

RAS 13418

USEC INC. EXHIBIT #1

USEC INC. WITNESS STATEMENTS OF PROFESSIONAL QUALIFICATIONS

U.S. NUCLEAR REGULATORY COMMISSION
In the Matter of USEC Inc. (American Centrifuge Plant)
Docket No. 70-7004-ML Official Exhibit No. USEC 1
OFFERED by: (Applicant) Licensee Intervenor _____
NRC Staff _____ Other _____
IDENTIFIED on 3/13/07 Witness/Panel _____
Action Taken: ADMITTED REJECTED WITHDRAWN
Reporter/Clark: ew

DOCKETED
USNRC

March 27, 2007 (11:30am)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

Docket No. 70-7004-ML

TEMPLATE=SECY-028

SECY-02
USEC EXHIBIT 1

**STATEMENT OF PROFESSIONAL QUALIFICATIONS
OF
JOHN C. BARPOULIS**

PROFESSIONAL EXPERIENCE

John C. Barpoulis is senior vice president and chief financial officer for USEC Inc. He oversees the financial activities of the corporation, including accounting, treasury, financial and strategic planning, tax, procurement and investor relations.

Prior to joining USEC, Mr. Barpoulis served as vice president and treasurer of National Energy & Gas Transmission, Inc. (NEGT), formerly a subsidiary of PG&E Corporation. Prior to that, he served in financial positions of increasing responsibility at U.S. Generating Company, an NEGТ subsidiary, and served as a consultant with Berner, Lanphier and Associates, which provided analytical services to the U.S. Department of Defense.

EDUCATION

Mr. Barpoulis received a bachelor of arts degree in physics from Vassar College and a bachelor of engineering degree in mechanical engineering from the Thayer School of Engineering at Dartmouth College. He also earned a master of business administration degree from the Tuck School of Business at Dartmouth College.

**STATEMENT OF PROFESSIONAL QUALIFICATIONS
OF
ROBERT M. BERNERO**

PROFESSIONAL EXPERIENCE

More than 47 years of experience in nuclear technology. The last twelve years have been as a nuclear safety consultant serving USEC, other fuel cycle applicants and licensees, the Department of Energy, and the Swedish Department of the Environment. During this period served for six years on the Board on Radioactive Waste Management and the Nuclear and Radiation Studies Board at the U.S. National Academy of Sciences.

1996-Present: Consultant to USEC as a member of the Plant Performance Review Committee, outside oversight for operations at the gaseous diffusion enrichment plants leased from DOE and operated by USEC.

1989-1995: USNRC – Director, Office of Nuclear Material Safety and Safeguards, with responsibility for licensing and regulatory oversight of:

- * Uranium recovery and nuclear fuel enrichment, fabrication and development
- * Industrial, medical, academic and commercial uses of radioisotopes
- * Security and safeguards measures
- * Transportation and storage of radioactive materials, including spent nuclear fuel
- * High-level and low-level radioactive waste management and disposal

1987-1989: USNRC – Deputy Director, Office of Nuclear Material Safety and Safeguards.

1984-1987: USNRC – Division Director, Office of Nuclear Reactor Regulation, responsible for boiling-water reactor licensing, reactor systems safety and radiological safety.

1980-1984: USNRC – Division Director, Office of Research, responsible for development and trial applications of probabilistic risk analysis for severe accidents in nuclear reactors, and for probabilistic performance assessment of radioactive waste disposal.

1979: USNRC – Assistant manager of NRC-sponsored investigation of the Three Mile Island Unit 2 accident in 1979, the Special Inquiry or Rogovin Report.

1977-1979: USNRC – Assistant Director for Material Safety Standards, addressing development of decommissioning standards and regulations and other radioactive material standards.

1976-1977: USNRC – Chief, Fuel Reprocessing Branch, NMSS, responsible for licensing review of nuclear fuel reprocessing plants.

1972-1977: USAEC/USNRC – Licensing Project Manager for light water reactors (Arkansas One, Unit 1; Three Mile Island, Unit 1, and others), the Clinch River Breeder Reactor, and the Barnwell Nuclear Fuel Plant.

1966-1972: General Electric Co., Space Division, project study engineer and engineering section manager for development of isotope-powered and reactor-powered spacecraft.

1963-1966: General Electric Co., Knolls Atomic Power Laboratory, field engineer for the construction and test of two nuclear reactors in USS Truxtun.

1959-1963: General Electric Co., Knolls Atomic Power Laboratory, fluid systems design engineer and radiochemist for the D1G prototype and the USS Bainbridge.

EDUCATION

St. Mary of the Lake University, BA, Philosophy, 1952

University of Illinois, BS, Chemical Engineering, 1959

Rensselaer Polytechnic Institute, MS, Chemical Engineering, 1961

**STATEMENT OF PROFESSIONAL QUALIFICATIONS
OF
JASON E. BOLLING**

PROFESSIONAL EXPERIENCE

Senior NCS Engineer, USEC, March 2006 to Present

Implemented and maintained the NCS program for the American Centrifuge Lead Cascade. Supported the licensing efforts for the American Centrifuge Plant in the area of NCS.

NCS Manager, USEC Inc., December 2002 to March 2006

Managed the NCS department at the Portsmouth Gaseous Diffusion Plant through the shutdown of the diffusion enrichment process and development of the American Centrifuge project. Established the scope and framework of the NCS program for the ACP. Served on the ISA review team for the ACP as the NCS subject matter expert.

NCS Engineer, USEC Inc., October 1997 to December 2002

Performed NCS evaluations for a variety of fissile material operations at PORTS including the UF₆ cylinder heating autoclaves, UF₆ cylinder handling and transportation, UF₆ cylinder cleaning, and various waste handling operations. Provided peer technical review of NCS evaluations, analyses, and reactivity calculations once Senior NCS Engineer qualifications were obtained in 2001.

System Engineer, USEC Inc., October 1991 to October 1997

System engineer assigned to UF₆ cylinder heating autoclaves for feed, sample, and transfer of liquid UF₆.

EDUCATION

University of Michigan, BSE in Nuclear Engineering, 1991

Ohio University, MSE in Engineering Management, 2006

PROFESSIONAL MEMBERSHIPS AND CERTIFICATIONS

Member-American Nuclear Society.

**STATEMENT OF PROFESSIONAL QUALIFICATIONS
OF
GREGORY S. CORZINE**

PROFESSIONAL EXPERIENCE

Over 18 years of experience in the nuclear power and nuclear fuel cycle industries. Eight years have been in the nuclear fuel cycle/uranium enrichment segment addressing matters in the areas of nuclear safety and systems engineering at the Lead Cascade, ACP, and Portsmouth Gaseous Diffusion Plant. Ten years have been in nuclear power addressing matters in the areas of nuclear safety, license renewal, quality assurance, fire protection, maintenance, systems engineering, startup and testing, construction, and project management. Power experience includes support for Palo Verde 2, Calvert Cliffs Units 1 & 2, Robinson, Brunswick Units 1 & 2, and Shearon Harris, McGuire 1, Arkansas Nuclear One Unit 1, Ginna, Bellefonte Units 1 & 2, North Anna Units 1 & 2, Surry Units 1 & 2

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|----------------|--|
| 6/03 – Present | USEC Inc., Piketon, OH – Nuclear Safety Manager responsible for developing and maintaining the nuclear safety basis of the American Centrifuge Lead Cascade Facility and the American Centrifuge Plant. |
| 7/01 – 6/03 | Horizon PCS – A Sprint PCS Affiliate, Chillicothe, OH – Senior Radio Frequency (RF) Engineer providing technical and administrative support for a Code Division Multiple Access (CDMA) based wireless telecommunications system consisting of more than 1400 base stations in IN, KY, MD, MI, NJ, NY, OH, PA, TN, VA, and WV. |
| 6/99 – 7/01 | United States Enrichment Corporation, Piketon, OH – Senior Staff Engineer providing technical support for Nuclear Safety Analysis. Performing safety analysis reviews of gaseous diffusion process systems. |
| 10/97 – 6/99 | Lockheed Martin Utility Services, Inc., Piketon, OH – Senior Staff Engineer providing technical support for: Nuclear Safety Analysis, Nuclear Criticality Safety, and Systems Engineering. Performing safety analysis reviews, NCS walk downs, NCS implementations, system evaluations, system tracking and trending analyses, and system operability reviews. |
| 10/96 – 10/97 | SE Technologies, Inc., Lusby, MD – Staff Engineer providing technical support for: Appendix R analyses, Maintenance Rule program and development of License Renewal application. |
| 9/96 – 10/96 | Sciencetech Inc., Rockville, MD – Staff Engineer providing technical support for: implementation of an exemption tracking database and development of a commitment tracking database. |
| 1993 – 8/96 | Grove Engineering, a Framatome Technologies Company (BWNT), Rockville, MD – QA Manager overseeing implementation of the Grove QA Program. Staff Engineer providing technical and/or project management support for: nuclear power plant configuration management data base creation; development of design basis documents; development of current licensing basis programs; development of system descriptions; development |

of LR programs, Appendix R evaluations, software QA, software training, shielding analyses, radiological assessments, and system modeling.

- 1989 – 1993 Grove Engineering, Inc., Rockville, MD – Staff Engineer providing technical and/or project management support for: nuclear power plant configuration management data base creation; development of design basis documents; development of current licensing basis programs; development of system descriptions; development of ITLR programs, FSAR/TS upgrades, Appendix R evaluations, software QA, software training, shielding analyses, radiological assessments.
- 1980 – 1982 Tennessee Valley Authority, Bellefonte Nuclear Power Plant, Hollywood, AL – Systems Engineer and Quality Control Inspector providing field engineering support and Quality Assurance for the construction, installation, testing of nuclear steam supply and balance of plant systems.

EDUCATION

University of Cincinnati, MS, Nuclear Engineering, 1988.

University of Cincinnati, BS, Nuclear Engineering, 1985.

PROFESSIONAL MEMBERSHIPS AND CERTIFICATIONS

Member-American Nuclear Society

**STATEMENT OF PROFESSIONAL QUALIFICATIONS
OF
GREG FOUT**

PROFESSIONAL EXPERIENCE

April 1, 1980 to present: Goodyear Atomic, Martin Marietta, Lockheed Martin Energy Systems, United States Enrichment Corporation, and USEC Inc.

- Currently function as Advanced Technology, Environmental, Safety, and Health Coordinator (June 2003 to present) and previously as Portsmouth Gaseous Diffusion Plant (GDP), Group Manager, Waste Management/Environmental Compliance/Industrial Safety from 1997 through December 2005.
- Have 27 years of experience in uranium enrichment activities at the GDP and Advanced Technology, including 14 years managing ESH compliance professionals.
- Responsibilities include managing day-to-day compliance activities, development of the Environmental Report for the ACP and Chapters 6.0 and 9.0 of the License Application for the ACP and member of the ISA Summary Team.
- Environmental team lead on the team that completed the American Centrifuge Lead Cascade Facility Environmental Report and Chapters 6.0 and 9.0 of the Lead Cascade Facility Application.
- Implemented ESH programs and procedures for the Lead Cascade and ACP facilities.
- Vast experience interfacing with the Federal and State EPA and implementation of requirements of Title 40 of the *Code of Federal Regulations*.
- Experience encompasses Instrument Maintenance, Environmental Compliance, Waste Management, and Industrial Safety and the development of OSHA based training programs which included conducting an OSHA 24-hour 29 CFR 1910.120 Hazardous Materials Training Course throughout the United States.
 - Energy Systems Evaluation Team Member, corporate level audit team member conducting audits of Lockheed Martin facilities throughout the United States.
 - Lead auditor, conducting due diligent audits of Treatment, Storage and Disposal Facilities, (TSDF).
- Served as a United States delegate to the IAEA, International Environmental/Safety, Atomic Workers, Conduct-of-Operations Development Conference in Vienna, Austria 1989.

EDUCATION

1983 -1985 ICS Center for Degree Studies, Electronics Engineering; Associate degree

1990 – 1996 California Coast University, Management; B.S. degree

**STATEMENT OF PROFESSIONAL QUALIFICATIONS
OF
SANDRA L. FOUT**

PROFESSIONAL EXPERIENCE

- 8/05 – Present USEC Inc., Piketon, OH – Manage the engineering functions of design, construction, project management, and nuclear safety for the American Centrifuge Program for design, construction, and operation of the Lead Cascade Demonstration project and the commercial plant.
- 6/01 – 8/05 United States Enrichment Corporation Piketon, OH – Plant Manager, responsible for all operations, maintenance, and support to plant operations. Plant operated 24/7 with approximately 900 personnel. Operations provided cold standby and deposit removal services to the Department of Energy, maintained plant infrastructure, and processed uranium material potentially contaminated with Tc through autoclaves for cleanup. The plant experienced two years of downsizing and reorganization to achieve an ever-changing mission.
- 11/00 – 5/01 United States Enrichment Corporation, Piketon, OH – Enrichment Plant Manager. During enrichment operations, responsible for all operations, maintenance, and support of a uranium enrichment plant. The plant operated 24/7 with a 1300 person staff and a budget of approximately \$90 million. The plant produced approximately half of the corporation's enriched uranium for use as commercial power plant fuel. Responsible for shipping all of the corporation's product to customers, both domestic and foreign. This facility is regulated by the Nuclear Regulatory Commission. During this time, the plant reached record shipments while operating at its highest historical efficiency with its best industrial safety record.
- 4/98 – 11/00 United States Enrichment Corporation, Piketon, OH – Operations Manager. Managed cascade enrichment operations, feed, transfer and shipping operations, chemical decontamination and uranium recovery operations, utility operations, the plant central control facility, and power operations. Operations ran 24/7 with 550 personnel and a budget of \$32 million. During this time, the plant achieved the highest production efficiency in the plant's more than 40 years of operation while delivering 100% on-time, in-spec product. Operations transitioned to a new work week management process that increased maintenance efficiency and schedule adherence to greater than 90 percent. The corrective action backlog was reduced from 400 overdue commitments to 0 and the critical equipment on-stream availability was increased from 71 percent to 90 percent in one year. Labor relations with the Union improved dramatically during this time through a relation-by-objective program. Improvements recognized nationally through Federal Mediation (FMC).

- 4/95 – 4/98 Lockheed Martin Corporation, Piketon, OH – Production Support Manager. Supported the operating plant in the areas of analytical laboratory, technical services, radiation protection, waste management and quality control with a staff of 250 and an annual budget of \$10M. The organization developed critical in-situ repair techniques, prevented unionization of the non-exempt technical work force, and improved the line relationship with the radiation protection personnel. The laboratory was certified by the State of Utah, AIHA, and the State of Ohio and provides environmental, IH, and product quality analyses, waste characterization, and outside services including world-renown non-destruction assay analyses.
- 1/94 – 4/95 Lockheed Martin Corporation, Piketon, OH – Environmental and Waste Management Division Manager. Managed an approximately 100-person organization responsible for maintaining compliance at the enrichment plant, including compliance with RCRA, air, water, waste, and waste shipping. Supported readiness to NRC regulatory transition by creating a Quality of Operations document and implementing an NRC Coaches Program, pairing up experienced consultants with operating staff to address Nuclear Regulatory Commission (NRC) regulatory issues prior to transition to NRC regulation.
- 12/92–1/94 Martin Marietta Corporation, Piketon, OH – *Deputy Division Manager, Technical Operations*. Managed the daily operations of the Engineering Division, with deputy responsibility for engineering, laboratory, and computing functions. Supervised a typical staff of 120 engineers and technicians in the performance of project management, design engineering, and configuration management. Provided strategic leadership to prioritize plant engineering support and reduce the backlog of engineering service orders. Implemented the reorganization of Engineering to provide better day-to-day support to the primary customers of Operations and Maintenance.
- 1/91 – 12/92 Martin Marietta Corporation, Piketon, OH – Design Engineering Management – Chemical Engineering Department Manager & Design Engineering Superintendent. Supervised 55 engineers and drafters responsible for completing civil, chemical, and mechanical designs. During a labor conflict, personally lead the engineering design effort through construction and turnover to create a RCRA permitted hazardous waste storage facility at the site.
- 2/90 – 6/91 Martin Marietta Corporation, Piketon, OH – Department Head, Project Management. Supervised a staff of 11 project management personnel who managed all site projects from feasibility studies through design and construction. Responsible for all monthly reporting on scope, cost, and schedule and the annual review of all projects, by the Department of Energy.

- 12/87-2/90 Goodyear Atomic Corporation, Piketon, OH – Project Management. Project manager for multiple engineering projects, up to \$50 million in budget, such as an upgrade to six major site cooling towers to remove asbestos hazards and increase cooling efficiency. Managed cost, scope and budget for projects through design, construction, and turnover for the Gaseous Diffusion Plant, under contract to the Department of Energy. Managed A-E design efforts.
- 6/79 -10/87 Goodyear Atomic Corporation, Piketon, OH – Scientist. Performed failure analysis on a wide range of components, including failed process piping, expansion joints, water lines, valves, and corroded components. Conducted material studies in a metallurgical laboratory, such as, the analysis of the effect of weld composition on the corrosion rate of process piping, the effects of weld repairs and component service life, corrosion studies on new materials for construction, and improved material for the plant steam plant environment.

EDUCATION

B.S. Metallurgical and Materials Engineering, University of Pittsburgh, 1979

M.S. Environmental, Safety and Health Management, University of Findlay, December 2003

**STATEMENT OF PROFESSIONAL QUALIFICATIONS
OF
DONALD J. HATCHER**

PROFESSIONAL EXPERIENCE

October, 1995 – present, USEC Inc, Director of Risk Management.

Responsible for the areas of insurance, risk management, surety bonds and management of external brokerage and insurer relations for USEC Inc, United States Enrichment Corporation and NAC International, Inc.

EDUCATION

Bachelors of Science, Business Administration, Bethel College, McKenzie, TN
Associate – Risk Management, Insurance Institute of America, Malvern, PA

PROFESSIONAL MEMBERSHIPS AND CERTIFICATIONS

Member-Risk and Insurance Management Society

**STATEMENT OF PROFESSIONAL QUALIFICATIONS
OF
VICTOR N. LOPIANO**

PROFESSIONAL EXPERIENCE

USEC Inc.	1996-Present
Vice President, American Centrifuge	December 2005-Present
<ul style="list-style-type: none"> - Responsible for deployment and commercial operations of USEC's next-generation uranium enrichment technology, the American Centrifuge - Oversees manufacturing of centrifuge machines by USEC's suppliers. 	
Director, Project, Corporate Development	2000-2005
Director, AVLIS Enrichment Plant Project& Livermore Operations	1996-2000
ABB Inc.	1985-1996
Sr. Vice President, Operations, ABB Environmental Systems	1994-1996
Vice President, ABB Project Services	1992-1994
Director/Vice President, Engineering & Facility Operations, ABB Resource Recovery Systems (ABB RRS)	1989-1992
Project Engineering Manager/Project Manager, ABB RRS	1985-1989
<ul style="list-style-type: none"> - Introduced new technology for municipal waste processing & combustion - Provided project/engineering/construction management services to ABB Business Units 	
Burns and Roe, Inc	1974-1985
Mechanical/Nuclear Engineer/Supervisor	
<ul style="list-style-type: none"> - Held positions of increasing responsibility in the engineering, procurement and construction of several power plants and cogeneration facilities 	

EDUCATION

Manhattan College	BE- Electrical Engineering
Rensselaer Polytechnic Institute	ME- Nuclear Engineering

PROFESSIONAL MEMBERSHIPS AND CERTIFICATIONS

Sr. Reactor Operator License (RPI research reactor)
Professional Engineer License (NY)
Member, American Society of Mechanical Engineers (ASME)

**STATEMENT OF PROFESSIONAL QUALIFICATIONS
OF
PETER J. MINER**

PROFESSIONAL EXPERIENCE

Project Manager for the development of the American Centrifuge Plant License Application, Integrated Safety Analysis (ISA), Environmental Report, and supporting documents. Provided coordination and oversight of development activities for technical subjects, drafted inputs to various functional areas, and reviewed and edited the documents. Coordinated requests for additional information with the U.S. Nuclear Regulatory Commission (NRC).

USEC Inc., September 1998 – Present

November 2003-Present – Director, Regulatory and Quality Assurance

- Provide programmatic oversight and direction for nuclear safety, environmental compliance, and quality assurance activities at USEC's centrifuge facilities in Piketon, Ohio and Oak Ridge, Tennessee
- Project Manager for the development of the American Centrifuge Plant License Application, ISA, Environmental Report, and supporting documents
- Provide the principal point of contact with NRC for all licensing-related matters

February 2002-November 2003 – Regulatory Manager

- Project Manager for the development of the Lead Cascade Demonstration Facility License Application, ISA, Environmental Report, and supporting documents
 - First License Application to utilize NUREG-1520, *Standard Review Plan for the Review of a License Application for a Fuel Cycle Facility - Final Report* for format and content
- Managed the implementation of the Lead Cascade Demonstration Facility safeguards and security; environmental, safety, and health; radiation protection; corrective action; and regulatory affairs programs, including staffing key positions
- Obtained all necessary environmental permits to support operation of the Lead Cascade Demonstration Facility
- Chairperson of Facility Safety Review Committee and member of the Lead Cascade Demonstration Facility ISA Team

September 1998-February 2002 – Manager, Nuclear Regulatory Affairs

- Provided the primary interface between the corporation and NRC relating to regulatory compliance and uranium enrichment facility safety at the Portsmouth Gaseous Diffusion Plant
- Managed the various aspects of this interface, including communication, inspection coordination, event reporting, commitment management, and certificate of compliance maintenance and renewal

Northeast Utilities, August 1984 – September 1998

September 1997-September 1998 – Manager, Regulatory Compliance

- Scoped and prioritized the resolution of outstanding regulatory issues at Millstone Unit 1
- Managed day-to-day regulatory compliance and licensing activities, such as Final Safety Analysis Report maintenance, emergent issue resolution, responses to NRC violations, preparation of Licensee Event Reports, and communications with the NRC

April 1997-September 1997 – Manager, Restart

- Developed and implemented the Operational Readiness Plan for restart of Millstone Unit 1 from an extended refueling outage
- Responsible for management of the closure process for NRC Open Items, tracking and reporting progress towards restart milestones, monitoring performance indicators, and expediting completion of high priority activities

February 1996-April 1997 – Supervisor, Operational Standards/Special Projects

- Duties included conducting assessments and developing solutions for generic Millstone Station operational issues and participating in the development of strategic planning initiatives

December 1993-February 1996 – Supervisor, Nuclear Licensing

- Planned, scheduled, and supervised the activities of regulatory engineers at Millstone Units 1 and 2
- Responsible for ensuring high quality day-to-day nuclear licensing services

July 1989-December 1993 – Senior Licensing Engineer, Nuclear Licensing

- Coordinated submittals to the NRC and developed applications for amendments to the Operating License and Technical Specifications for Millstone Unit 1

August 1984-July 1989 – Computer Scientist, Process Computer Engineering

- Designed, developed, integrated, and tested real-time, sensor-based nuclear power plant computer systems for Millstone Units 2 and 3
- System engineer for process computer systems

Stone & Webster Engineering Corp., May 1984 - July 1984

Construction Coordinator

- Field engineer responsible for coordinating construction activities at Millstone Unit 3 for assigned nuclear safety systems to meet schedule completion dates

Fischbach-Boulos-Manzi NH, June 1981 - May 1984

December 1982-May 1984 – Lead Systems Engineer

- Coordinated and prioritized completion of field work and expedited resolution of engineering problems for nuclear safety-related and balance of plant electrical systems during construction of Seabrook Station

June 1981-December 1982 – Cost and Scheduling Engineer

- Performed electrical estimating and cost engineering activities during construction of Seabrook Station

Mercury Company of Norwood, Inc., August 1980 - June 1981

Cost Analyst

- Performed cost engineering activities in support of electrical and instrumentation & control nuclear backfit and capital improvement projects at Millstone Unit 1

EDUCATION

M.S. Environmental, Safety & Health Management, University of Findlay, Findlay, Ohio

B. S. Mathematics, University of Massachusetts, Amherst, Massachusetts

PROFESSIONAL MEMBERSHIPS AND CERTIFICATIONS

Member-American Nuclear Society

Member-American Society for Quality

**STATEMENT OF PROFESSIONAL QUALIFICATIONS
OF
GENE PYZIK**

PROFESSIONAL EXPERIENCE

USEC, INC., PIKETON, OH

2003 to Present

Nuclear Safety Consultant

Contractor group lead in the performance of the Integrated Safety Analysis to support the preparation and maintenance of the license application for the proposed American Centrifuge Plant, in accordance with the requirements of 10 CFR 70, NUREG-1513, and NUREG-1520.

**PORTSMOUTH SITE (DOE), PIKETON, OH/PADUCAH SITE (DOE), PADUCAH, KY
2001 to 2003**

Nuclear Safety Consultant

Assisted in the following tasks: (1) Upgrading the Authorization Basis to comply with the requirements of 10 CFR 830, insuring compatibility between the DOE and USEC Authorization Bases, (2) Preparation of Formal Unreviewed Safety Question Determinations and associated documentation to support proposed facility changes in accordance with DOE Guide 424.1-1, (3) Authorization Basis support related to facility de-leasing from USEC to DOE, (4) Development of data required for preparation of an Emergency Plan in accordance with DOE Order 151.1A.

UNITED STATES ENRICHMENT CORPORATION, PIKETON, OH

1995 to 2001

**Nuclear Safety Analysis, Configuration Management, Procurement Engineering Manager
1997 to 2001**

Section supervisor responsible for: (1) Formal Unreviewed Safety Question Determinations and associated documentation to support proposed facility changes via the 10 CFR 76.68 process, (2) Configuration Management Program, (3) Safety System boundary definitions, (4) Equipment procurement specifications.

- Nuclear Safety representative on the Plant Operations Review Committee;
- Chairperson of Nuclear Criticality Safety Subcommittee of the Plant Operations Review Committee;
- Systems Engineering representative on the Emergency Operations Center Cadre;
- Performed an evaluation of the implemented Nuclear Criticality Safety Program against all applicable ANSI Standards and identified required changes to the Nuclear Criticality Safety Program

Lead Operations Senior Instructional Technologist, Training Department 1995 to 1997

Developed new training requirements for transition from DOE oversight to NRC regulation. He developed training modules utilizing the Systems Approach to Training (SAT) process required for NRC certification. Advised Operations and Training personnel on the philosophical changes required to progress from DOE oversight to NRC regulation. Oversaw junior instructional technologists.

- Recommended changes to Safety Analysis Report and new Technical Safety Requirements.

- Performed formal classroom instruction required for the implementation of new Technical Safety Requirements.

PORTSMOUTH SITE (DOE), Piketon, OH

1994 to 1995

Senior Engineer, Waste Management Division

Assisted in the development of the Waste Management Program. Identified and developed administrative and technical procedures necessary for tracking, treatment, storage, shipment and disposal of low-level radioactive, hazardous, and mixed waste, based on DOE Order 5820.2A, RCRA, and TSCA requirements.

- Performed formal classroom instruction on new operations and maintenance procedures.
- Acted as Project Manager for a PCB decontamination project.
- Forty-hour HAZWOPER qualified.

SAVANNAH RIVER SITE (DOE), AIKEN, SC

1994

Waste Management Operations Engineer

Developed, revised, validated, walked-down and evaluated Waste Management Operating Procedures required for restart of waste evaporators. Researched Safety Analysis Reports and DOE Orders for incorporation into procedural requirements.

CALVERT CLIFFS NUCLEAR POWER PLANT, LUSBY, MD

1992 to 1993

Configuration Management Engineer

Developed methodology for control and updating of Design Drawings and Technical Databases required by plant modifications and maintenance activities. Assisted in development of a program designed to establish and control the accuracy of the Master Equipment List, and to increase the usability and interrelationship of Design Drawings and Technical Databases. Advised Engineering management of Nuclear Regulatory Commission configuration management expectations.

ROCKY FLATS PLANT (DOE), GOLDEN, CO

1990 to 1992

Procedure Project Supervisor

Supervisor of groups responsible for development of all Operations HVAC, Radiological, and Alarm Response Procedures required for site-wide resumption of plutonium activities.

- Developed and maintained Administrative Procedures required for control of the procedure process.
- Developed Procedure Writer's Guide.
- Procedure Organization representative to the Operations Review Committee.

DAVIS-BESSE NUCLEAR POWER STATION, OAK HARBOR, OH

1982 to 1990

Engineering Representative to Operations Procedure Task Force

1990

Engineering representative on a one-time Operations Task Force to review, rewrite, and process required changes to all System Operating, Abnormal Operating, Surveillance, Emergency, and Alarm Response Procedures prior to restart following a refueling outage.

Configuration Management Project Engineer

1987 - 1990

Data Engineering Group Supervisor

Organized and supervised a new organization developed to assume all Configuration Management responsibilities.

Configuration Control Group Supervisor

Supervised groups responsible for developing methodology for updating the following Configuration Management products from their respective origin dates to current plant configuration: Equipment Database, Equipment-to-Drawing and Equipment-to-Vendor Manual Cross-Reference Databases, and Vendor Manuals. Supervised greater than fifty contract personnel.

Project Manager of Design Drawing Review Project

Supervised a project performed off-site by a private contractor to review all design drawings, and develop a cross-reference database of equipment to drawings.

Systems Engineer - HVAC Systems

1985 to 1987

Responsible for all HVAC Systems, including in-place filter testing of charcoal adsorbers and HEPA filters. Responsible System Engineer for the Emergency Ventilation System during The System Review and Test Program (a special eighteen-month retrofit and restart program following a site reactor accident).

Maintenance Engineer - HVAC Systems, Vacuum System and Main Condenser

1983 to 1985

Prepared Maintenance Work Orders and supervised field maintenance activities. He developed, reviewed and revised maintenance and surveillance procedures. Performed planning and scheduling activities.

Modifications Coordinator

1983

Supervised modification activities and coordinated closeout of modification packages for a hanger replacement project.

Technical Support Group Engineer

1982 to 1983

Developed methodology and performed testing to determine the efficiency and track the performance of plant heat exchangers.

EDUCATION

Bachelor of Science, Mechanical Engineering, University of Toledo, 1983

Master of Science, Environmental Management, University of Findlay, 1998

**STATEMENT OF PROFESSIONAL QUALIFICATIONS
OF
PHILIP G. SEWELL**

PROFESSIONAL EXPERIENCE

Philip G. (Phil) Sewell is senior vice president of American Centrifuge and Russian HEU at USEC Inc. He is responsible for the American Centrifuge program, implementation of the Russian HEU (highly enriched uranium) contract, international trade issues and specific strategies related to identifying new business opportunities. Mr. Sewell joined USEC in 1993. Before assuming his current title, he was vice president for corporate development and international trade and security. Additional responsibilities that Mr. Sewell has had at USEC include management of R&D programs for the American Centrifuge and SILEX laser technologies.

For five years prior to joining USEC, Mr. Sewell served as deputy assistant secretary at the Department of Energy (DOE) where he was responsible for the overall management of the uranium enrichment activities. He maintained a market leadership position for the business in a highly competitive no-growth market, completed the successful demonstration of a promising laser enrichment process and negotiated a \$12 billion purchase of low enriched uranium derived from highly enriched uranium from dismantled Russian nuclear weapons.

From 1975 to 1987, Mr. Sewell held positions of increasing responsibility in DOE's uranium enrichment program. He started as a program analyst/production engineer in 1975. He then became director of marketing in 1978 and director of the Office of Marketing, Strategic Planning and Technology Development in 1986. Prior to joining DOE, Mr. Sewell spent seven years as a manager/engineer with the Department of Defense where he performed analyses of rocket propulsion technology, developed and implemented plans to market engineering services to other government agencies and NATO countries, and served as a naval technical representative to NATO.

EDUCATION

Mr. Sewell earned a master of science degree in business administration from George Washington University and a bachelor of science degree in aerospace engineering from the University of Maryland.

**STATEMENT OF PROFESSIONAL QUALIFICATIONS
OF
MARK D. SMITH**

PROFESSIONAL EXPERIENCE

February 1996-Present
Manager, Nuclear Licensing, USEC Inc

As Manager, Nuclear Licensing, Mr. Smith is involved with decommissioning planning activities for the Paducah and Portsmouth Gaseous Diffusion Plants (GDPs). In this capacity, Mr. Smith prepares the United States Enrichment Corporation's annual Decommissioning Funding Plan for the GDPs and coordinates with USEC's financial organization to ensure that the appropriate financial assurance mechanisms are established to cover the GDPs decontamination and decommissioning liabilities.

Mr. Smith was also the USEC headquarters Project Manager for the Chapter 3 Update and Safety Analysis Report Upgrade Projects. These projects involved developing, and obtaining NRC approval, of complete revisions to the facility and process descriptions and accident analysis contained in USEC's Applications for certification of the Gaseous Diffusion Plants.

Mr. Smith was also involved in the development of USEC's initial Application for NRC certification of the GDPs.

June 1981-February 1996
Mechanical/Nuclear Supervisor, Bechtel Power Corporation

In this capacity, Mr. Smith supervised home office and field mechanical design and regulatory activities associated with various nuclear power projects, to include steam generator replacements and numerous modifications to operating nuclear plants. These activities included preparation and approval of drawings, calculations, design change packages, 10 CFR50.59 evaluations and Final Safety Analysis Report updates.

EDUCATION

Bachelor of Science, Nuclear Engineering, Iowa State University, Ames, IA
Master of Engineering, Engineering Science, Pennsylvania State University, Harrisburg, PA

PROFESSIONAL MEMBERSHIPS AND CERTIFICATIONS

Registered Professional Engineer, Commonwealth of Pennsylvania

**STATEMENT OF PROFESSIONAL QUALIFICATIONS
OF
TIMOTHY D. TAULBEE**

PROFESSIONAL EXPERIENCE

March 1999 – Present: Site Radiation Protection Manager (RPM) for the Portsmouth Gaseous Diffusion Plant. Responsible for the implementation, maintenance, and effectiveness of the radiation protection/industrial hygiene programs. Responsible for maintaining USEC's radiation protection and industrial hygiene programs in compliance with federal and state regulations. Additionally responsible to support environmental compliance, waste management and laboratory operation in maintaining regulatory compliance. Other duties include oversight of radiological training programs including use of radiological program support equipment. Responsible for controlling radiation exposure of personnel, determining the radiological status of the facility, determining the need for issuing and closing radiation work permits, and conducting the radiological occupational monitoring program. The Radiation Protection Manager has direct access to the General Manager and the Enrichment Plant Manager concerning radiation protection matters. Collateral duties include; Chairman of the site's ALARA committee, primary member of Plant Operational Review Committee (advisory committee to General Manager), Qualified Reviewer (responsible for maintenance of regulatory compliance documents), USQ reviewer qualified, Emergency Operations Center (EOC) and Contamination Control Committee chairman (joint company/union steering committee), Qualified Safety Review Committee Member (ACP). Written papers on Beryllium Abatement and Control programs for the DOE/GDP facilities. Developed USEC respirator facility training program. Developed USEC's Industrial Hygiene technician training program (2006).

April 1998 – March 1999: Group Manager, Health Physics. Primary responsibilities include; oversight of the radiation protection program at the PORTS GDP, administration of vendor and service contracts, operational budget, organization and group self assessments, internal audit and assessment program and supervisory management over section managers, professionals, staff members. During this time, successfully completed four NRC Compliance Plan initiatives including the PORTS GDP site radiological characterization.

1995-1998: Health Physics Operations Manager. Oversight of all Health Physics field operations and section managers. Other duties included Emergency Field Monitoring Team Coordinator, Health Physics Training Manager, and Health Physics Oral Board Chairman. Provided support and oversight for DOE to NRC transition and initiated PORTS site radiological characterization project in order to meet NRC Compliance Plan.

1993-1994: Health Physics Section Manager. Supervisor over shift operations, general enrichment plant operations, and enrichment process support. Health Physics Technician Training Qualification Board member, Site Trainer/Evaluator, Qualified Technical Reviewer, Qualified Confined Space Supervisor, HAZWOPER 1910.120 Certified, HAZMAT Emergency Technician Certified, Certified DOE Emergency Responder and EOC Cadre member.

1990-1992: Health Physics Technician assigned to uranium enrichment process support, autoclave transfer, feed and withdrawal, shift work, decontamination facility support, and as an acting shift supervisor. Assisted in development and implementation of current Radiological

Work Permit (RWP) Program, installed first fixed exit monitoring equipment. Assisted in development of the first radiation worker training and qualification program at PORTS, and formed HP Emergency Response Team. Assisted in writing the first Conduct of Operations guidelines for the Health Physics Department. Assisted in the development of the Health Physics Technician Training Program.

1989-1990: Health Physics Surveyor assigned to uranium enrichment process support and shift coverage. Duties included all aspects of operational Health Physics.

EDUCATION

B.S. Environmental Safety & Health, Shawnee State University, Portsmouth, Ohio

A. S. Mortuary Science, Cincinnati College of Mortuary Science, Cincinnati, Ohio

Post Graduate Studies (no degree), Environmental Engineering, Ohio University, Athens Ohio

PROFESSIONAL MEMBERSHIPS AND CERTIFICATIONS

Member- Health Physics Society

National Registry of Radiation Protection Technologists

Recognition of Academic Excellence, Shawnee State University

**STATEMENT OF PROFESSIONAL QUALIFICATIONS
OF
JAMES F. THOMPSON**

PROFESSIONAL EXPERIENCE

USEC Inc. — 2004 to present

Currently serve as the Radiation Protection Manager and the Chemical Safety Manager for the Lead Cascade as part of the Lead Cascade Regulatory Organization.

PORTSMOUTH GASEOUS DIFFUSION PLANT — 1991 - 2003

Provide support to all aspects of the radiation protection program. Duties included Internal and External Dosimetry Program Manager, revamped the Health Physics Self Assessment Program, acting RPM, and performed the Annual program reviews. Perform cross-discipline safety reviews as member of the Plant Operations Review Committee. Member of the Emergency Operations Cadre.

HELGESON SCIENTIFIC SERVICES — 1974 - 1990

RSO and Corporate Health Physicist supporting in-vivo body counting sales and service for both national and foreign clients.

NEWPORT NEWS SHIPBUILDING AND DRYDOCK COMPANY — 1968 - 1969

Radiological Control Lead Monitor during overhaul and refueling of nuclear powered naval vessels.

EDUCATION

1998 MS in Environmental Management from the University of Findlay.

1973 BS in Radiation and Nuclear Technology from Oklahoma State University.

1968 AS in Radiation and Nuclear Technology from Oklahoma State University.

PROFESSIONAL MEMBERSHIPS AND CERTIFICATIONS

Maintain Credentials as a Registered Radiation Protection Technologist through the National Registry of Radiation Protection Technologists.

Passed Part I of American Board of Health Physics Certification Exam and took Part II in July 1998.

Maintain qualifications as Certified Quality Auditor and Certified Quality Engineer through the American Society for Quality

**STATEMENT OF PROFESSIONAL QUALIFICATIONS
OF
DANIEL A. TOWNE**

PROFESSIONAL EXPERIENCE

Process Engineer with over 31 years experience in the practical application of uranium separation technology, uranium chemistry, and process optimization theory for the operation of an enrichment plant and its support systems.

USEC Inc., 2003 to Present

Lead Engineer – Advanced Technology, Operations Analysis, (2003 to Present)

- Provide technical and engineering support to the Lead Cascade Project and the design of the Commercial Centrifuge Plant.
- Co-chair the team preparing the ISA for the Commercial Centrifuge Plant Application.
- Derivative classifier and acted as interim Corporate Classification Officer for Centrifuge related issues.
- “Subject Matter Expert” for cascade operation and cascade chemistry issues.

United States Enrichment Corporation, Piketon, Ohio

1975 to 2003

Engineer, Lead, Systems Engineering (2002 to 2003)

- Provided technical and engineering support to Operations help resolve operational problems, implement changes to transition gaseous diffusion plant to standby operation and complete equipment cleanup by chemical treatment.
- Assisted in preparation of Lead Cascade ISA.
- “Subject Matter Expert” for cascade operation and cascade chemistry issues, including chemical removal of uranium deposits and processing of deposit removal gases using cold traps and the Purge cascade.

Engineer, Lead, Customer Service & Process Scheduling (1995 to 2002)

- Provided technical and engineering support to help resolve operational problems, implement changes to improve plant operation and address the technical aspects of regulatory issues that arise.
- Performed “what-if” studies for management to provide information for making informed decisions on proposed changes to cascade and plant operation and assist in preparing proposals for future work.
- “Subject Matter Expert” for cascade operation and cascade chemistry issues, including chemical removal of uranium deposits and processing of deposit removal gases using cold traps and the Purge cascade.
- Provided technical support to place gaseous diffusion plant in standby and initiate cleanup of equipment.

Department Manager, Process Engineering (1992 to 1995)

- Managed ten engineers responsible for technical and engineering support to cascade and auxiliary plant operations, including cascade optimization, operational and safety issues and equipment performance.
- Ensured departmental work was technically accurate, provided practical solutions and met customer needs.
- Provided feedback to personnel on performance and opportunities to gain experience and improve skills.
- Prepared and managed department budget, and continued to computerize monitoring and reporting functions.

Engineer Specialist, Production Engineering (1986 to 1992)

- Provided technical and engineering support to Operations division in particular monitoring of day-to-day cascade operations to identify and correct problems that impacted production.
- Provided technical support for Purge cascade operation and cell servicing and chemical treatment.
- Monitored VHE and LEU production and addressed problems with maintaining product in specification.
- Provided interface with support groups such as NMC&A, Nuclear Safety to address cascade issues.
- After closure of GCEP, oversaw changes to computerize departmental activities in order to compensate for the reduction in force that occurred at that time.

Section Head, Cascade Engineering Section of Production Engineering (1983 to 1986)

- Managed five engineers who were responsible for monitoring day-to-day operations and providing technical support to cascade operations, feed facilities, withdrawal stations, cell servicing facilities and the purge cascade.
- Reviewed section work to ensure technical accuracy, fulfillment of customer needs and proper classification.
- Provided feedback to personnel on performance and opportunities to gain experience and improve skills.
- Was responsible for coordinating the investigation of a major inventory discrepancy and implementation of corrective actions.

Engineer/Engineer, Staff, Process Engineering (1975 to 1983)

- Provided technical support for fabrication, installation and operation of new converters during Cascade Improvement P program (CIP).
- Evaluated converter quality control test results and provided technical support for Stabilization Stand operation.
- Acted as Responsible Deviation Authority to resolve barrier and converter production problems.
- Monitored CIP converter cascade performance to ensure installed quality and adjust converter specifications.
- Created computer database to track CIP equipment information and a computer program to monitor stage permeability using process data.

EDUCATION

Bachelor of Science in Chemical Engineering, Case Institute of Technology (CWRU), 1971
Master of Science degree in Chemical Engineering, Ohio University, 1982