultant

SARGENT & LUNDY
Consultant's Employer

6. Members of my immediate family are not employed by NNECO, the subject Millstone unit's AE (STONE & WEBSTER), or the NSSS vendor (WESTINGHOUSE) associated with design or construction of the subject Millstone unit.
- () Members of my immediate family are employed by NNECO, the subject Millstone unit's AE (_____), or the NSSS vendor (_____) associated with design or construction of the subject Millstone unit. (State the nature of the employment.)
7. My close relatives (aunts, uncles, first cousins) are not employed by NNECO, the subject Millstone unit's AE (STONE & WEBSTER), or the NSSS vendor (WESTINGHOUSE) in a management capacity.
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8. Have you been promised any additional compensation, reward or anything of value, contingent upon the position you take on any issue being considered by you in connection with the subject Millstone unit ICAVP? If yes, provide a detailed description of the circumstances.
- NO () YES. Explain.
9. Do you know of any reason, whether or not inquired about in this questionnaire, that would affect your ability to be completely objective in performing any of the tasks assigned to you in connection with the subject Millstone unit's ICAVP? If yes, provide a detailed description of the circumstances.
- NO () YES. Explain.
10. Are you aware of anything that might create a perception that you would not act with objectivity in performing any of the tasks assigned to you in connection with the subject Millstone unit's ICAVP? If yes, provide a detailed description of the circumstances.
- NO () Yes. Explain.

I certify that the statements I have made on this form are true, complete, and correct to the best of my knowledge and if the circumstances surrounding the responses change during performance of the ICAVP for the subject Millstone unit, I will inform the NRC of those changes.

Robert A. Hammetman
Signature

6-18-97
Date

In the above statements, the term "employed" is construed to mean any form of employment, either direct, as a contractor, or as a subcontractor. The term "immediate family" includes the interviewee's children, stepchildren, spouse, parents, stepparents, mother-in-law, father-in-law, brothers-in-law, sisters-in-law, or any person living with the interviewee.

CONFLICT-OF-INTEREST STATEMENT

MILLSTONE - Independent Corrective Action Verification Program (ICAVP)

Jack Wakeland
Proposed Consultant

Sargent & Lundy
Consultant's Employer

My participation in the Millstone Unit 3 ICAVP [() does does not] involve situations or relationships in which I had direct previous involvement with activities at the plant that I will be reviewing and I [() have do not have] conflicting roles that might bias my judgment in relation to my work on the ICAVP. In addition

1. I have not been previously employed by Northeast Nuclear Energy Company (NNECO) or any of its predecessors.

() I have been previously employed by NNECO or some of its predecessors. (State the nature of the employment.)
2. I have not previously provided design or engineering services to NNECO for the subject Millstone unit as a contractor or a subcontractor.

() I have previously provided design or engineering services to NNECO for the subject Millstone unit as a contractor or a subcontractor.
3. I have no other business relations (member of NNECO's Board of Directors, member of an Offsite Review Committee, etc.) with NNECO for the subject Millstone unit that may create the appearance of a conflict of interest.

() I have other business relations with NNECO for the subject Millstone unit that may create the appearance of a conflict of interest.
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5. I, and my immediate family, do not own or control financial interests (stocks, bonds, mutual funds, etc.) in NNECO, the subject Millstone unit's AE (Stone & Webster), or the NSSS vendor (Westinghouse).

() I, or a member of my immediate family, own or control financial interests (stocks, bonds, mutual funds, etc.) in NNECO, the subject Millstone unit's AE (_____), or the NSSS vendor (_____).

to the best of my knowledge

Jack Wakeland
Proposed Consultant

Sargent & Lundy
Consultant's Employer

6. Members of my immediate family are not employed by NNECO, the subject Millstone unit's AE (Stone & Webster), or the NSSS vendor (Westinghouse) associated with design or construction of the subject Millstone unit.
- () Members of my immediate family are employed by NNECO, the subject Millstone unit's AE (_____), or the NSSS vendor (_____) associated with design or construction of the subject Millstone unit. (State the nature of the employment.)
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- () My close relatives (aunts, uncles, first cousins) are employed by NNECO, the subject Millstone unit's AE (_____), or the NSSS vendor (_____) in a management capacity. (State the nature of the employment.)
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- NO () YES. Explain.
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- NO () YES. Explain.
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- NO () Yes. Explain.

I certify that the statements I have made on this form are true, complete, and correct to the best of my knowledge and if the circumstances surrounding the responses change during performance of the ICAVP for the subject Millstone unit, I will inform the NRC of those changes.

Jack Wakeland
Signature

5-27-97
Date

In the above statements, the term "employed" is construed to mean any form of employment, either direct, as a contractor, or as a subcontractor. The term "immediate family" includes the interviewee's children, stepchildren, spouse, parents, stepparents, mother-in-law, father-in-law, brothers-in-law, sisters-in-law, or any person living with the interviewee.

EDUCATION

University of Wisconsin - Milwaukee, B.S (1975)

PROFICIENCIES

Over twenty years of experience in commercial enterprises, nuclear and fossil industries:

- Engineering (Multiple Disciplines)
 - I&C and Electrical
 - Predictive/Preventive Maintenance
 - Systems Engineer
 - Test Engineering
- Quality Assurance (QA) Engineering
 - Plant/Readiness Assessment
 - Maintenance Cultural Assessment
 - Procedure Preparation and Writing
 - Audits and Surveillance
- Procedure Development/Planning
- Outage Maintenance/Start-up Operations
- Instrumentation/Control Technician
- Walk Downs
- Consultant Services
- Procedures Coordinator/Senior Reviewer
- Electrical Construction Business

Experienced in and worked to but not limited to the following Controlling Documents:

Code of Federal Regulations:

10CFR Appendix B, 10CFR Part 21,
10CFR50.54, 10CFR50.59, 10CFR50.72,
10CFR50.73

NRC Regulatory Guides and NUREGS

RG 1.33, RG 1.73, RG 1.97, RG 1.100,
RG 1.05, RG 1.140, NUREG 1018, NUREG
313-CR, NUREG 4456-CR, NUREG 5583-CR

NRC Inspection Modules - Information Notices
3500, 35230, 62700, 62702, 62704, 81042,
S1053, S2053, IENs 83-06, 84-57, 84-65, 85-39,
85-41, 87-62, 91-52, 92-65

INPO Training Documents -Guidelines Operating Experience Practices

ACAD 91-005, and 92-008, INPO 85-013, INPO
85-016, INPO 92-001, SOER 92-1 INPO 87-002, -
003, -028, INPO 90-001, INPO 92-010 and -014

Certification

BWR Technology Certificate

QA Auditor

TPC Training Systems

POOFAMATICS - Visual Learning Certificate

Computer Literate

EXPERIENCE

Extensive experience with background in maintenance an surveillance procedure development, engineering, performance based audits and assessment surveillance of construction and startup activities, preparation of safety significant reviews and report ability evaluations:

- **Salem 1& 2 and Hope Creek (12/96 - 02/97)**
QA Field Maintenance Plant Assessments and audits to determine the effectiveness and evaluate the performance of those Programs/Processes established for the Maintenance of Nuclear Power Plant Structures, Systems and Components. Scope included Calibration of installed and portable instrumentation. Corrective Maintenance, Control of Contractors, Post Maintenance Testing, Training and Qualifications, Management Oversight, Self-Assessment Program, Maintenance Cultural Assessments, Initiate Action Requests (ARs) for Corrective Maintenance, Condition Resolution, Business

- Process and Significance Level in accordance with plant procedures.
- **All-Pro Services (1992-1996)**
 Consultant Services rendered in the areas of Predictive Preventive Maintenance, Engineering and Technical Writing to the Commercial and DOE Nuclear Industry.
 - **Savannah River Site (07/91-1992)**
 Senior Reactor Quality Engineer and Senior Assurance and Assessment Engineer with the Reactor Restart Department (RRD) Responsible for a broad range of Total Quality Improvement Program (QIP) Performed evaluation engineering activities by interfacing with line organizations to achieve quality performance goals for Reactor Outage and Startup. Ensure that risks and environmental Impacts are minimized to meet goals of safety reliability and maximized performance. Work activities included:
 - RQE, Evaluate and Review, Consolidation of Procedures/Programs
 - Technical review and approval of reactor restart procedures (NQA-1)
 - Training Support Coordinator assistance in the development and writing of training programs/procedures (DOE S500 Series)
 - Reactor QA assessments and work package planning/reviews
 - Senior Reviewer and Writer for DOE/Company QA Manual (DOE S700.6c)
 - Nonconformance Reports (NCR) work package tracking, reviewing/closure
 - QA Auditor Training
 - Initiated, developed and tracked 1Q Programmatic Reactor Safety Improvement Program
 - **Nine Mile Point (01/91-06/91)**
 Maintenance and I&C Engineering Support Department Head Reviewer of writer generated procedures for mechanical, electrical, and I&C departments. The project consisted of upgrading 812 procedures reformatted as specified within NRC, INPO and client Quality Assurance standards/policies in accordance with 10CFR50.59 Human Factors Adequacy. Critiqued written corrections of procedures, EQ requirements, plant equipment and user compatibility, TCN incorporations, and plant impact in accordance with NRC, NTS, and IEEE 388-1978 section compliance.
 - **J.A. Fitzpatrick (NYPA) (1987-1990)**
 I&C Engineer-Planned Maintenance Task Force (PMTF) Engineer. Participated in daily I&C supervisor meeting, evaluated, implemented OERS, and researched applicability of GE Newsletters (SIL) implementation per OER Data Packages. Department Procedure Coordinator-developed and reviewed department procedures.
 - **Salem 1 & 2 (01/86 - 12/86)**
 Multi-disciplined assigned I&C electrical, mechanical, and design classification tasks. Developed plant component databases packages (unique and unclassified). Entered complete data packages into the computer bank for the Managed Maintenance Information Systems (MMIS). As a multiple disciplined engineer, reviewed single functions for the FEGs six categories: Mechanical, Skids, Electrical, Instrument Loops, Protections, AOVs and MOVs. In Design Classification the following categories were reviewed; Safety Related, Seismic, Quality Assurance, Required Environmental Class and Nuclear Class (safety).

- **Byron and Braidwood, Units 1 and 2**
I&C Engineer: Responsible for projected startup for implementation of Quality Assurance programs for the four generating units, BOP and NSSS. Reviewer for process instruments and control index entries.

Projects included incorporating field "as built" and walk down instrument drawings to the master electrical schematics and wiring drawings along with P&IDs, C&IDs, mechanical and furnished drawings. Classification criteria included safety-related and seismic qualification decisions. Developed and modified master data sheets for approximately 45 systems

- **Sierra Pacific Valmy II (1985)**
I&C Test Technician/Supervisor
Responsible for projects involving electrical and mechanical loop checks, initiating and resolving necessary calibration and corrections and verifications for functional operational us. Supervised and advised union shop technicians.
- **Callaway Nuclear Generating Station (1983-1985)**
I&C Test Technician (ANSI Level II)
Performed Quality Assurance instrument reviews, pre-operational and operational surveillance testing, audits and evaluations.
- **Duane Arnold BWR (1980-1983)**
I&C Technician
Maintained, tested, checked, and calibrated a wide variety of I&C systems and components in accordance with the Nuclear Quality Assurance Program. Participated in two outages.

CONFLICT-OF-INTEREST STATEMENT

MILLSTONE - Independent Corrective Action Verification Program (ICAVP)

S. Grubke
Proposed Consultant

Sargent & Lundy
Consultant's Employer

My participation in the Millstone Unit 3 ICAVP does does not involve situations or relationships in which I had direct previous involvement with activities at the plant that I will be reviewing and I have do not have conflicting roles that might bias my judgment in relation to my work on the ICAVP. In addition

1. I have not been previously employed by Northeast Nuclear Energy Company (NNECO) or any of its predecessors.
 - I have been previously employed by NNECO or some of its predecessors. (State the nature of the employment.)
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S. Grulke

Proposed Consultant

Sargent & Lundy

Consultant's Employer

6. Members of my immediate family are not employed by NNECO, the subject Millstone unit's AE (_____), or the NSSS vendor (_____) associated with design or construction of the subject Millstone unit.
- Members of my immediate family are employed by NNECO, the subject Millstone unit's AE (_____), or the NSSS vendor (_____) associated with design or construction of the subject Millstone unit. (State the nature of the employment.)
7. My close relatives (aunts, uncles, first cousins) are not employed by NNECO, the subject Millstone unit's AE (_____), or the NSSS vendor (_____) in a management capacity.
- My close relatives (aunts, uncles, first cousins) are employed by NNECO, the subject Millstone unit's AE (_____), or the NSSS vendor (_____) in a management capacity. (State the nature of the employment.)
8. Have you been promised any additional compensation, reward or anything of value, contingent upon the position you take on any issue being considered by you in connection with the subject Millstone unit ICAVP? If yes, provide a detailed description of the circumstances.
- NO YES. Explain.
9. Do you know of any reason, whether or not inquired about in this questionnaire, that would affect your ability to be completely objective in performing any of the tasks assigned to you in connection with the subject Millstone unit's ICAVP? If yes, provide a detailed description of the circumstances.
- NO YES. Explain.
10. Are you aware of anything that might create a perception that you would not act with objectivity in performing any of the tasks assigned to you in connection with the subject Millstone unit's ICAVP? If yes, provide a detailed description of the circumstances.
- NO Yes. Explain.

I certify that the statements I have made on this form are true, complete, and correct to the best of my knowledge and if the circumstances surrounding the responses change during performance of the ICAVP for the subject Millstone unit, I will inform the NRC of those changes.

Signature

Date

6-12-97

EDUCATION

BSEE, Technical University of Stuttgart

EXPERIENCE

The 30 years of experience range from the startup of large hydro-electric and paper mill projects in Northern Canada, to operation and maintenance of power houses, dams and tunnels in High Sierras California, to fossil and nuclear power - from licensed SRO at NPD Canada, to preoperational and startup work at Tarapur, Peach Bottom, Trojan and River Bend, to engineering and design of distributed safety related control systems.

Most recent experience includes guidance for engineering and design of distributed control systems for nuclear power plants and fiber optic data highways. Also installation, configuration and testing of Bailey Network 90 distributed control systems; evaluation and correction of EDG system reliability problems; evaluation of Equipment requirements to mitigate a plant "Blackout".

Some of the professional challenges encountered and resolved include: the remote startup and control of a turbine-generator without a governor; and the preparation, implementation and management of a simultaneous preoperational and startup test programs at nuclear power plants. Preparation and analysis of Diesel Generator and Loss of Power Test programs.

Design, review and approval of complex control systems, including multi-plexing to control consoles. Evaluate human factors impact. Review equipment seismic and environmental qualifications, including upgrades.

Familiarity and competence with the ANSI and IEEE standards, FPC code, ASME section XI, and other codes associated with licensing and operation of power plants; including NRC Technical Specifications, Reg. Guides and NUREG documents.

Capability to provide guidance and administration for implementation of computer maintained technical data bases for equipment maintenance, surveillance and plant management activities.

His specific experience includes:

KOREA POWER ENGINEERING I&C System Consultant

Generate specifications for plant instrumentation and control systems. Review instructions for the guidance of Ulchin 3 and 4 nuclear power plant i&C design engineers. Review, comment, and recommend vendor proposals and designs. Direct engineering activities associated with the distributed redundant control system for nuclear safety related functions. Assure, and engineer reliable redundant data communication highways for alarms, interlocks, and performance monitoring.

ROCHESTER GAS AND ELECTRIC Staff Engineer

Define Electric Distribution System Functional Inspection review requirements. Review Vital Instrument power supplies, to Reactor Protection. Safeguard and Control Systems.

NRC

Consultant

Member of Inspection Teams
Audit of Browns Ferry 2 Employee Concern Program. Technical consultant to audit Westinghouse responses to Operating Plant issues. Team Member of VIB audit of southern Testing Services.

TROJAN

Portland General Electric

Maintenance Engineer

Modification and Test Engineer

System engineer

Provide replacement for Lead Control and Electrical Engineer while same in SRO training. Define, evaluate and review Design Basis document program. Evaluate reliability issues, determine root causes of failures, correct and redesign as required to eliminate EDG system deficiencies.
Previous 2-3 failures a year reduced to none in 2 years. Provide control system upgrade specifications. Configured, tuned and tested a new Remote Shutdown system utilizing Bailey Network 90 distributed process control system. Upgrade of relaying schemes with solid state devices. Investigated of relaying schemes with solid state devices. Investigated and corrected Main Generator Field ground problems. Prepared Test Specifications and Test Instructions to replace Main Control Room Annunciator with Ronan X500 solid state system. Provided Technical Support to numerous corrective maintenance and refueling outage problems. As maintenance staff engineer generated maintenance work plans, instruction specifications, and instructions.

RIVER BEND

Gulf States

Startup Test and Design Analysis Engineer

Staff Engineer, VP Nuclear Office- Prepare master Startup Plan and NRC compliance Checklists. Review plant readiness for Low Power Licensing Status. Prepare, Review and approve Power Ascension Test Procedures, such as: Main Steam Isolation; Loss of Plant Power; Radiation Surveys; Core Power-Void Response; Loss of Feedwater Heating; Turbine Pressure Control

SHOREHAM

Long Island Lighting/Criscuolo

Surveillance Test Engineer; Licensing Engineer- Prepare technical specifications for submittal to NRC: negotiate settlement in Washington. Carry out negotiations with NRC, to provide technical specifications for alternate emergency power supplies. Review instrumentation set points to improve plant performance and compliance. Review and approve surveillance test procedures and test results.

BWR Units

Staff Engineer

Review field problems, provide solutions, prepare FDI documents. Evaluate and review control layouts. Evaluate and improve control and instrumentation multi-plexing to control consoles. Provide technical support to BWR licensing issues. Define ERIS computer requirements.

DUANE ARNOLD ENERGY CENTER

Iowa Electric

Station Loss of Power tests. The design and installation modifications of an incomplete design of a vendor's 480V switchgear. Modifications and verification of Condenser

Hotwell Level Control. Verification of plant system readiness immediately prior to Fuel Load. Planning and review of power ascension progress.

PEACH BOTTOM UNIT 2
Philadelphia Electric

Procedures, methods, and test result approval of the dynamic tests of plant control loops. The analysis and checkout of system readiness for the Integrated Leak Rate test of Primary Containment. Planning and review of Pre-Operational tests progress.

ARKANSAS NUCLEAR ONE
Arkansas Power

Guide for the Preparation of Pre-operational Test Procedures. Review of the heat tracing of critical equipment piping. Review of the pressurizer installation problems. Circulating water overload problem resolution.

MONTICELLO
Northern States

Preparation of test procedures, checkout and pre-operational test conductance of Emergency Diesels and Station Loss of Power. Preparation of test procedures, checkout of pre-operational testing of Turbine and EHC control systems. Resolution of Moisture Separator problems. Condenser Vacuum Pull Tests. Resolution of Feedwater and condensate cycle problems.

TARAPUR
Indian AEC

Warranty and performance test procedures and tests of units under the ASME test code. Final design review, installation, checkout and pre-operational tests of plant electrical systems. Modifications of emergency core cooling control systems. Resolution of problems and

modifications to the uninterruptible plant power supplies.

PLACER COUNTY WATER AGENCY

In 1965 accepted an offer from Placer County, California to organize and manage the Middle Fork American River Hydro Project through the final stages of construction, testing, and to full power operation, including a successful redesign of starting and stopping a hydraulic turbine without a governor and the remote control of same by radio transmissions.

MIDDLE FORK AMERICAN RIVER
Placer County Water Agency

Review and tests of main generator excitation and voltage control. Review and tests of transmission and generation relaying. Modifications and performance tests of hydraulic turbines. Resolution of microwave remote control system problems.

HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO

Started as an Engineer-in-training left as SRO Licensed Commissioning Supervisor.

DOUGLAS POINT
Ontario Hydro Nuclear

Procedures and tests of power line carrier relaying. Procedures checkouts and tests of radioactive waste systems. Checkouts and pre-operational testing of "On-Power" Refueling Systems. Procedures and tests of turbine and feedwater cycle systems.

NPD RALSTON
Ontario Hydro Nuclear

Procedures and pre-operational tests of Temperature, Flow, and Activity Monitoring systems. Procedures, checkouts and pre-

operational testing of Radioactive Area Ventilation Systems. Checkout and pre-operational testing of reactor neutron monitoring, control and protective systems. Reactor performance tests.

ONTARIO HYDRO

Operation and maintenance of power plants. Operation and maintenance of transmission and distribution networks. Design review and performance tests of new facilities. Design modifications and installation to upgrade older power plants and their auxiliary facilities.

BECHTEL POWER CORPORATION

Started as supervising field engineer at Tarapur Nuclear Power Plant in India. Left as Manager of startup operations for all nuclear power plants in San Francisco head office.

MEMBERSHIP

Institute of Electrical & Electronic Engineers (IEEE)
Project Management Institute (PMI)
American Nuclear Society (ANS)



EDUCATION

University of Illinois - B.S. Electrical Engineering - 1965

PROFICIENCIES

Electrical engineering
Nuclear and fossil plant design and betterment
Quality assurance (QA) auditing

RESPONSIBILITIES

Mr. Caruso directs electrical analysts and draftsmen in development of the conceptual design, design of individual system components, and preparation of bid procurement specifications. In consultation with the senior electrical project engineer, Mr. Caruso evaluates the proposals of manufacturers, makes purchase recommendations, and monitors the activities of manufacturers to ensure that manufacturers' drawings and finished components are received on schedule. He works with the client and with manufacturer and contractor representatives to ensure that the electrical design, engineering, and construction of the power plant incorporate the latest techniques. He coordinates the electrical engineering work with that of other Sargent & Lundy departments. Mr. Caruso reviews specifications and drawings to ensure that all electrical work is correctly done. After plant construction begins, he may make occasional visits to the site to check on progress of the electrical work and to ensure that it is done properly.

EXPERIENCE

Mr. Caruso has extensive experience in the electrical design and engineering of major fossil- and nuclear-fueled steam-electric generating stations. He has been involved in the design and engineering of a gas turbine and natural gas to fuel oil conversion of several plants. He has

been responsible for and directed the work of a group of electrical engineers in the design and engineering of power plant electrical systems. Mr. Caruso has designed and engineered the electrical portions of coal handling systems. Other assignments include fire protection safe shutdown analysis, in-plant fire protection system addition, SO₂ flue gas injection system addition, dry fly ash handling system addition, precipitator field sectionalization, oil separator addition, replacement of boiler room sump pumps, freeze protection addition for condensate storage tanks, and precipitator floor heating addition.

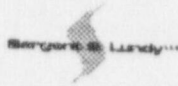
In addition, as a lead quality assurance auditor, Mr. Caruso performed QA audits according to the requirements of Sargent & Lundy's Quality Assurance Program and technical and administrative standards. He planned the audits, prepared and assembled audit checklists, coordinated and conducted audits in accordance with audit assignment instructions, evaluated the technical adequacy of the engineering design and the effectiveness of the controlling procedures, prepared formal reports of the audit findings, and ensured that the audit findings were properly resolved and precluded from recurring. These activities were performed during 1990 and 1991.

Mr. Caruso joined Sargent & Lundy in 1965. His experience includes:

DESIGN EXPERIENCE

Mr. Caruso has been assigned as Electrical Project Engineer on the following projects:

- **Commonwealth Edison Company**
 - LaSalle 1 and 2, nuclear, 1122 MW each.
(1986 to 1990; 1991 to 1994)



ANTHONY S. CARUSO
Electrical Project Engineering Division
Electrical Project Engineer

- **Illinois Power**
 - Clinton 1, nuclear, 985 Mw.
(1982 to 1986) of boiler room sump pumps. (1981 to 1982)
- **Central Power & Light Company**
 - Coletto Creek 1, coal, 570 MW;
 - B. M. Davis 1 and 2, gas and oil, 324 MW each.
(1970 to 1976)
 - LaPalma 7 (gas turbine), gas and oil, 50 MW.
(1973 to 1975)
 - Nueces Bay 7, gas and oil, 352 MW.
(1969 to 1972)
 - E. S. Joslin 1, gas and oil, 258 MW.
(1969 to 1971)
 - LaPalma 6, gas and oil, 167 MW.
(1969 to 1970)
- D. H. Mitchell 4-6 and 11, coal/coal and gas (Unit 4), 529 MW total.
Electrical Project Engineer responsible for precipitator field sectionalization; dry fly ash handling system addition; and precipitator fourth-field addition. (1980 to 1982)
- Michigan 2, 3, and 12, coal/coal and gas (Unit 12), 652 MW total.
Electrical Project Engineer responsible for in-plant fire protection system addition. (1980 to 1982)
- D. H. Mitchell 4, 5, and 11, coal/coal and gas (Unit 4), 391 MW total.
Electrical Project Engineer responsible for Wahlico SO₃ flue gas injection system addition. (1981)

BETTERMENT EXPERIENCE

- **Northern Indiana Public Service Company**
 - Schahfer 14, coal, 521 MW.
Electrical Project Engineer responsible for precipitator floor heating addition and fuel oil-firing addition. (1979 to 1980, 1981 to 1982)
 - Schahfer 14 and 15, coal, 1033 MW total.
Electrical Project Engineer responsible for freeze protection addition for condensate storage tanks and in-plant fire protection system addition. (1979 to 1980, 1981 to 1982)
 - Michigan City 12, coal and gas, 512 MW.
Electrical Project Engineer responsible for oil separator addition and replacement
- Michigan City 2 and 3, coal, 70 MW each.
Electrical Project Engineer responsible for transformer fire protection. (1980 to 1981)
- D. H. Mitchell.
Electrical Project Engineer involved with in-plant fire protection system addition. (1980 to 1981)
- D. H. Mitchell 11, coal, 115 MW each.
Electrical Project Engineer involved with condensate make-up demineralizer system addition. (1979 to 1981)
- **Commonwealth Edison Company**
 - Dresden 2 and 3/Quad Cities 1 and 2, nuclear, 850 MW each;
Electrical Project Engineer involved with fire protection safe shutdown analysis. (1977 and 1978)

- **Central Power & Light Company**
 - Barney M. Davis 1, gas and oil, 324 MW;
 - E. S. Joslin 1, gas and oil, 258 MW;
 - Nueces Bay 7, gas and oil, 352 MW.
Electrical Project Engineer responsible for fuel oil-firing addition. (1973)
- **Wisconsin Electric**
 - Oak Creek, coal and oil, 1192 MW total.
Electrical Engineer involved with additional coal handling system facilities. (1967 to 1969)
- **The Detroit Edison Company**
 - River Rouge, coal and oil, 293 MW;
 - Trenton Channel, coal, 536 MW.
Electrical Engineer responsible for additional coal handling system facilities. (1965 to 1967)

QUALITY ASSURANCE EXPERIENCE

- **Commonwealth Edison Company**
 - Byron 1 and 2/Braidwood 1 and 2, nuclear, 1120 MW each;
 - Dresden 2 and 3; nuclear, 1545 MW total;
 - LaSalle 1 and 2, nuclear, 1036 MW each;
 - Quad Cities 1 and 2, nuclear, 769 MW each;
 - Zion 1 and 2, nuclear, 1040 MW each.
QA Auditor. (1990 to 1991)
- **The Detroit Edison Company**
 - Fermi 2, nuclear, 1093 MW.
QA Auditor. (1990 to 1991)
- **Illinois Power**
 - Clinton 1, nuclear, 930 MW.
QA Auditor. (1990 to 1991)
- **Niagara Mohawk Power Corporation**
 - Nine Mile Point 1, nuclear, 610 MW.

QA Auditor. (1990 to 1991)

- **Rochester Gas and Electric Corporation**
 - Ginna 1, nuclear, 470 MW.
QA Auditor. (1990 to 1991)
- **Tennessee Valley Authority**
 - Watts Bar 1 and 2, nuclear, 1177 MW each.
QA Auditor. (1990 to 1991)
Station Battery Modifications (1995)
- **Wisconsin Public Service Corporation**
 - Kewaunee 1, nuclear, 503 MW.
QA Auditor. (1990 to 1991)

PROCUREMENT EXPERIENCE

- **HPI - China**
 - Ligang Units 3 and 4, Fossil
 - Dalian Units 3 and 4, Fossil
 - Dandong Units 1 and 2, Fossil
Electrical Project Engineer responsible for specification preparation and bid evaluation in the electrical procurement section. (1995 to 1997)

DESIGN BASIS DOCUMENT

- **Maine Yankee Atomic Power Company**
 - Maine Yankee 1, Nuclear
Electrical Project Engineer responsible for preparation of the 125VDC Electrical Distribution System Design Basis Summary Document. (1997 to Present)

CONFLICT-OF-INTEREST STATEMENT

MILLSTONE - Independent Corrective Action Verification Program (ICAVP)

ANTHONY S. CARUSO
Proposed Consultant

SARGENT & LUNDY
Consultant's Employer

My participation in the Millstone Unit 3 ICAVP [() does (does not)] involve situations or relationships in which I had direct previous involvement with activities at the plant that I will be reviewing and I [() have do not have] conflicting roles that might bias my judgment in relation to my work on the ICAVP. In addition

1. I have not been previously employed by Northeast Nuclear Energy Company (NNECO) or any of its predecessors.
 I have been previously employed by NNECO or some of its predecessors. (State the nature of the employment.)
2. I have not previously provided design or engineering services to NNECO for the subject Millstone unit as a contractor or a subcontractor.
 I have previously provided design or engineering services to NNECO for the subject Millstone unit as a contractor or a subcontractor.
3. I have no other business relations (member of NNECO's Board of Directors, member of an Offsite Review Committee, etc.) with NNECO for the subject Millstone unit that may create the appearance of a conflict of interest.
 I have other business relations with NNECO for the subject Millstone unit that may create the appearance of a conflict of interest.
4. I have not been previously employed by the subject Millstone unit's architect-engineer (AE) (Stone & Webster), the nuclear steam supply system (NSSS) vendor (Westinghouse) or any of their predecessors associated with design or construction of the subject Millstone unit.
 I have been previously employed by the subject Millstone unit's AE (_____), the NSSS vendor (_____), or one or more of their predecessors associated with design or construction of the subject Millstone unit. (State the nature of the employment.)
5. I, and my immediate family, do not own or control financial interests (stocks, bonds, mutual funds, etc.) in NNECO, the subject Millstone unit's AE (STONE & WEBSTER), or the NSSS vendor (WESTINGHOUSE).
 I, or a member of my immediate family, own or control financial interests (stocks, bonds, mutual funds, etc.) in NNECO, the subject Millstone unit's AE (_____), or the NSSS vendor (_____).

ANTHONY S. CARUSO
Proposed Consultant

SARGENT & LUNDY
Consultant's Employer

6. Members of my immediate family are not employed by NNECO, the subject Millstone unit's AE (STONE & WEBSTER), or the NSSS vendor (WESTINGHOUSE) associated with design or construction of the subject Millstone unit.
- Members of my immediate family are employed by NNECO, the subject Millstone unit's AE (_____), or the NSSS vendor (_____) associated with design or construction of the subject Millstone unit. (State the nature of the employment.)
7. My close relatives (aunts, uncles, first cousins) are not employed by NNECO, the subject Millstone unit's AE (STONE & WEBSTER), or the NSSS vendor (WESTINGHOUSE) in a management capacity.
- My close relatives (aunts, uncles, first cousins) are employed by NNECO, the subject Millstone unit's AE (_____), or the NSSS vendor (_____) in a management capacity. (State the nature of the employment.)
8. Have you been promised any additional compensation, reward or anything of value, contingent upon the position you take on any issue being considered by you in connection with the subject Millstone unit ICAVP? If yes, provide a detailed description of the circumstances.
- NO YES. Explain.
9. Do you know of any reason, whether or not inquired about in this questionnaire, that would affect your ability to be completely objective in performing any of the tasks assigned to you in connection with the subject Millstone unit's ICAVP? If yes, provide a detailed description of the circumstances.
- NO YES. Explain.
10. Are you aware of anything that might create a perception that you would not act with objectivity in performing any of the tasks assigned to you in connection with the subject Millstone unit's ICAVP? If yes, provide a detailed description of the circumstances.
- NO Yes. Explain.

I certify that the statements I have made on this form are true, complete, and correct to the best of my knowledge and if the circumstances surrounding the responses change during performance of the ICAVP for the subject Millstone unit, I will inform the NRC of those changes.

Anthony S. Caruso
Signature

June 12, 1997
Date

In the above statements, the term "employed" is construed to mean any form of employment, either direct, as a contractor, or as a subcontractor. The term "immediate family" includes the interviewee's children, stepchildren, spouse, parents, stepparents, mother-in-law, father-in-law, brothers-in-law, sisters-in-law, or any person living with the interviewee.

CONFLICT-OF-INTEREST STATEMENT

MILLSTONE - Independent Corrective Action Verification Program (ICAVP)

Joseph A. Kwan
Proposed Consultant

CRJ'S Eng. & Res.
Consultant's Employer

My participation in the Millstone Unit 3 ICAVP [() does (X) does not] involve situations or relationships in which I had direct previous involvement with activities at the plant that I will be reviewing and I [() have (X) do not have] conflicting roles that might bias my judgment in relation to my work on the ICAVP. In addition

1. (X) I have not been previously employed by Northeast Nuclear Energy Company (NNECO) or any of its predecessors.
 - () I have been previously employed by NNECO or some of its predecessors. (State the nature of the employment.)
2. (X) I have not previously provided design or engineering services to NNECO for the subject Millstone unit as a contractor or a subcontractor.
 - () I have previously provided design or engineering services to NNECO for the subject Millstone unit as a contractor or a subcontractor.
3. (X) I have no other business relations (member of NNECO's Board of Directors, member of an Offsite Review Committee, etc.) with NNECO for the subject Millstone unit that may create the appearance of a conflict of interest.
 - () I have other business relations with NNECO for the subject Millstone unit that may create the appearance of a conflict of interest.
4. (X) I have not been previously employed by the subject Millstone unit's architect-engineer (AE) (STONE & WEBSTER), the nuclear steam supply system (NSSS) vendor (WESTINGHOUSE), or any of their predecessors associated with design or construction of the subject Millstone unit.
 - () I have been previously employed by the subject Millstone unit's AE (_____), the NSSS vendor (_____), or one or more of their predecessors associated with design or construction of the subject Millstone unit. (State the nature of the employment.)
5. () I, and my immediate family, do not own or control financial interests (stocks, bonds, mutual funds, etc.) in NNECO, the subject Millstone unit's AE (_____), or the NSSS vendor (_____).

(X) I, or a member of my immediate family, own or control financial interests (stocks, bonds, mutual funds, etc.) in NNECO, the subject Millstone unit's AE (STONE & WEBSTER), or the NSSS vendor (WESTINGHOUSE).

→ I own mutual funds, but, do not control disposition of individual issues or have knowledge of individual issues.
1 of 2
Enclosure 3
Joseph A. Kwan

