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Docket Number 50-346
License Number NPF-3
Serial Number 1-1383
August 4, 2004

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

Subject: Submittal of Organizational Safety Culture and Safety Conscious Work Environment Independent Assessment Plan for the Davis-Besse Nuclear Power Station

Dear Mr. Caldwell:

The purpose of this letter is to submit the assessment plan and related information for the independent outside assessment of the Davis-Besse Nuclear Power Station (DBNPS) Organizational Safety Culture, including Safety Conscious Work Environment. 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.

In accordance with the Confirmatory Order, the FirstEnergy Nuclear Operating Company (FENOC) is submitting its Assessment Plan, including the identification and qualifications of the assessors, for the area of Organizational Safety Culture, including Safety Conscious Work Environment. This Assessment is scheduled to commence on November 2, 2004, and will last approximately three weeks.

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
DB-1 NRC/NRR Senior Project Manager
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 1-1383 contains no new commitments.	N/A

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Attachment 2

Organizational Safety Culture Assessment Plan

(5 pages to follow)

Organizational Safety Culture Assessment Plan

NUMBER:
2004-0104

ASSESSMENT AREA:

Organizational Safety Culture including Safety Conscious Work Environment

PURPOSE:

The purpose is to provide an independent and comprehensive assessment of the status of the existing Organizational Safety Culture, including the Safety Conscious Work Environment (SCWE), 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 Davis-Besse internal self-assessment activities in this performance area.

SCOPE:

The Independent Assessment Team will evaluate the following areas associated with Organizational Safety Culture, including SCWE, as conducted in the Independent Safety Culture Evaluation of the Davis-Besse Nuclear Power Station in February 2003:

1. Safety is a clearly recognized value in the organization.

- Documentation that describes the importance and role of safety in the operation of the organization exists.
- The value of safety is clearly transmitted and understood by all personnel through multiple mechanisms.
- Decision-making that reflects the value and priority of safety in a timely and focused manner exists.
- The necessary allocation of resources including time, equipment, personnel and money, is being made.

2. Accountability for safety in the organization is clear.

- Roles and responsibilities are clearly defined and understood.
- Compliance with regulations and procedures exists.
- An independent and constructive relationship with the regulatory body exists.
- Delegation of responsibility with appropriate authority exists.
- Management commitment to safety is evident at all levels.

3. Safety is integrated into all activities in the organization.

- Good housekeeping, material condition and working conditions exist.
- The quality of documentation and processes from planning to implementation and review is good.
- Sets of performance indicators are tracked, trended and evaluated.
- Use of self-assessment is evident.
- Integration of all types of safety is evident in the organization.
- Knowledge and thorough understanding of work processes exists.
- Collaboration and teamwork is encouraged, supported and recognized.

4. A safety leadership process exists in the organization.

- Visibility and involvement of management in safety-related activities.
- The involvement and motivation of all staff in the organization is evident.
- A change management process that promotes orderly transition is evident.
- An organizational process for conflict resolutions exists and is effectively used.
- The impact informal leaders have on safety culture is recognized.

5. Safety culture is learning driven in the organization.

- An open reporting culture without blame exists.
- Use of organizational and operating experience, both internal and external to organization, is evident.
- A process to identify problems, develop and implement integrated corrective action plan, exists.
- Continuous development of staff, both professionally and technically, is evident.
- A questioning attitude is evident at all organizational levels.

6. A process for establishing a strong SCWE is in place and is demonstrated to be effective.

- Employees at all levels in the organization understand and perceive the SCWE Program to be effective.
- Responsibility for raising concerns is not avoided because of fear of retaliation.
- The SCWE Program is clearly supported by management.
- An effective process is available for employees to raise their concerns.

In addition to evaluating each of these characteristics, the internal continuous monitoring and evaluation of Safety Culture and Safety Conscious Work Environment programs and processes by the Davis-Besse Nuclear Power Station will be assessed. Focus will be placed on the comprehensiveness of Davis-Besse's internal monitoring programs in terms of addressing each of the identified Safety Culture and Safety Conscious Work Environment characteristics as well as the aggressiveness of Davis-Besse in correcting self-assessment findings associated with internal monitoring as well as any other assessment findings with implications for Safety Culture and Safety Conscious Work Environment.

Organizational Safety Culture Assessment Plan

INDEPENDENT ASSESSMENT TEAM:

- Dr. Sonja B. Haber, Human Performance Analysis, Corp., Team Leader
- Dr. Deborah A. Shurberg, Human Performance Analysis, Corp.
- Retired Rear Admiral, Whitney Hansen, Independent Consultant
- Mr. Aldo Capristo, NMC Fleet Employee Concerns Program Manager, Nuclear Management Company

Biographies attached.

SCHEDULE:

- July 7 through August 4, develop, review and submit assessment plan to NRC.
- August 15, 2004, identify and send selected documentation to team members to begin off-site preparations.
- November 2 through 4, two members of the assessment team will be on-site to administer the Organizational Safety Culture Survey.
- November 7, 2004, assessment team will assemble at the plant for final preparations.
- November 8 through 19, 2004, conduct onsite assessment and provide Davis-Besse with preliminary results prior to leaving site.
- Final team assessment report, including a debriefing, will be provided to Davis-Besse within 30 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:

1. Functional Analysis

The Assessment Team will perform a review of relevant site documentation for the purpose of identifying positions to be interviewed (approximately 10 percent of the employee population) and observations to be conducted, as well as to assist in defining the issues to be assessed in greater detail during the on-site portion of the assessment. Because an independent Safety Culture Assessment was conducted during February 2003, materials requested will be focused on those developed since that assessment. Materials to be requested include:

a. Organizational charts;
b. Identification of important administrative procedures (table of contents);
c. Site performance data related to safety;
d. Past evaluations, including self-assessments, conducted by the site related to safety culture and SCWE;
e. External assessments conducted for safety performance (e.g., inspections, audits);
f. Charters for steering committees and performance improvement initiatives, especially related to safety;
g. Copies of safety policies and programs, including safety culture and SCWE; and
h. Other information that the site may deem useful and relevant for the evaluation.

2. Structured Interviews and Behavioral Anchored Rating Scales

Structured interviews will be conducted with individuals whose positions were identified from the functional analysis. This will include individuals from all organizational levels at the site and corporate offices. The interviews will last no more than one hour and an estimated 10 percent of the employee population will be selected to participate. Employees will be requested to provide their input on the topics being assessed in the evaluation. At the conclusion of the interview, each interviewee will be requested to complete Behavioral Anchored Rating Scales (BARS). BARS are quantitative scales which allow information about some of the same issues discussed during the interview to be collected in another manner. No more than 4 rating scales are administered to any interviewee and the time to complete these scales is included as part of the interview.

3. Behavioral Checklists

The assessment team will utilize behavioral checklists in the observation of site activities. The behavioral checklists will allow a quantitative assessment of the behaviors observed in the course of the observations. Activities to be observed include:

a. Scheduled meetings;
b. Routine activities such as shift changes;
c. Work planning sessions (both scheduled and unscheduled); and
d. Work processes, such as maintenance activities, when applicable.

4. Organizational Safety Culture Survey

The organizational safety culture survey is a paper and pencil survey administered to all employees at the site. Questions concerning issues in the work environment related to management expectations, communication, coordination of work, work group cohesiveness, commitment, job satisfaction, attention to safety, and SCWE issues are included. The surveys will be administered to large group sessions and 100 percent of the employee population will be invited to participate. Results from the survey will be looked at in terms of the overall organization, as well as by groups within the organization (e.g., operations, engineering, maintenance, radiation protection/chemistry).

5. Data Analysis

Information collected through use of the various assessment tools will be analyzed for strengths, observations and areas for improvement terms in the existing Organizational Safety Culture and SCWE. The collected data will be used to assess the absence or presence of six safety culture and SCWE characteristics:

1) Safety is a clearly recognized value in the organization;
2) Accountability for safety in the organization is clear;
3) Safety is integrated into all activities in the organization;
4) A safety leadership process exists in the organization;
5) Safety culture is learning driven in the organization; and
6) A process to establish a strong SCWE is in place and is demonstrated to be effective.

In addition to drawing conclusions related to these characteristics, the data from this assessment will be compared to the data collected from a similar independent assessment conducted in February 2003 and conclusions will be drawn regarding the trends noted between the first assessment and this assessment.

Conclusions will also be made regarding the effectiveness of Davis-Besse self-assessment efforts in this area and the aggressiveness of the facility in addressing findings from both self-assessments and independent assessments conducted with implications for Safety Culture and Safety Conscious Work Environment.

REFERENCES:

NRC Special Inspection – Management and Human Performance Corrective Action Effectiveness – Report No. 50-346/2003012 (DRP)
Safety Culture Evaluation of Davis-Besse Nuclear Power Station, Performance, Safety, and Health Associates, Inc. April 14, 2003
International Atomic Energy Agency, INSAG – 15, Key Practical Issues in Strengthening Safety Culture, Vienna, 2002.
Haber, S. B. and Barriere, M.T. "Development of a regulatory organizational and management review method" Research Report RSP-0060, Canadian Nuclear Safety Commission, Ottawa, Canada
NOBP-LP-2501, Safety Culture Monitoring
NOBP-LP-2502, Safety Culture Assessment
Quarterly Safety Conscious Work Environment Performance Indicators
Safety Conscious Work Environment Surveys
Cycle 14 Operational Improvement Plan

ASSESSMENT PLAN APPROVALS:

Prepared by: _____ Date: July 28, 2004
Sonja B. Haber, Assessment Team Lead

Approved by: _____ Date: 7/30/04
Clark A. Price, Project Manager

Approved by: _____ Date: 8/2/04
Ralph L. Hansen, Executive Sponsor

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Attachment 3

Organizational Safety Culture Assessment Plan
Assessors and Qualifications

(4 pages to follow)

Sonja B. Haber, Ph.D.
President and Senior Consultant
Human Performance Analysis Corporation

- **1995-present: Human Performance Analysis Corporation; President and Senior Consultant** - Designed, developed and implemented methodology to evaluate organization and management influences on safety culture. Methodology has been implemented in 36 different organizations across various industries and in several countries around the world. Team Lead on the Independent Safety Culture Assessment Team at the Davis-Besse Nuclear Power Station conducted in February 2003. Conducted safety culture evaluations for Canadian Nuclear Safety Commission across all of their major licensees. Developed and implemented management and supervisory skills workshops and courses in communication and observational skills. Authored and presented papers in various professional journals and meetings on the topic of safety culture.
- **1998-present: International Atomic Energy Agency; Special Expert** - Participated in multiple international missions to evaluate and assist with safety culture at various types of nuclear facilities including most recently the Paks Power Plant in Hungary.
- **1998-present: Hofstra University; Adjunct Associate Professor, Department of Psychology** - Conducted graduate seminars for students in an Applied and Industrial Psychology Program.
- **1987-1998: Brookhaven National Laboratory - Department of Advanced Technology; Group Leader, Organizational Performance** - Managed 9 professionals and over $35 million in projects which investigated the role of human factors in various nuclear safety programs. Projects were primarily for the U.S. Nuclear Regulator Commission and the U.S. Department of Energy including work on the evaluation of organization and management on safety performance, including the response to accident/emergency situations, field work at U.S. commercial power plants and DOE facilities, and the development of programmatic aspects of training at nuclear plants with Soviet-Designed Reactors.
- **1982-1987: Brookhaven National Laboratory; Associate Scientist** - Involved in experimental design, execution, statistical analyses and evaluation of behavioral data. Promoted to Scientist in 1984. Direct supervision of technical engineers, chemists, and laboratory technicians in interdisciplinary projects.
- **1981-1982: National Institutes of Health; Grant and Contract Administrator** - Programmatic responsibilities included grant and contract administration, report reviews, research initiatives and involvement in the peer review process.
- **1976-1981: Brookhaven National Laboratory; Assistant Scientist** - Pursued behavioral research into the role of psychological traits as markers for the predisposition to the onset of certain types of disease.

Deborah A. Shurberg, Ph.D.
Researcher/Consultant
Human Performance Analysis Corporation

- **1998-present: Human Performance Analysis Corporation; Researcher/Consultant** - Team member on the Independent Safety Culture Assessment Team at the Davis-Besse Nuclear Power Station in February 2003. Participation included conducting interviews, observing work processes, and analysis of data collected from these activities as well as data from a standardized survey.
- Participated in multiple projects to evaluate the influence of safety culture and organization and management factors on the safety performance of normally operating nuclear facilities. Projects involved conducting structured interviews and observations of key managers and supervisors in nuclear facilities that included delivery and analysis of a standardized survey to facility employees. Subsequent analysis of data collected has been used in the initial development of performance indicators for safety culture and organizational effectiveness.
- Primary responsibility for development of course material on basic communication and observational skills for the International Atomic Energy Agency.
- **1988-1998: Brookhaven National Laboratory; Assistant Scientist** - Visited Ukrainian and Russian nuclear power plants as a member of a Training Needs Analysis Team tasked to develop findings to focus training program development efforts. Lead technical expert in the development and delivery of a training program designed to improve management and supervisory skills of managers in the Former Soviet Union.
- Member of a project team tasked to administer and analyze a standardized survey on organizational and safety culture to over 12,000 employees at twelve Department of Energy facilities. Participated in a research project examining the impact of staffing levels on safety performance based on tabletop and walk down analyses of work activities and structured interviews across all organizational levels.
- Technical lead on a project evaluating the influence of safety culture and organization and management factors on the performance of organizations in emergency situations. Conducted structured observations of simulated emergencies and reviewed relevant literature. Developed a model of organizational functioning during emergency situations.

Whitney Hansen
Rear Admiral (retired)
President - Dolphin Enterprises

- **1977-present: Dolphin Enterprises; President** - Consultant to the Nuclear, Defense, Electric Utility Industries, NRC, and DOE. Services include management consulting, nuclear operations, engineering, uranium supply, post Three Mile Island (TMI) nuclear safety initiatives, resource research, business development, Technical Safety Assessments (TSAs), Tiger Teams, and Self Assessment. Supported NRC operational audits, exercises and design reviews on over forty visits to commercial nuclear power plants. In 2002, contributed to a root cause analysis of the failure of the Davis-Besse corrective action program to prevent a major casualty to the reactor vessel head. Following this participated in an analysis of the Davis-Besse safety culture.
- **1977-1982: DUR, Inc.; President** - Acted as an agent for three domestic and two foreign nuclear electric utilities to provide approximately 50 million lbs. of uranium.
- **1970-1977: Exxon Nuclear Company, Inc.; Sales Manager** - Responsible for Exxon Nuclear Product Line Sales to twenty-three domestic nuclear investor-owned and public utilities. Product lines included fabricated nuclear reload fuel for BWR and PWR light water reactors, uranium concentrates, fuel management and engineering field and support services, and NDT and QA services.
- **1969-1970: Hydro Drive Corporation; Vice President, Marketing** - Responsible to the President for the management of all aspects of the marketing program.
- **1967-1969: Lockheed Missiles and Space Company; Project Leader** - Special Programs, R & D Division - Manager of a specialized engineering, manufacturing, and sales organization, supervised system concept studies, detailed design, and quick reaction development of hardware for special classified Ocean Systems programs under contract to the U.S. Navy.
- **1966-1967:General Electric Company, Atomic Power Equipment Division; Proposal Project Engineer** - Prepared responses to customer bid specifications for Boiling Water Reactor central station power plants. Acted in a lead systems engineering capacity, incorporating inputs from technical specialists into responsive proposal documents. Delivered oral presentations to customers on the engineering aspects of the plant.
- **1960-1965: Lockheed Missiles and Space Company** - Advanced in increasingly responsible engineering and management positions which included participation in the design and development of a research submersible, management of space system studies. Hiring and supervising a 25-engineer section which designed digital test control and data acquisition systems for the Reactor-in-Flight nuclear rocket stage.
- **1948-1960: U. S. Navy; Engineer Officer (Gold), U.S. Theodore Roosevelt, SSBN 600 (Polaris nuclear powered submarine)** - Managed and trained a one hundred man department in the operation, maintenance and control of the S-5-W pressurized water reactor plant and associated ship's primary and auxiliary systems. Assistant Engineer Officer, USS SARGO SSN 583 - Managed a ten-man division responsible for the repair and maintenance of the ship's automatic control, auxiliary and life support systems. Other Naval Training, and Diesel submarine and surface ship engineering and operational assignments.

Aldo Capristo
Director of Employee Concerns
Nuclear Management Company

- **2001-present: Nuclear Management Company; Director of Employee Concerns -**

  Responsible for overseeing the independent internal dispute resolution process at eight operational nuclear reactor sites located in four Midwestern states. Formed the Internal Resolution Processes and organized the fleet Employee Concerns Program. Standardized many aspects of operation including a toll free hotline, intranet website, fleet procedures, common advertising, communication protocol, training, budgeting, and a corporate reporting hierarchy including the selection and management of full time managers at each facility.

- **1999-2000: Nuclear Management Company; Nuclear Oversight Manager** - Redirected the focus of the oversight organization from a strict regulatory compliance auditing group with a new focus on organizational effectiveness. Established the site expectations for line organizations to self-assess their own performance and to establish a culture of being the first to find and fix the problem. Integrated all of the sites (fleet program) to create a problem resolution method that helped the sites to use the right program to focus management attention on the problem and find effective solutions.

- **1998-1999: Wisconsin Electric Point Beach Nuclear Plant; Employee Concerns Program Manger** - Began a new Employee Concerns Program for the site including training, establishment of hotlines, posters, brochures, and briefings for all hands.

- **1997-1998; Maine Yankee Atomic Power Company; Employee Concerns Program Manager** - Accepted the responsibility for reinvigorating a Employee Concerns program at a decommissioning nuclear facility. This change management plan included awareness briefings and skills-based training sessions to assist managers and supervisors in their role as Safety Conscious Work Environment (SCWE) facilitators.

- **1996-1997: Maine Yankee Atomic Power Company; Radiation Protection Supervisor/Manager** - Responsible for daily operations Radiation Protection supervision and management at an operating nuclear reactor site. Coordinated and planned daily operational activities and provided direction for maintenance outage support.

- **1994-1996: Maine Yankee Atomic Power Company; Radioactive Waste Shipping Manager** - Responsible for a $1M shipping budget to remove all stored low-level waste at the facility. Coordinated all resources to conduct a Department Of Transporation (DOT) and NRC compliant shipping campaign after a 2-year hiatus of storage.

- **1990-1994: Long Island Lighting Company Shoreham Nuclear Pit; Radioactive Waste Disposal Coordinator**- Coordinated all radioactive material removal at a decommissioning facility. Waste shipments included partially spent nuclear fuel over a tri-modal transport path of land, sea and rail. Coordinated all emergency response activities with U.S. Coast Guard, NRC, DOT New York, New Jersey and Pennsylvania regulators.

- **1981-1990: United States Nuclear Navy; Engineering Laboratory Technician** - Various responsibilities included daily operational water chemistry and radiological controls. Served as a nuclear power school fundamentals instructor, earning the award of "Master Training Specialist".