



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

MAY 08 1980

Mr. Jose F. Barcia, Chairman  
Board of Trustees  
Utility Employees Association  
P.O. Box 258  
Richmond, VA 23202

Dear Mr. Barcia:

In your letter of March 18, 1980, you asked for interpretation of the NRC regulations regarding the need for training in addition to qualification testing of personnel performing quality assurance functions. You also questioned the validity of the VEPCO procedure of certifying individuals solely on the basis of passing a test which they helped to develop, and that this justifies the need for additional training.

The regulation regarding training and qualification testing of quality assurance personnel is Criterion II of Appendix B to 10 CFR Part 50 which states:

The (quality assurance) program shall provide for indoctrination and training of personnel performing activities affecting quality as necessary to assure that suitable proficiency is achieved and maintained.

For inspection, examination, and testing personnel, the NRC has endorsed (via Regulatory Guide 1.58, "Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel," August 1973 copy enclosed) an industry standard (ANSI N45.2.6-1973, "Qualifications of Inspection, Examination, and Testing Personnel for the Construction Phase of Nuclear Power Plants") as an adequate basis for complying with the regulation quoted above. The NRC endorsement extends the standard beyond the construction phase into the operations phase of nuclear power plants (Regulatory Position 1), and it also incorporates the recommended practice for personnel performing nondestructive examinations given in SNT-TC-1A, its supplements and appendices, "Recommended Practice for Nondestructive Testing Personnel Qualification and Certification" (Regulatory Position 2). VEPCO has committed to qualify QA/QC personnel to ANSI N45.2.6-1973 and NDE personnel to SNT-TC-1A.

ANSI N45.2.6-1973 provides general guidance on the training and qualification of personnel, while SNT-TC-1A is more specific. Pertinent excerpts from ANSI N45.2.6-1973 follow:

## 2. GENERAL REQUIREMENTS

### 2.1 Planning

Plans shall be developed for assigning or staffing and training an adequate number of personnel to perform the required inspections, examinations, and tests and shall reflect the schedule of project activity so as to allow adequate time for assignment or selection and training of the

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required personnel. The need for formal training programs shall be determined, and such training activities shall be conducted as required to qualify personnel responsible for inspection, examination, and testing....

## 2.2 Certification

Each person who verifies conformance of work activities to quality requirements shall be certified by his employer as being qualified to perform his assigned work. This certification shall be supported by appropriate measures such as education or training, testing, evaluation, and periodic review to assure the initial and continued proficiency of each person....

2.2.1 Training. When training programs are required they shall include indoctrination of personnel with the technical objectives of the project; the codes and standards that are to be used; and the quality assurance elements that are to be employed, with guidance regarding their limitations and capabilities. On-the-job participation shall also be included in the program, with emphasis on firsthand experience gained through actual performance of processes, tests, examinations, and inspections.

2.2.2 Proficiency Testing. In accordance with the requirements of SNT-TC-1A and supplements, tests shall be devised for determining the capability and proficiency of personnel who perform nondestructive examinations; and each person who performs these examinations shall be tested to demonstrate his capability. The results of these tests shall be documented and placed in the personnel file (see paragraph 5) and shall be considered in the evaluation described in paragraph 2.2.3.

2.2.3 Evaluation of Performance. The job performance of inspection, examination and testing personnel shall be evaluated initially and at periodic intervals not to exceed two years, and the results of each evaluation shall be reviewed to determine the capability of the individual. If it is determined that the capabilities of an individual are not in accordance with the qualifications specified for the job, that person shall be removed from operations until such time as he has been trained in the needed skill and has been re-certified as being qualified to perform the work.

2.2.4 Certificate of Qualification. The qualifications of personnel shall be documented in an appropriate form. The certificate shall include the following information:

- (1) Employer's name
- (2) Person being certified
- (3) Activity qualified to perform

- (4) Level of capability
- (5) Effective period of certification
- (6) Signature of Employer's Designated Representative
- (7) Basis used for certification. (Regarding this item, Regulatory Guide 1.58, Regulatory Position 3, indicates the basis should include both the general education and experience requirements and the specific technical requirements. The guide states further that the specific technical abilities of the person being certified should be related to the specific assigned tasks, e.g., electrical inspection, concrete inspection, etc.).

SNT-TC-1A states:

The employer shall establish a written practice for the control and administration of NDT personnel training, examination, and certification.

SNT-TC-1A includes recommended training course outlines, references for each non-destructive test method (i.e., radiography, ultrasonic, etc.), suggested examination questions, recommended grading practices, and a description of the certification process. As noted above, SNT-TC-1A is more specific than the ANSI standard. Should you desire a copy of SNT-TC-1A, it can be obtained from the American Society for Nondestructive Testing, 914 Chicago Avenue, Evanston, Illinois 60202.

In addition to the commitment to comply with Regulatory Guide 1.58 and the endorsed standards, VEPCO addresses the training of QA/QC employees in VEP-1-3A, "Quality Assurance Program - Operations Phase." Section 17.2.2.6 of VEP-1-3A states:

Training of new Vepco QA/QC employees begins with an indoctrination of company policies and the required reading of the Vepco Quality Assurance Manuals, Technical Specifications, Health Physics Manual, Emergency Plan and selected portions of the FSAR. This is accomplished under the guidance of the Supervisor - Quality Assurance Operations and Maintenance, utilizing an approved written training plan and appropriate codes and standards.

Once the employee has become thoroughly oriented with his work location, he is normally assigned for two or three weeks full time training at the operating power station for familiarization with station systems, layout and personnel. The subjects to be covered during this period are specified in an approved written training plan.

After orientation at the station, specific areas are selected for audit participation by the new employee. He is required to develop an audit plan along with a specific check list designed to guide the audit effort. This audit plan and check list is subject to review and approval by experienced QA/QC personnel. The results of initial audits are reviewed and critiqued by appropriate supervisory QA/QC personnel to provide direction for improved performance.

Various seminars dealing with quality assurance offered by outside consultants are selected for attendance by QA/QC personnel. QA/QC personnel are encouraged to participate in, and comment on, industry standards developments.


An annual review of personnel proficiency is required by Veeco corporate policy. During these reviews the station Resident Quality Control Engineer and the Supervisor - Quality Assurance, Operations and Maintenance determine the proficiency trend for each subordinate QA/QC Engineer and Engineering Technician. At this time requirements to maintain current the individual's qualification are determined. Formal outside schools, formal company training programs, reading programs, and specified on-the-job training may be assigned for requalification. Training records are maintained by the Supervisor - Quality Assurance, Operations and Maintenance.

The NRC has found that VEPCO has described an acceptable method of complying with the regulation regarding training and qualification testing of quality assurance personnel given in the first paragraph of this letter. In response to your specific concerns, it is not necessary that training be conducted for each employee unless such training is required to qualify an individual for his assigned task. Our Office of Inspection and Enforcement (IE) is responsible to verify, on a sampling basis, that VEPCO is meeting its commitments. If you are aware of any instance where VEPCO's practices are not in agreement with the program discussed above, you should so notify IE. Mr. Donald Burke is the IE resident inspector at the Surry Nuclear Power Station, and he can be reached at (804) 357-2101.

Your letter also questions the validity of the VEPCO procedure of certifying individuals solely on the basis of passing a test which they helped develop. This is not in agreement with the intent of part 2.2 of ANSI N45.2.5-1973 which is excerpted above. Therefore, we have asked Mr. Burke to investigate VEPCO's certification program for QA/QC personnel to determine if any corrective action is required.

We trust the above information provides a complete response to your inquiry. If you require additional information, please contact me or Jack Spraul of my staff at (301) 492-7741.

Sincerely,

  
Walter P. Haass, Chief  
Quality Assurance Branch  
Division of Engineering

Enclosure:  
Regulatory Guide 1.58

c: w/o enclosure:

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