

# NRC INSPECTION MANUAL

IOLB

## INSPECTION PROCEDURE 41501

### PART 52, REVIEW OF TRAINING AND QUALIFICATION PROGRAMS

#### PROGRAM APPLICABILITY: 2504

##### 41501-01 INSPECTION OBJECTIVES

To ensure that the training and qualification programs for licensed operator and non-licensed staff are designed, developed, implemented, evaluated, documented, and maintained as required by regulatory requirements and licensee commitments

##### 41501-02 INSPECTION REQUIREMENTS AND GUIDANCE

The safety of nuclear power plant operations and the assurance of general public health and safety depend on personnel performing at adequate levels. The systematic determination of qualifications and the provision of effective initial training and periodic retraining will enhance confidence that workers can perform adequately. The approach the Commission has taken in 10 CFR 50.120 and 10 CFR 55 is to specify the systems approach to training (SAT) by which applicants and licensees shall develop, implement, and evaluate personnel training programs. This approach provides for flexibility and site-specific adaptations in the training and qualification programs.

Consistent with the SAT process, each applicant and licensee is required to include the following key elements in its training programs: (1) analysis of job performance requirements and training needs, (2) derivation of learning objectives based upon the preceding analysis, (3) design and implementation of the training program based upon the learning objectives, (4) trainee evaluation, and (5) program evaluation and revision based upon the preceding evaluations.

The inspectors shall use NUREG-1220, Revision 1 "Training Review Criteria and Procedures," to evaluate the licensee's SAT process for developing, implementing, evaluating, and documenting training and qualification programs. Until the Commission makes a finding that the acceptance criteria in the combined license are met (10 CFR 52.103 (g)) and dependent upon the implementation status of the licensee's training and qualification programs, the inspectors shall use NUREG-1220 to evaluate the effectiveness of training and qualification programs in meeting and maintaining job performance needs and to evaluate the licensee's SAT process for developing, implementing, evaluating, and documenting training and qualification programs.

Section 13.2 of the Safety Analysis Report should include a description of the training and retraining program for licensed and non-licensed staff.

#### 02.01 Licensed Operator Training.

- a. Verify that the licensee has established, implemented, and maintains a licensed operator training and retraining program that complies with 10 CFR 55, Regulatory Guide 1.8, "Qualification and Training of Personnel for Nuclear Power Plants," and any licensee commitments for:

1. New reactor operators
  2. Instant senior reactor operators
  3. Reactor operators upgrading to senior reactor operator licenses
  4. Licensed reactor operators
  5. Licensed senior reactor operators
- b. Verify that licensed operator training is based on position specific task analyses, ensure that the tasks performed in each job category are defined, and ensure that training, education and experience provide assurance that the tasks can be effectively executed.

02.02 Non-licensed Staff Training.

- a. Verify that the licensee has established, implemented, and maintains non licensed staff training programs for the following programs and plant personnel in the following areas:
  1. Training programs required by 10 CFR 50.120
  2. Training positions and processes described in Regulatory Guide 1.8, "Qualification and Training of Personnel for Nuclear Power Plants,"
  3. Fire protection program and fire brigade staff
  4. Radiological emergency plan and emergency response organization
  5. Physical security plan and security staff in accordance with 10 CFR 52.79(36) (ii)
  6. Radiation protection program
- b. Verify that non-licensed staff training, as appropriate, is based on position specific task analyses, ensure that the tasks performed by persons in each job category are defined, and ensure that staff training, education and experience provide assurance that the tasks can be effectively executed.

02.03 Accreditation. If the licensee has not already achieved National Nuclear Accrediting Board training program accreditation, verify that the licensee has a plan and schedule for attaining accreditation. Verify the plan is consistent with the fuel load and startup schedules such that all fuel load and startup required staff positions are filled with fully trained and qualified personnel when required.

Applicants have committed to achieving accreditation for the categories of nuclear power plant personnel listed in 10 CFR 50.120 and 10 CFR 55. It should be noted that training programs for which regulations are in place (e.g., fire brigade, emergency response, security) are not subject to accreditation and are not affected by endorsement of accreditation.

The staff recognizes that training programs developed in accordance with Institute of Nuclear Power Operations (INPO) guidelines and accredited have been developed using SAT principles. The NRC has endorsed accreditation as a method of meeting the requirements of 10 CFR Part 55 for licensed operator training and of 10 CFR 50.120 for non-licensed staff training.

## 41501-03 RESOURCE ESTIMATES

It is estimated that approximately 160 hours of direct inspection effort will be required to conduct this procedure. A training inspection will require a minimum of four individuals: one team leader, two subject matter experts, and a person familiar with systems approach to training methodology. A subject matter expert should be assigned for each program being inspected. For inspections of operations training and/or requalification programs, an operator licensing examiner should act as the SME.

It is expected that the actual hours required to complete the inspection may vary from the estimate. The inspection hours allocated for the inspection procedure are an estimate for budgeting purposes. The hours expended during an inspection should be tailored for the facility licensee and accurately recorded.

## 41501-04 REFERENCES

10 CFR Part 52, "Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Plants."

10 CFR Part 55, "Operators' Licenses."

10 CFR 50.120, "Training and Qualification of Nuclear Power Plant Personnel."

Regulatory Guide 1.8, "Qualification and Training of Personnel for Nuclear Power Plants."

Regulatory Guide 1.149, "Nuclear Power Plant Simulation Facilities for Use in Operator Training and License Examinations."

NUREG-0711, "Human Factors Engineering Program Review Model."

NUREG-1220, "Training Review Criteria and Procedures."

NUREG-1021, "Operator Licensing Examination Standards for Power Reactors."

ANSI/ANS 3.1, 1993, "Selection, Qualification, and Training of Personnel for Nuclear Power Plants."

END



## ATTACHMENT 1

Revision History for IP 41501

Commitment Tracking Number	Issue Date	Description of Change	Training Required	Training Completion Date	Comment Resolution Accession Number
N/A	ML110310646 04/25/11 CN 11-007	Initial issue to support inspections of operational programs described in IMC 2504, NON-ITAAC INSPECTIONS. Completed 4 year historical CN search.	None	N/A	ML070090451