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MEMORANDUM FOR: Hugh L. Thompson Jr., Director
Division of Human Factors Safety

FROM: Harold R. Booher, Chief
Licensee Qualifications Branch, DHFS

SUBJECT: PLAN TO AUDIT THE EFFECTIVENESS OF TRAINING
ACCREDITATION

The enclosed draft presents the plan for NRC activities to monitor the effectiveness of the accreditation of industry training programs. The plan represents the staff activities required to determine whether accreditation meets the intent of proposed requirements for training of nuclear power plant personnel.

NRC activities to monitor accreditation will continue to follow the schedule for INPO accreditation of utilities. Assistance for these activities will be provided under the BOA, FIN D1301. This project is being revised to assure that the contractor is not involved with review of INPO confidential documents or included on INPO team visits. The NRC project monitor for accreditation evaluation support is Jennifer Koontz.

Harold R. Booher, Chief
Licensee Qualifications Branch, DHFS

Enclosure:
As stated

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NRC ACTIVITIES TO AUDIT THE EFFECTIVENESS OF TRAINING

Introduction

The Nuclear Regulatory Commission is proposing to amend its regulations to require each holder of and each applicant for a license to operate a commercial nuclear power plant to establish and use a systems approach in developing training programs for civilian nuclear power plant operators, supervisors, technicians and other appropriate operating personnel and to establish qualifications requirements for those operating personnel.

The proposed training regulation requires that the following five essential elements of a performance-based, quality-controlled training program be included in development of training for nuclear utility personnel:

- ° Systematic analysis of the job to determine what the performer must be able to do;
- ° Performance-based learning objectives derived from that analysis;
- ° Training designed and implemented to achieve the performance-based learning objectives;
- ° Trainee evaluation during training using performance standards stated in the learning objectives; and

- ° Training program evaluation and revision based on demonstrated ability to perform in the actual job setting.

Licensees or applicants would be required to demonstrate that an existing training program, or an upgrade of that program using the systems approach to training, meets the NRC's requirements in §§50.200-50.224. Participation by a utility in a training accreditation program endorsed by the NRC will constitute the expected means of meeting the requirements of the proposed training rule.

The NRC has stated its intent to endorse the INPO-managed accreditation program and will continue to monitor its implementation by monitoring accreditation activities and by selectively reviewing utility training programs that have received accreditation. It is proposed that the NRC's detailed implementation requirements will have to be met by utilities not seeking accreditation by an NRC-endorsed accreditation program.

The NRC is developing methods to determine, from a thorough and informed analysis, whether training accreditation, i.e., the stated objectives, guidelines, and criteria for accreditation of training constitute an acceptable means of meeting the intent of the training rule (10 CFR 50.200-50.224).

Purpose

The purpose of this plan is to describe the tasks the NRC will perform in monitoring accreditation programs to determine if they should be or continue

to be endorsed. The objectives described below are applied to monitoring the effectiveness of the INPO-managed accreditation program since it is currently the only active accreditation program in the industry. However, the criteria and process of evaluation described here would be applicable to evaluation of any accreditation program. The objectives are:

- ° Determine the criteria which would satisfactorily demonstrate implementation of the basic elements of SAT as described in the five essential elements of training as described in proposed 10 CFR §§50.200-50.224.
- ° Determine whether implementation of the accreditation guidelines and criteria are consistent with the objectives of the SAT and are applied consistently and reliably.
- ° Determine whether the accreditation review teams and the accreditation board's decisions adequately reflect achievement of the SAT objectives as described in the training regulation.
- ° Determine the means to ensure the qualifications of facility instructors, including criteria for instructional skills and subject matter expertise appropriate for conducting performance-based training.

The activities described in the Approach are required to identify and assess the criteria for evaluating training programs of utilities seeking INPO-managed accreditation and for continuing NRC review of licensees' and applicants' training programs and instructor qualifications on an audit basis.

Approach

The approach to monitor training accreditation is depicted in Figure 1 and summarized below.

Task 1

NRC, with assistance from BOA Contract FIN B8700, will develop criteria which represent the requirements for implementation of the basic elements of the SAT for nuclear power plants as described in the training regulation (10 CFR §§50.200-50.224). Using the criteria described in NUREG/CR-3414 ¹/₁, and other sources (e.g., American Nuclear Insurers training inspection criteria, INPO guidelines for TSD, NRC inspection procedures and Standard Review Plan), NRC will identify the criteria which can be used by NRC to evaluate the essential elements of the SAT implementation for nuclear utility training programs. The criteria will be used as guidance in determining the effectiveness of accreditation program objectives and the implementation of the accreditation process.

1 Haas, P. M.; D. L. Selby; M. J. Hanley; R. T. Mercer, "Evaluation of Training Programs and Entry Level Qualifications for Nuclear Plant Control Room Personnel Based on the Systems Approach to Training."

Task 2

The NRC staff will review INPO training accreditation guidelines and criteria to determine if they reflect the essential elements of the SAT and the intent of the training regulation. A comparison of the INPO accreditation criteria with others will be performed to assess the completeness and the validity of the accreditation criteria as the basis for utility training program evaluation. The NRC evaluation will focus on the suitability of the INPO training accreditation guidance for fostering the SAT objectives. The basis for the evaluation will be the criteria for SAT implementation, based on the training regulation developed by the NRC.

Task 3

Using the criteria which represent implementation of the elements of the SAT, the NRC, with assistance from BOA Contract FIN D1301, will perform training reviews at a number of utilities which have received accreditation. The goal is to determine whether INPO-accredited training programs meet the essential criteria for implementation of the SAT, in accordance with the intent of the training rule. Sampling of utilities to include reviews of training programs at large and small utilities, and training development by various contractors/vendors will be done as feasible (other sampling strategies may be employed as appropriate). The reviews will also be used to identify the effects of accreditation as evidenced by utility response to recommendations of the accreditation process. Examples of utility training practices and programs that meet and do not meet the criteria for implementation of the elements of the SAT will be identified as a basis for assessing the reliability of the accreditation process across utilities.

Task 4

The NRC will continue to monitor the INPO accreditation team visits and the INPO accreditation board reviews. The goal is to verify the reliability and consistency of the INPO methodology for accreditation of training programs. In addition, INPO's methods of resolving identified training program deficiencies will be assessed in order to determine implementation problems. NRC will solicit peer reviewers' and accreditation board members' opinions regarding the INPO guidance and methods and assess the impact of training accreditation on the industry. Any problems in application of INPO guidelines and criteria, the accreditation review process, and the impact of accreditation on utility training programs will be identified by observation. Availability of documentation and ability to observe INPO accreditation teams and accreditation board meetings will determine the nature and extent of reviews.

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