

**TEXAS UTILITIES GENERATING COMPANY**  
SKYWAY TOWER • 400 NORTH OLIVE STREET, L.B. 81 • DALLAS, TEXAS 75201

**BILLY R. CLEMENTS**  
VICE PRESIDENT, NUCLEAR OPERATIONS

June 8, 1984

TNRC-84016

Mr. Darrell G. Eisenhut  
Director, Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

SUBJECT: Comanche Peak S.E.S. Shift Staffing

Dear Mr. Eisenhut:

The information provided in this transmittal is in response to your May 25, 1984 letter to Mr. M. D. Spence.

The summary of operating shift experience for the Comanche Peak S.E.S. transmitted to Mr. Denton on March 8, 1984 is still correct. The subject personnel have acquired additional preoperational testing experience at Comanche Peak during the last three months.

Texas Utilities Generating Company (TUGCO) committed to the use of experienced shift advisors at Comanche Peak in November, 1981. This commitment is detailed in the USNRC Safety Evaluation Report (SER), Supplement No. 1, Section 13.1.2.1 and License Condition No. 6.

Five of the six shift advisors have been on site working with operating personnel both on and off shift since late 1982. A sixth shift advisor was recently added to the group to provide additional manpower in order to satisfy training requirements. Although the sixth individual has not had the same experience at Comanche Peak as have the other shift advisors, the process of integration into the operating staff has already begun and will proceed on an accelerated basis. He will not assume on-shift duties and responsibilities until the plant familiarization, shift integration and shift advisor training processes are adequately completed.

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Attachment 1 is information regarding Shift Advisors in response to the request included in Enclosure 2 of your May 25, 1984 letter.

Please contact R. B. Seidel, Comanche Peak Operations Superintendent, at (817) 897-4856 for additional information or clarification.

Sincerely,

*Billy R. Clement*

BRC:kh

Attachments

c: R. Cooley  
U. S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 1000  
Arlington, TX 76011

L. P. Crocker  
Division of Human Factors Safety  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

T. A. Ippolito  
Project Director,  
Comanche Peak Project  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

J. S. Marshall, Dallas (w/o attach.)

ARMS

The following is in response to the May 25, 1984 information request. For clarity, each request is repeated, followed by the TUGCO response.

1. A resume of each shift advisor which highlights his previous experience.

Response: Resumes are forwarded in Attachment 2.

2. A copy of the procedure which describes the duties and authority of the shift advisors and the working relationships between the advisors and the operating shift personnel.

Response: Attachment 3 is a copy of Procedure ODA-102, "Shift Complement Responsibilities and Authorities". Section 4.2.6 delineates the responsibilities and authorities of the shift advisors.

3. A copy of the training program presented to the shift advisors to assure they have adequate knowledge of plant specific matters to properly perform their duties.

Response: Attachment 4 is a copy of Procedure TRA-299, "Shift Advisor Training and Qualifications". In addition to the training program, described in this procedure, five of the six Comanche Peak shift advisors have been onsite working with the operating personnel for approximately eighteen months. They were integrated into the operating staff in late 1982 in order to allow time for plant familiarization, input into operational philosophies and review of procedures and programs. These shift advisors have experienced preoperational and hot functional testing as members of the shift operating crews and have become knowledgeable of plant specific design, layout, procedures and administration and are well prepared to perform their duties.

4. A copy of the written examination administered to the shift advisors and the results of the examination, if available.

Response: Attachment 5 includes copies of the three written examinations administered to the shift advisors and the results of the examinations.

5. A description of and copies of notes regarding the oral examination administered to the shift advisors.

Response: No oral examinations have been administered to the shift advisors. Plant specific technical knowledge is determined by written examinations as described in the response to request number 4. An oral review will be conducted as described in Procedure TRA-299, "Shift Advisor Training and Qualifications", Section 4.3.2 (see response to request number 3).

6. A description of the training program presented to the operating shift crews to assure that they understand the role of the shift advisors.

Response: Shift advisors at Comanche Peak have been integrated into operating shift crews over the past eighteen months. The position and role of shift advisor was in place on shift during hot functional testing and during much of the preoperational testing. The operating shift crews, therefore, have an excellent understanding of the role of the shift advisor. In order to further enhance this understanding, the role of the shift advisors will be included as a topic in the Comanche Peak Licensed Operator Requalification Training Program. This training will include the responsibilities and duties of the shift advisors, their qualification requirements and the shift advisor training program. Trainees are subject to examination on these topics. This training will be conducted during requalification cycle 84-5, beginning on June 18, 1984 and concluding on July 27, 1984.

7. A statement regarding the medical qualification requirements for the shift advisors.

Response: TUGCO has no specific medical qualification requirements for shift advisors. By observation of them performing their duties, we have concluded that they have no medical problems impeding that performance. The shift advisors are not licensed on the Comanche Peak plant and, therefore, can perform no licensed duties. In the event that a shift advisor becomes incapacitated while on shift, a qualified replacement will be called in. The same procedure applies to all required shift crew members.

8. A description of the procedures that will be used to evaluate the performance of the shift advisors during plant start-up.

Response: The Operations Supervisor is responsible for evaluating the shift advisors. This evaluation is based on performance and is described in Procedure TRA-299, "Shift Advisor Training and Qualifications" (Attachment 4).

Attachment 2

Shift Advisor Resume's

Douglas E. Burton  
David R. Campbell  
Hubert C. Crumney  
Frank D. Pauli  
Lawrence J. Ryan  
Steve Stevens



POSITION: Operations Shift Consultant

NAME: Douglas E. Burton

EDUCATION: High School Graduate

EXPERIENCE: Seventeen years experience in fossil and nuclear power plant startup and operation.

November 1982 to Present

Senior Startup Consultant, Nuclear Startup Services, Inc.

Assigned to Comanche Peak Steam Electric Station as an Operations Shift Consultant responsible for providing technical support and advice to the Shift Supervisor and Control Room Staff on startup and operational activities of the plant. Additional responsibilities include the preparation, review and revision of department administrative and operation procedures.

May 1981 - August 1982

Callaway Nuclear Plant - Jebcon, Inc.

Operations Consultant - Assigned to the Nuclear Operations Dept. with responsibilities of preparation of the Normal, and Off-Normal operating procedures. Also included in the procedural task was preparation of all the local and control room alarm responses associated with the system procedure. Further responsibilities included advising the Superintendent of Operations and his assistants, when required.

May 1980 - May 1981

Traveled in North and South America.

July 1979 - May 1980

Mechanical Startup Engineer - Volt Tech. Service

At Angra I, Angra dos Ries, R.J., Brazil, assisted in writing hot functional procedures and pre-operational test procedures. Worked with nuclear and secondary systems.

October 1974 - July 1979

Operating Engineer at the Donald C. Cook Nuclear Plant, Bridgman, Michigan

Supervised operating shift during initial fuel loadings, refuelings, start-ups, low power physics testing, and power operations to 100% power on both units. Supervised and trained licensed and non-licensed on-shift personnel in plant components and operation. Senior Reactor Operator in charge of core alterations for initial refueling of unit. Attended simulator training one week each with Westinghouse, Zion, Illinois, and Combustion Engineering, Windsor Lock, Connecticut.

July 1970 - September 1974

Unit Supervisor at Donald C. Cook Nuclear Plant

In charge of unit one control room. Assisted in the preparation of preoperational test, normal operating, abnormal operating, emergency, and surveillance procedures. Manipulated controls during hot functional testing. Instructed license replacement candidates in mathematics and physics. Original nuclear training with Westinghouse at Waltz Mill and Saxton, Pennsylvania.

February 1967 - July 1970

Auxiliary Equipment Operator at Central Operating Company,  
Phillip Sporn Plant

Maintained equipment outside the control room in a coal fired electric plant.

April 1965 - January 1967

U.S. Army Basic Training at Fort Knox, Kentucky and advanced training at Fort Sam Houston, Texas. Medical corpsman in the 44th Surgical Hospital Mobile Army, Korea. Duties included medical aid, night "nurse" and ward master. Obtained the rank of Specialist Five.

TRAINING:

Westinghouse Reactor Training - Waltz Mill & Saxton, Pa 1970-71  
Normal Requalification Training, D.C. Cook 1974-1979  
Simulator Training, Westinghouse, Zion, Ill., 1975  
Simulator Training, Combustion Eng., Windsor Lock, Conn., 1977  
Annual Fire Training, D.C. Cook  
On site training at D.C. Cook by Westinghouse 1971-73

LICENSE AND CERTIFICATION:

Westinghouse Certification 1970  
Senior RO License - SOP-2236 1974

POSITION: Operations Shift Consultant

NAME: David R. Campbell

EDUCATION: High School Graduate

EXPERIENCE: Thirty Two years experience in fossil and nuclear plant startup and operation.

November 1982 to Present

Chief Startup Consultant, Nuclear Startup Services, Inc.  
Assigned to Comanche Peak Steam Electric Station as an Operations Shift Consultant responsible for providing technical support and advice to the Shift Supervisor and Control Room Staff on startup and operational activities of the plant. Additional responsibilities include the preparation, review and revision of department administrative and operating procedures.

October 1980 to November 1982

Operations Supervisor - Indiana and Michigan Electric Co.  
Responsible to the Operations Superintendent and assisted in supervision of all operating department personnel at D.C. Cook Nuclear Plant, coordinating the operation of all nuclear plant equipment in the Operations department, assisting in the formulation of policies and procedures related thereto, and coordinating the work of the Operations Department with other plant departments, Indiana and Michigan Electric, and American Electric Power Service Corporation's System Operations Department.

1972 to 1980

Operation Shift Supervisor, Indiana and Michigan Electric Co.  
Responsible for the supervision of all operating shift personnel and activities at D.C. Cook Nuclear Plant, a twin unit Westinghouse PWR including:

- Initial flushing following construction
- Hot Functional Testing
- Initial Criticality
- Nine Core burnups and subsequent refuelings.

1970 to 1972

Reactor Operating Engineer, Indiana and Michigan Electric Co.  
Responsible for providing technical support during the construction phase of D.C. Cook Nuclear Plant, Unit 1, a 1050 MW Westinghouse PWR.

1952 to 1972

Unit Foreman, American Electric Power Co.  
Responsible for the startup and operation of six fossil fueled units at the Clifty Creek Power Plant.



TRAINING:

1970-71 Nuclear Training at Westinghouse Waltz Mill Site,  
Pa., Certified Saxton Nuclear Plant, Saxton, Pa.

1971-73 On-site training at D.C. Cook Plant by Westinghouse

1974 Simulator training Zion, Ill.

1976 Simulator training with C.E. at Conn.

1977 Simulator training with C.E. at Conn.

1978 Simulator training with Zion, Ill.

Lesson learned training (TMI), Core mitigation,  
various other training sessions resulting from TMI

1981 TMI training on simulator at Zion, Ill.

1982 Continuous training and exams in Requalification  
Training Program

LICENSES AND CERTIFICATION:

Certified Saxton Nuclear Plant - 1970  
Senior Reactor Operators License No. SOP-2253, 1974

POSITION: Operations Shift Consultant

NAME: Hubert C. Crummey

EDUCATION: High School Graduate

EXPERIENCE: Eighteen years experience in nuclear power plant startup and operation.

November 1982 to Present

Senior Engineer, Interfacts Inc.

Assigned to Comanche Peak Steam Electric Station as an Operations Shift Consultant responsible for providing technical support and advice to the Shift Supervisor and Control Room Staff on startup and operational activities of the plant. Additional responsibilities include the preparation, review and revision of department administrative and operating procedures.

1980 to 1982

Field Supervisory Engineer, Quadrex Corporation

Assigned to rewrite and update emergency operating procedures for Prairie Island Nuclear Generating Station. Rewrote and updated control room annunciator response procedures for Prairie Island. While assigned to Grand Gulf Nuclear Station, wrote instrument calibration procedures for environmental monitoring equipment in accordance with technical specifications. Previously involved with development of an extended life plant refurbishment program for overseas utility.

1973 to 1980

Reactor Shift Supervisor, Virginia Electric & Power Co.

Supervised operation and maintenance of Surry Units 1 and 2. Developed the start-up matrix for Surry Unit 1 after an extended outage for piping support modifications. Rewrote and updated procedures reflecting post-TMI changes. Supervised preoperational and operational testing of Surry Unit 2 after steam generator replacement and major systems modifications, including addition of in-line condensate polishing system and changeout of condenser tubing. As Assistant Control Room Operator for Surry Units 1 and 2, conducted refuelings, performed reactor start-ups, developed and reviewed containment leak rate test procedures, and provided operational interface during acceptance of the Surry nuclear simulator.

Technician, Georgia Power Co.

Conducted preoperational testing and acceptance of electrical and mechanical systems for Hatch Nuclear Power Station.

1965 to 1973

Electronics Technician, U.S. Navy

Qualified on all engineering stations for Polaris submarines. Performed as instructor for SIW prototype, Idaho Falls, Idaho. Operated and maintained electronic systems at Puget Sound Naval Communications Station. Supervised the reactor controls division and maintained and operated the reactor plant systems for SIW prototype and U.S.S. Nathan Hale.

TRAINING:

State of Virginia Fire Fighting School, Ashland, Virginia  
Westinghouse Nuclear Training, Zion, Illinois  
Reactor Operator School and Senior Reactor Training, Surry  
Power Station, Surry, Virginia

U.S. Navy:

- Nuclear Prototype, Idaho Falls, Idaho
- Nuclear Power School, Mare Island, California
- Electronics Technician School, Great Lakes, Illinois
- Transistor Theory School, Pearl Harbor, Hawaii

LICENSE AND CERTIFICATION:

Reactor Operators License 1975  
Senior Reactor Operators License No. SOP-3544

POSITION: Operations Shift Consultant  
NAME: Frank D. Pauli  
EDUCATION: High School Graduate Plus One Year Junior College  
EXPERIENCE: Fourteen years Commercial Nuclear Experience.

May 1984 to Present

Senior Engineer, Interfacts, Inc.

Assigned to Comanche Peak Steam Electric Station as an Operations Shift Consultant responsible for providing technical support and advice to the Shift Supervisor and Control Room Staff on startup and operational activities of the plant. Additional responsibilities include the preparation, review and revision of department administrative and operating procedures.

August 1983 - May 1984

Shift Supervisor, Waterford III

Supervised Plant Operations including the Cold Hydro, Hot Functional and Pre-Operational Testing in preparation for initial fuel load. Received Cold License Training in preparation for NRC examination. In addition, was responsible for redesign and implementation of a Control Modification that included new operators consoles (3), a totally new Shift Supervisor's office and administrative area, new computer terminals and all new communications facilities.

May 1982 - August 1983

Senior Supervisory Engineer, Quaderex Corporation

Consultant Shift Supervisor responsible for Shift Operations and testing implementation.

1976 - May 1981

Shift Engineer, SRO, Commonwealth Edison, Zion 1 and 2

Responsible for all plant operations, Zion 1 and 2 (3250MW<sub>e</sub> each) Commercial Operation. In addition, functioned as Relief Operations Superintendent for Units I, II, Radwaste and Fuel Handling. This covered a period of approximately nine (9) months.

1973 - 1976

Shift Foreman, SRO, Zion 1 and 2

Second in command for all plant operations.

1972 - 1973

Reactor Operator, RO, Zion 1 and 2

(Hot License Unit 1, Cold License Unit 2). Performed first criticality Units 1 and 2, first dilution to criticality Unit 2 and initial synchronization to grid for both units. In addition, performed day-to-day normal shift functions.

1972 - 1973

Equipment Operator, Zion 1 and 2

Responsible for Turbine, Generator and Auxiliaries and all High Voltage Switching.

1971 - 1972

Equipment Attendant, Zion 1 and 2

Responsible for inplant equipment in support of Shift Operations.

1970 - 1971

Equipment Attendant, Quad Cities 1 and 2, Commonwealth Edison  
Company

Responsible for inplant equipment in support of Shift Operations.

Prior to 1970

Non-related to Commercial Nuclear Power.

TRAINING:

Westinghouse Nuclear Training Center Phases I, II and III

Reactor Operator, Zion, Unit I (Hot License), 1973

Reactor Operator, Zion, Unit II (Cold License), 1973

Senior Reactor Operators, Zion Units I and II, 1973



POSITION: Operations Shift Consultant  
NAME: Lawrence J. Ryan  
EDUCATION: High School Graduate  
EXPERIENCE: 21 years experience in Nuclear Power Plant Startup and Operation

November 1982 to Present

Senior Engineer, Westinghouse NSID

Assigned to Comanche Peak Steam Electric Station as an Operations Shift Consultant responsible for providing technical support and advice to the Shift Supervisor and Control Room Staff on startup and operational activities of the plant. Additional responsibilities include the preparation, review and revision of department administrative and operating procedures.

1982

Westinghouse Instructor

Teach Reactor Theory and Nuclear Power Plant Operations at J.M. Farley, Comanche Peak, and Millstone III sites.

1973 to 1981

Chief Nuclear Operator, Nuclear Operator, Assistant Nuclear Operator

Operator at Crystal River Nuclear Plant during construction and startup to commercial operations.

1972 to 1973

Equipment Attendant

Operator at Zion Nuclear Plant during construction and startup to commercial operations.

1971 to 1972

Equipment Attendant

Operator at Quad Cities Nuclear Plant During construction and initial fuel load.

1970

Journeyman Welder

All position stick and wire feed.

1962 to 1970

U.S. Navy

MMI(SS) Qualified on submarines, qualified navy diver, qualified nuclear welder, qualified mechanical operator on navy nuclear power plants.

TRAINING:

Navy Machinist Mate "A" School - Study of steam plant technology, including aux. equipment and main propulsion.

Navy Submarine School - Study of electrical, mechanical pneumatic and hydraulic systems on submarines.

Navy Nuclear Power School - Nuclear Power Plant Theory and Technology.

Navy Welding School - Study of metallurgy, welding techniques and Certification by x-ray for carbon steel and stainless steel pipes in all positions of welding.

Navy Diving School - Study of physics and diving techniques and Certification to 130 ft. in scuba, 60 ft. in deep sea diving rig.

Commercial BWR Technology - Study of Systems and Theory of Operations at Quad Cities Nuclear Plant.

Commercial PWR Technology - Study of Systems and Theory of Operations of a Westinghouse Plant at Zion Nuclear Plant.

Commercial PWR Technology - Study of Systems and Theory of a B&W OTSG Plant, Hot License Training, Pool Reactor Training, Simulator Training and holder of a RO-4494 and SRO-3774 License at Crystal River Nuclear Plant.

Commercial PWR Technology - SRO Certification on a Westinghouse "SNUPPS" Unit and certified Step II Instructor with Westinghouse's Nuclear Training Division.

#### LICENSES AND CERTIFICATIONS:

Reactor Operator License No. OP-4494

Senior Reactor Operator License No. SOP-3774

Senior Reactor Operator Certification - Westinghouse

POSITION: Operations Shift Consultant

NAME: Steve Stevens

EDUCATION: High School Graduate  
A.A. degree in Business

EXPERIENCE: Eighteen years experience in Nuclear Power Plant startup and operation.

November 1982 to Present

Senior Engineer, Interfacts, Inc.

Assigned to Comanche Peak Steam Electric Station as an Operations Shift Consultant responsible for providing technical support and advice to the Shift Supervisor and Control Room Staff on startup and operational activities of the plant. Additional responsibilities include the preparation, review and revision of department administrative and operating procedures.

March 1979 to November 1982

Operations Coordinator, Virginia Electric Power Co.

Responsible to the Superintendent of Operations for the Surry Generating Station. Served as the alternate to the Operations Superintendent for all duties of that position in his absence. Served as overall Refueling Coordinator for the last six refuelings of Units I and II. Currently licensed as a Senior Reactor Operator on both Units I and II.

January 1977 to March 1979

Shift Supervisor, Virginia Electric Power Co.

Responsibility of directing day to day operations of operating shift. Supervised the activities of up to seven plant operators. Coordinated shift activities of all plant departments.

May 1974 to January 1977

Assistant Shift Supervisor, Virginia Electric Power Co.

Directed the day to day activities of plant operations under the direction of the shift supervisor. While serving in the capacity of shift supervisor, was responsible for correctly identifying a steam generator tube rupture accident and bringing the plant to a safe shutdown condition. Obtained SRO License on Unit I and II in July, 1974. Participated in ten refuelings on Surry Units I and II.

January 1973 to May 1974

Control Room Operator, Virginia Electric Power Co.

Responsible for operation of plant equipment, performing startup and shutdown and other reactivity changes, directed the activities of auxiliary operators on shift. As a control room operator, participated in refueling operations.

October 1971 to January 1973

Assistant Control Room Operator, Virginia Electric Power Co.  
Responsible for operation of various plant equipment.

October 1965 to October 1971

U.S. Navy - Machinist Mate

Served on various nuclear powered submarines.

TRAINING:

Reactor Operator and Senior Reactor Operator training,  
Surry Units 1 & 2  
Requalification Training  
Navy Nuclear Power School  
Navy Machanist Mate School

LICENSES AND CERTIFICATION:

Reactor Operator License  
Senior Reactor Operator License No. SOP-2216

Attachment 3

ODA-102

Shift Complement Responsibilities and Authorities