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SECY-90-418

December 20, 1990

For: The Commissioners
From: James M. Taylor
Executive Director for Operations

Subject: SEMIANNUAL STATUS REPORT ON THE EFFECTIVENESS OF INDUSTRY'S
LICENSED OPERATOR TRAINING PROGRAMS

Purpose: To inform the Commission about the effectiveness of the
nuclear power industry's licensed operator training programs.

Background: At the request of the Commission, the staff has prepared this
fifth semiannual status report on the effectiveness of the
licensed operator training programs in the industry.

On December 22, 1988, the staff provided the Commission with
the first status report on the effectiveness of the industry's
licensed operator training programs (SECY-88-351). The staff
issued the second, third, and fourth status reports on July 6,
1989, (SECY-89-203), January 3, 1990 (SECY-90-005), and June
28, 1990 (SECY-90-231), respectively. As described in the
four previous reports, the staff evaluated information
regarding the accreditation status and the results of the
operator licensing examinations, and reported that
accreditation continued to improve the training structure and
stimulated the development of training materials.
Furthermore, the staff viewed the industry's licensed operator
training programs as critical for enhancing reactor safety.

Discussion: The staff has considered several factors in determining the
effectiveness of the nuclear power industry's licensed
operator training programs. This report includes information
regarding (1) accreditation status and (2) the results of the
operator licensing examinations.

Status of Accreditation - In its "Policy Statement on Training
and Qualification of Nuclear Power Plant Personnel," the
Commission endorsed the accreditation program managed by the

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Institute for Nuclear Power Operations (INPO). The Commission made this endorsement with the understanding that the industry would have 10 programs at 61 sites ready for accreditation by December 31, 1986. The industry met that commitment and has made substantial progress since that date. The following paragraphs are a summary of the status of activities associated with the accreditation of licensed operator training programs.

All sites with full power licenses have INPO accredited training programs. For those sites that are newly licensed, INPO expects the submission of a self-evaluation report within two years of the initial startup. When the licensee's self-evaluation report is submitted, an accreditation team is appointed by INPO to visit the site and evaluate how well the training programs meet established accreditation criteria. A final report is prepared for the National Nuclear Accrediting Board. Senior utility managers meet with the Accrediting Board. Then, based on the accreditation team's report, the utility's response, and the INPO staff recommendation, the Accrediting Board awards, defers, or renews accreditation.

INPO has renewed accreditation for the licensed operator training programs at 51 of 77 sites; that is, four years have passed since these sites received accreditation for their programs and they have been reevaluated through a second team evaluation and appearance before the National Nuclear Accrediting Board. During the renewal team evaluation, the team addressed the adequacy of the accredited training program by conducting an onsite assessment of the licensee's training program in relation to the Accreditation Self-Evaluation Report.

When licensed operator training programs are reviewed for accreditation renewal, the team reviews the Continuing Training for Licensed Personnel program (i.e., the facility licensed operator requalification training program) for accreditation as a separate program. Therefore, these 51 sites have had their Continuing Training for Licensed Personnel program accredited as a discrete eleventh accredited program.

An NRC observer was present at 61 of the initial Accrediting Board meetings and at 28 of the renewal Accrediting Board meetings. The Commission should note that the staff intends to reduce NRC observations at accreditation boards by one-half.

On September 26, 1990, the Accrediting Board removed from the 180-day probation the Health Physics, Chemistry, Reactor Operator, Senior Reactor Operator, Shift Technical Advisor, and Non-Licensed Operator training programs at the Nine Mile Point Nuclear Power Station. At the same meeting, the Accrediting Board renewed the accreditation of those training programs. In addition, on November 7, 1990, the Accrediting Board renewed the accreditation of the Electrical Maintenance, Mechanical Maintenance, Instrument and Control, and the Technical Staff and Managers training programs at the Nine Mile Point Nuclear Power Station.

INPO monitors training through the plant evaluation process, the continuing liaison activities, and the review of industry databases. To follow-up on concerns, INPO performs a number of activities, including exchanging correspondence, conducting special plant visits, and considering the continuing accreditation status.

In its "1990 Survey of Nuclear Training Activity in U.S. Electric Utilities" (ACAD 90-013), INPO made the following observations related to licensed operator training:

- (1) The pass rate for employees taking their first reactor operator (RO) or senior reactor operator (SRO) examination in 1989 of 89 percent was the highest initial examination pass rate since information was first collected by INPO in 1983.
- (2) Seventy-three full-scale simulators were available to train licensed operators and an additional 12 are scheduled to be installed before the end of 1992.
- (3) Initial training programs for SROs and ROs included seven and nine weeks, respectively, of simulator training. In 1985, programs for both positions included only five weeks of simulator training.

Results of Operator Licensing Examinations - Licensed operator training programs continue to consistently produce candidates who pass the NRC licensing examination. The following table provides the results for candidates for replacement, upgrade, and nonpower reactor licenses for FY-1987, FY-1988, FY-1989, and FY-1990:

REACTOR OPERATOR CANDIDATES

| | PERCENT PASSED | | | |
|------------------------|----------------|----------------|----------------|----------------|
| | <u>FY-1987</u> | <u>FY-1988</u> | <u>FY-1989</u> | <u>FY-1990</u> |
| WRITTEN EXAMINATIONS | 89.8 | 90.0 | 89.9 | 92.1 |
| OPERATING EXAMINATIONS | 95.7 | 94.7 | 95.3 | 95.1 |

SENIOR REACTOR OPERATOR CANDIDATES

| | PERCENT PASSED | | | |
|------------------------|----------------|----------------|----------------|----------------|
| | <u>FY-1987</u> | <u>FY-1988</u> | <u>FY-1989</u> | <u>FY-1990</u> |
| WRITTEN EXAMINATIONS | 91.0 | 91.1 | 93.5 | 94.2 |
| OPERATING EXAMINATIONS | 91.0 | 95.2 | 92.3 | 92.6 |

This table does not include the status of licensed operator requalification examinations, which is discussed in SECY-90-266. Under a memorandum of agreement, the staff meets periodically with INPO to discuss the relationship between the current accreditation program and the results of the staff's evaluations of the licensee's requalification programs. The Commission should note that the periodic status reports related to NRC administered requalification examinations will include a discussion of industry progress in accreditation of licensed operator continuing training programs.

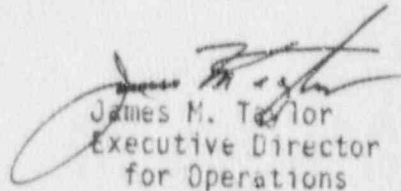
Rulemaking - As discussed in SECY-90-270, the staff is proceeding with rulemaking to comply with the April 27, 1990, decision of the U.S. Court of Appeals for the District of Columbia. As noted in SECY-90-270, the U.S. Court of Appeals concluded that the Commission did not comply with the Congressional directive to create mandatory requirements for the training and qualification of personnel at civilian nuclear power plants.

Conclusion:

All sites now have accredited licensed operator training programs and the accreditation renewal process is well established. These training programs continue to produce candidates who pass the NRC licensing examinations. Moreover, the work force continues to stabilize, and the licensees continue to renew their accredited training programs. These facts indicate that the licensees are

continuing to train reactor operators at the levels reported in each of the previous four semiannual status reports. In addition, the staff is developing a training and qualification rule.

Recommendation: Based upon continuing industry progress, the staff recommends that subsequent reports on the effectiveness of industry operator training programs pursuant to the Commission Policy Statement on Training and Qualification be submitted annually rather than semiannually until a training and qualification rule is in place.


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Commissioners' comments or consent should be provided directly to the Office of the Secretary by COB Tuesday, January 8, 1991.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT Monday, December 31, 1990, with an information copy to the Office of the Secretary. If the paper is of such nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

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