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U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
RESPONSE TO NRC REQUEST FOR ADDITIONAL INFORMATION
CONCERNING RADIATION PROTECTION ORGANIZATION

REF: Letter from C. I. Grimes to W. G. Counsil dated March 10, 1988, "Request for Additional Information Concerning Radiation Protection Organization"

Gentlemen:

The following is our response to the referenced request for additional information about the Radiation Protection Organization (specifically, the Radiation Protection Manager (RPM) position). This response was originally scheduled for mailing March 24, 1988; however, Mr. R. D. Walker of TU Electric contacted Mr. J. H. Wilson of the Office of Special Projects and requested and received an extension to May 14, 1988.

The attachment to this letter details the incumbent RPM's education and experience. Below is an evaluation of those qualifications based on Regulatory Guide 1.8, "Personnel Selection and Training guidance."

The following recommendations concerning RPM qualifications were paraphrased from the regulatory position of Regulatory Guide 1.8:

1) Have experience in applied radiation protection dealing with radiation problems and programs.

2) Be familiar with design features and operations that affect the potential for exposures of persons to radiation.

3) Be technically competent to establish radiation protection programs and have the supervisory capability to implement the radiation protection program.

4) Have a bachelor's degree or equivalent in a science or engineering subject; some formal training in radiation protection is recommended.

5) Five (5) years of professional experience is recommended.

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As shown in the attachment, the incumbent RPM has worked in the nuclear power industry since 1981. This experience was primarily in the radiochemistry area until March, 1986, when the incumbent was assigned as the RPM. The nature of the incumbent's experience, as Counting Room Coordinator, and later as Chemistry Supervisor, illustrates the incumbent's knowledge of basic radiation protection programs and philosophies. For example, as the Counting Room Coordinator, the incumbent demonstrated knowledge of positive contamination control and radioactive material handling and disposal techniques. As a Chemistry Supervisor responsible for effluent monitoring, the incumbent demonstrated knowledge of dose assessment and evaluation techniques.

This type of experience demonstrates the incumbent's administrative and technical abilities to deal with problems and implement programs. The additional training, listed in the attachment, illustrates the incumbent's technical and working knowledge, and understanding of plant operations and design features.

Prior to being employed in the nuclear power industry, the incumbent received a bachelor's degrees in Biology and a master's degree in Oceanography. Within the scope of each curriculum, the incumbent received formal training in radiation protection (as discussed in the attachment).

Since 1986, the incumbent has acquired two (2) years of professional experience as the RPM. These two years as RPM plus the one year credited by the master's degree plus the five years of previous experience equate to a total of eight (8) years of professional nuclear power plant experience. Therefore, the qualifications of the incumbent RPM meet the criteria stated in Regulatory Guide 1.8.

In addition, to expand further the incumbent's familiarity and operating experience with current industry practices, the RPM will participate as an assistant RPM at an operating plant during a refueling outage for a minimum of four weeks and during operation above 20% for a minimum of two weeks. These activities will be completed prior to Unit 1 fuel load at CPSES.

Very truly yours,

W. G. Counsil

W. G. Counsil

By: _____
D. R. Woodlan
Docket Licensing Manager

GLB/grr
Attachments

c - Mr. R. D. Martin, Region IV
Resident Inspectors, CPSES (3)

QUALIFICATIONS OF THE INCUMBENT RPM

EDUCATION:

1981 M. S. Chemical Oceanography, Florida Institute of Technology (FIT) includes:

- o Nuclear Waste Management (3 credit hours) - Comprehensive study of nuclear waste generation, processing methodology, disposal techniques and long term management.
- o Radiological Health (3 credit hours) - Advanced health physics theory, biological effects of ionizing radiation and accident assessment.
- o Primary Productivity Study using C-14 (1 year in thesis research) - Qualified under the FIT Radiation Safety Officer to handle radioactive material and trained in accordance with FIT radiation worker program.

These graduate courses provided advanced formal training in radiation protection necessary to handle and use radioactive material at FIT. These courses, along with the undergraduate courses itemized above, were accepted as credentials necessary to conduct research under the direction of the Radiation Safety Officer.

1978 B. S. Biology, University of Notre Dame includes:

- o Nuclear Physics (3 credit hours) - Fundamentals of atomic physics, radioactivity, reactor theory and health physics.
- o Medical Physics I (3 credit hours) - Fundamentals of health physics, basics of the interaction of ionizing radiation with matter, radiation protection applications, and biological effects.
- o Medical Physics II (3 credit hours) - Advanced concepts in health physics, biological effects and medical applications.

The above course work is considered part of the curriculum available to biology majors with a special interest in health physics.

TRAINING:

The RPM has received the following formal training in radiation protection and related fields:

- Radiochemistry Theory (40 hours).
- Emergency Planning Training as an Onsite Radiological Assessment Advisor, Offsite Monitoring Teams Director and a Radiation Protection Coordinator (140 hours).
- Nuclear Power Plant Effluent Management Training - Radiological Effluent Technical Specifications, Offsite Dose Calculation Manual (40 hours).
- Post Accident Sampling Training (80 hours).
- PWR Systems Training (40 hours).
- 10CFR61 Workshops conducted by EPRI directed toward radioactive waste form criteria, analytical techniques and classification methodology for radioactive waste disposal (30 hours).
- Beta Dosimetry Workshop, providing technical instruction as well as industry experience with beta dosimetry (16 hours).
- Mitigating Core Damage Training providing methodology and knowledge to assess core damage from a radiation protection perspective (16 hours).
- Management Training consisting of project management, basic supervisory skills, personnel development and appraisal, stress management and general management skills (80 hours).

The training itemized above has provided the RPM with a broad spectrum of knowledge ranging from radioactive waste disposal to beta dosimetry. In addition to this training, the RPM is an active participant in the Health Physics Society and the Edison Electric Institute Health Physics Committee.

EXPERIENCE:

1986 - Present TU Electric - Comanche Peak Steam Electric Station

Radiation Protection Manager - Responsible for the Radiation Protection Program

- o Administration
- o ALARA
- o Surveillance and Control
- o Respiratory Protection
- o Instrument Maintenance and Calibration
- o Radioactive Waste Management
- o Personnel Dosimetry
- o Bioassay/Whole Body Counting
- o R.P. Counting Room
- o Radioactive Effluents
- o Environmental Monitoring
- o Access Control
- o Radioactive Material Control
- o Digital Radiation Monitoring System
- o Emergency response team position of Radiation Protection Coordinator

The RPM reports to the Manager, Technical Support and as a member of the Station Operations Review Committee (SORC), has direct access to the Manager, Plant Operations for radiation protection matters. In this role, the RPM has demonstrated the technical competence to establish radiation protection programs and the supervisory capability to direct the work of professionals and technicians required to implement these radiation protection programs. Additionally, the RPM has considerable management expertise which is necessary to implement the programs required for radiation protection at Comanche Peak.

1985 - 1986 TU Electric Comanche Peak Steam Electric Station

Chemistry Supervisor - Radiological and Non-radiological Environmental Monitoring Program

- o Responsible for the supervision of counting room technicians.
- o Responsible for the Radiological Environmental Monitoring Program.
- o Responsible for the Non-radiological Environmental Monitoring Program.

1983 - 1985 TU Electric - Comanche Peak Steam Electric Station

Counting Room Coordinator - Staff Chemist

- o Developed and implemented all counting room procedures.
- o Initial startup and calibration of all counting room equipment.
- o Providing training for Chemistry Technicians on operating and calibration of equipment.
- o Provided training for Chemistry Technicians regarding sample handling and preparation.
- o Received 100% agreement with NRC confirmatory measurements in 1984.

The RPM demonstrated technical competence to establish this program and provide training to chemistry technicians. This program is in direct support of Radiation Protection at CPSES.

1981 - 1983 Florida Power & Light - Turkey Point Nuclear Plant

Radiochemistry Technician coordinating all Counting Room Activities

- o Routine sampling and analysis of reactor coolant and other primary side liquids.
- o Responsible for maintenance, control and calibration of counting room equipment.
- o Responsible for training other chemistry technicians on the use of equipment and sample preparation methodology.
- o Effluent release permitting and tracking.
- o Assisting Radiochemist with preparation of the Semiannual Effluent Report.

The RPM experienced 2 refueling outages while at Turkey Point, plus the steam generator changeout for Unit 4.

As the Counting Room Coordinator, the RPM routinely handled radioactive material and was designated a source custodian under the Turkey Point RPM. Although the Counting Room at Turkey Point was under the control of the Chemistry Department, it provided all analytical support for the Health Physics Department. In many nuclear plant organizations the Counting Room is under the direction of the RPM.

While at Turkey Point, the RPM gained 2 years of operating experience related to radiation protection at a nuclear facility. This experience included an in depth knowledge of nuclear counting instrumentation (gamma spectroscopy, liquid scintillation, proportional counters and other gross counting instrumentation) and standard survey instrumentation.