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JUN 25 1985

MEMORANDUM FOR: William T. Russell, Acting Director
Division of Human Factors and Safety

THRU: Harold R. Booher, Chief
Licensee Qualifications Branch
Division of Human Factors Safety

FROM: J. J. Persensky, Section Leader
Personnel Qualifications Section
Licensee Qualifications Branch, DHFS

SUBJECT: INPO ACCREDITATION TRAINING

On Wednesday, May 22, 1985, six staff members from the Licensee Qualifications Branch attended INPO Accreditation Training for the NRC staff. Also attending this training session were representatives of IE and NRC Regional Offices as indicated in a memo from J. J. Persensky to William T. Russell, dated May 20, 1985, except that B. Gallo substituted for J. Linville (Region I), W. Shafer was added to Region III participants, and P. McKee was the IE representative from NRC headquarters.

Participants received an agenda, a list of the job titles of INPO personnel who were making presentations, and a copy of INPO 85-002, "The Accreditation of Training in the Nuclear Power Industry," which becomes effective July 1, 1985. These materials are enclosed.

After a brief introduction by Mr. Coakley, Mr. McCullough gave an overview of the INPO accreditation process. The stated goal of INPO's accreditation process is to assist the industry in developing performance-based training which, in turn, provides benefits in the form of qualified, competent personnel, improved training through systematic peer evaluation, and standardized programs throughout the nuclear power industry.

The scope of the accreditation process encompasses on-site, off-site, and contracted training for plant-specific personnel, including all phases of ten initial and continuing training programs for operations, maintenance, and technical support personnel.

Mr. McCullough mentioned three phases in the accreditation method:

- Development of objectives and criteria for performance-based training programs by INPO,
- Demonstration by the utility that its training program meets these objectives and criteria, and

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- INPO assistance for members in developing and maintaining systematic training.

The objectives and criteria for accreditation of training programs fall into six major topical areas, each of which includes several specific categories. The major topical areas are Management, Analysis, Design, Development, Implementation, and Evaluation. The specific categories under these major areas comprise the twelve objectives and their respective criteria listed in INPO 85-002, against which utility training programs are evaluated.

The INPO accreditation process was described briefly as having four major steps. The first of these, Self-Evaluation, was described as an ongoing process in that the utility-identified weaknesses are corrected before the utility is actually considered ready for accreditation. This stage of the process may include a short "assist" visit by INPO to look at the weaknesses and suggest remediation that will prepare the utility for the second step, the INPO Accreditation Team Evaluation. There are also priorities for plants with known problems. These so-called "special assistance" plants receive assistance from INPO that will help to solve existing training problems. INPO also tracks key milestones to detect faltering at an early stage. The Accreditation Team Evaluation takes place when INPO determines that the utility is ready. The Accreditation Team reports its findings to the INPO Accrediting Board along with the utility's responses to the team report. The third step of the process is the decision to defer or award accreditation. At present, INPO has only proceeded to this step if they feel confident that accreditation will be awarded. Accreditation can be granted even if open items exist; the accrediting board must receive reports on the status of these open items frequently. (A list of programs already accredited and a quarterly projection of programs are attached to this report.)

Assuming accreditation is awarded, the fourth step in the process is maintaining accreditation. This is accomplished by the utility submitting a status report for Accrediting Board review two years after being awarded accreditation. The report must include the status of open items, major changes to the program, status of programs not yet accredited, results of internal program evaluations, and organizational changes that could have an impact on training. This interim report does not involve site visits.

Once this overview of INPO accreditation was completed, a panel discussed the revised objectives and criteria (INPO 85-002). The revisions are based on INPO's experience with the process to date. It was mentioned that the approach to self evaluation used by the utilities at the outset was not correct. Most of those self-evaluation reports submitted did not accurately reflect deficiencies in their training programs. There were also problems with format which have apparently been solved by giving specific direction in this area. The panel discussion, conducted by Messrs Fritchley, Reed, and Hanson, actually consisted of a review of INPO 85-002. The panel briefly discussed each objective and its criteria.

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Discussions on the utility self-evaluation and report format, the accreditation team evaluation, the accrediting board decision, and maintaining accreditation followed the text in INPO 85-002.

Mr. Coakley reviewed the steps involved in the team's preparation. After scheduling a visit, INPO selects a team manager and recruits peer evaluators. Sections of the utility's self-evaluation report are given to the appropriate evaluators for review. LERs for the preceding six months are also included in the review. The team arrives on Sunday evening for a brief meeting. On Monday morning, there is a team briefing, plant-specific General Employee Training, if it is considered necessary, and distribution of all materials necessary to conduct the evaluation. These materials include the INPO guidelines for accreditation, job analysis task sheets, training material for the site, lesson plans, and any other training materials considered essential to the evaluation. Evaluators also attend training classes for the specific programs being evaluated and interview selected plant and training personnel. The team manager meets with cognizant training staff in an attempt to resolve any problems that have already been identified. Daily accreditation team meetings are used to summarize and evaluate issues and concerns discovered during the review. This process is continued throughout the five-day visit. An exit meeting is generally scheduled for Friday morning. When the visit is completed, each evaluator prepares a summary for his or her specific area. Both the process and the program are included in the report. Once the first draft is prepared, the utility starts working on a response. When the second draft is prepared, the INPO team meets with the utility and the utility completes and submits responses.

The last part of the session was designated as a question and answer period as well as time for closing remarks. Mr. Coakley outlined what the NRC role is when accompanying an INPO accreditation team. NRC personnel participating in INPO accreditation visits may talk to all the evaluators on the accrediting team, and attend all interviews with utility personnel. NRC personnel are asked to refrain from asking questions of the utility, but rather to ask questions of the INPO evaluators. This does not preclude asking questions of the utility regarding the accreditation process independently. Observers will also be allowed to attend all group and team meetings and generally learn how INPO does business at a utility. NRC observers are encouraged to discuss observations with team managers and give feedback to INPO. It was also suggested that observers make every effort to be at the site visit during the entire week, including Sunday evening. Missing any part of the visit can result in missing some relevant information. The NRC representatives were particularly reminded that when on an INPO accreditation visit, the objective is to observe the accrediting process, not the plant.

NRC participants met for a few minutes at the end of the day. The need for an assessment protocol that would be used while participating in accreditation visits was discussed. Dr. Persensky asked that the Regional

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participants think about the kind of formal documentation that would be useful and what kind of assessment protocol would be most helpful to them. He asked that suggestions be forwarded to him. He also brought Regional personnel up to date on the current changes in the memorandum of understanding between the NRC and INPO that now allows NRC Regional personnel to participate in accrediting visits in their own regions. Dr. Persensky also emphasized that when we accompany the INPO accreditation teams, we are observing the INPO process and not inspecting the plants.

ISSUES/QUESTIONS/CONCERNS

During the Accreditation training session at INPO headquarters, a number of questions and concerns arose concerning various regulatory and training issues. They are briefly outlined below.

- INPO does not determine, as part of its evaluation, whether the trainees actually met the NRC qualifications requirements and prerequisites. It is the utilities' responsibility to certify that trainees meet the qualifications requirements and prerequisites. Utility-established qualifications or selection criteria are not evaluated during accreditation. Only the responsiveness of the training program to any established qualifications criteria is considered, not the criteria themselves.
- It can be assumed that by the end of 1986, all plants will have implemented a performance-based training program.
- An issue that surfaced more than once during this session was that of contracted training. Contracted training deliverers are regarded as employees of the utility; as such, the utility is responsible for ensuring that the contracted training meets the INPO objectives and criteria for accreditation.
- The question, "Is a plant-specific JTA required for all accreditation programs?" was not answered satisfactorily. Accreditation must ensure that the level of analysis performed by each plant is appropriate for the development of plant-specific task lists.
- The accreditation process does not include or address whether requalification programs cover the requalification regulations.
- The Regions questioned a utilities' ability to change a licensed operator's duties from those identified in the JTA and move identified knowledges to another position such as a Radiation Protection Technician, particularly as related to examination requirements.
- INPO does not certify graduates of an accredited program, nor the trainees, but rather the training program development process and content.

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- The accreditation review does not encompass areas where regulations or individual plant regulatory commitments are in place. Further, INPO asked that NRC inform them of any changes in utility programs that could effect accreditation.
- INPO should follow up on programs that receive accreditation but still have work to do to fully meet the objectives. The status of plants with such "open items" should be reviewed by the Accreditation Board to ensure full and continuing compliance with the accreditation objectives and criteria.
- Since accreditation has never been deferred for any programs to date, INPO should establish definitive criteria to decide on recommending a training program to the accreditation board.
- Since INPO reportedly establishes priorities for plants with known training problems, the mechanism for evaluating training program effectiveness should be identified.
- INPO should have some means of follow up to ensure that an accredited training program has been implemented.
- The accreditation process should have a means for handling job positions (e.g., radwaste operator, welder) not corresponding to the programs to which accreditation applies.
- The accreditation process, although it evaluates instructor skills, needs a mechanism for ensuring that instructor training is appropriate for maintaining those skills.
- The accreditation process does not appear to ensure that learning objectives, as the basis for training program development, are the basis for trainee evaluation. Although trainee evaluation is a criterion for accreditation, it need not be based on the training objectives per se, according to INPO.
- Accreditation does not appear to ensure valid and reliable examination development, review, and scoring for evaluating trainee mastery of learning objectives.

J. J. Persensky, Section Leader
 Personnel Qualifications Section
 Licensee Qualifications Branch, DHFS

DW/DSM2/Accreditation Training

JP 6/25/85 *MB*

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DATE	6/14/85	6/18/85	6/20/85	6/20/85	6/17/85	6/14/85	6/25/85

INPO Accreditation Training
for NRC Staff

May 22, 1985

8:00 - 8:15 a.m.	Coffee and Doughnuts	
8:15 - 8:30	Welcome and Introduction	W. J. Coakley
8:30 - 9:15	Workshop Objectives and Overview of INPO Accreditation	P. N. McCullough
9:15 - 11:30	Panel Discussion of Revised Objectives and Criteria	R. L. Fritchley, R. E. Reed, and J. A. Hanson
11:30 - 12:30 p.m.	LUNCH	
12:30 - 1:30	Utility Accreditation Self- Evaluation and Report Format	W. A. Nevins
1:30 - 3:15	Panel Discussion of INPO Accreditation Team Evaluation	J. A. Hanson and F. M. Cabanillas
3:15 - 4:00	INPO Accrediting Board Decision and Maintaining Accreditation	W. F. Popp
4:00 - 4:30	Questions and Answers and Closing Comments	W. J. Coakley

INPO Staff

K. A. Strahm	Vice President and Director, Training and Education Division
W. J. Coakley	Manager, Accreditation Department
P. N. McCullough	Section Manager, Training System Review Section, Accreditation Department
W. F. Popp	Section Manager, Operations and Technical Review Section, Accreditation Department
R. E. Reed	Team Manager, Accreditation Department
R. L. Fritchley	Team Manager in Training, Accreditation Department
J. A. Hanson	Team Manager in Training, Accreditation Department
W. A. Nevins	Process Evaluator, Accreditation Department
F. M. Cabanillas	Process Evaluator, Accreditation Department

PROGRAMS ACCREDITED

<u>PLANT</u>	<u>PROGRAMS</u>	<u>DATE</u>	<u>PLANT</u>	<u>PROGRAMS</u>	<u>DATE</u>
Oconee	N,R,S,A	8/17/83			
ANO	N,R,S	1/11/84			
Sequoyah	N,R,S,A,I,C,H,T	1/11/84			
Robinson	N,R,S	5/16/84			
Calvert Cliffs	N,R,S	5/16/84			
	C,H	12/19/84			
Summer	N,R,S,A	9/26/84			
Farley	N,R,S,A	12/20/84			
TMI-1	N,R,S,A,H	2/28/85			
Salem	N,R,S,A,I	3/26/85			

Program Key: N - Nonlicensed Operator
 R - Licensed Operator (RO)
 S - SRO and Shift Supervisor
 A - Shift Technical Advisor
 I - Instrument and Control Technican

E - Electrical Maintenance
 M - Mechanical Maintenance
 C - Chemistry Technician
 H - Radiological Protection Technician
 T - Managers and Technical Staff



Institute of
Nuclear Power
Operations

1100 Circle 75 Parkway
Suite 1500
Atlanta, Georgia 30339
Telephone 404 953-3600

September 20, 1985

The Honorable Daniel P. Moynihan
United States Senate
Washington, D.C. 20510

Dear Senator Moynihan:

We recognize and appreciate your interest in the training of personnel working in nuclear power plants. Further, your introduction of Senate Bill-16, "National Nuclear Power Plant Personnel Training Act of 1985," on January 3rd of this year was an important initiative. In response to that initiative, we have carefully examined the role of the Institute of Nuclear Power Operations in industry training.

Based on that analysis, and as indicated in my testimony on June 27, 1985, and in my letter to you of August 19, 1985, we believe that the basic elements of a training academy for the industry are in place. We conclude that by integrating and enhancing industry and INPO activities, we can indeed establish the structure for a National Academy for Nuclear Training for the utility industry.

I wanted to call this to your attention because of your interest in this area. We are certainly not attempting to pre-empt your initiative. Instead, we believe we are responding to it in a way that will help strengthen industry training and that will meet the intent of most aspects of your initiative. We remain ready to work with your staff, or the Senate Environment and Public Works Subcommittee on Nuclear Regulation, to further enhance our efforts in this important area.

I have enclosed a chronology of the events of the past six years that led to the development of the structure for an academy, as well as the charter of the National Academy for Nuclear Training.

We would welcome comments from you or your staff on this matter.

Respectfully,

A handwritten signature in black ink that reads "Zack T. Pate". The signature is written in a cursive style with a large, sweeping 'Z' and 'P'.

Zack T. Pate
President

ZTP:dsh
Attachments: Chronology, Charter
cc: The Honorable Alan K. Simpson

FOIA-87-787

H/10



Institute of
Nuclear Power
Operations

1100 Circle 75 Parkway
Suite 1500
Atlanta, Georgia 30339
Telephone 404 953-3600

September 20, 1985

The Honorable John S. Herrington
Secretary
United States Department of Energy
Washington, D.C. 20585

Dear Mr. Secretary:

Thank you for your encouragement and leadership interest in quality nuclear training. The purpose of this letter is to describe the National Academy for Nuclear Training being established by the nuclear utility industry. The academy concept consolidates the extensive industrywide training activities associated with the INPO-managed training accreditation program.

Since the Three Mile Island accident in 1979, the utility industry has made a major effort to improve nuclear plant training. Further, the development and management of a nuclear training accreditation program was an original part of the INPO charter in 1979. Since 1979, the Administration, DOE, NRC and Congress also have shown a considerable interest in nuclear training.

At the Nuclear Power Assembly last May, you noted that the industry should be open to the concept of "an industry-sponsored national academy for training, testing, safety, and evaluation." The incentive provided by this statement, as well as that provided by Senate Bill 16, "The National Nuclear Power Plant Personnel Training Act of 1985," prompted a number of utilities and INPO to re-review our activities in the training area. We recognized that the existing INPO-managed accreditation program, in conjunction with utility efforts industrywide, represented the basis for a national academy for nuclear training.

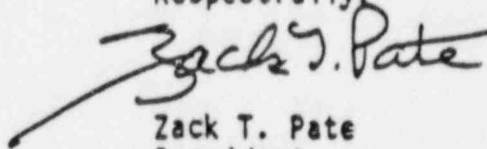
INPO's Board of Directors, representing the member utilities, approved the final plans for the Academy at its September 18 meeting.

The Academy will be supported and administered by INPO. Accreditation of training programs will be awarded by the National Nuclear Accrediting Board. This body of eminent Americans, with a majority of its membership from outside the utility industry, is independent in its decision making authority. Each decision making board will include a representative nominated by the Federal government.

Secretary John S. Herrington
September 20, 1985
Page 2

Enclosed for you and your staff's information and use are a chronology of events leading to the formation of the Academy, a copy of its charter, and a brochure describing the various training activities that are a part of the Academy. We would welcome your comments on our plans and look forward to your support in this important endeavor.

Respectfully,

A handwritten signature in cursive script that reads "Zack T. Pate". The signature is written in dark ink and is positioned above the typed name and title.

Zack T. Pate
President

ZTP:dsh
Enclosures: Charter, Brochure, Chronology

CHRONOLOGY OF NUCLEAR INDUSTRY TRAINING-RELATED
ACTIVITIES SINCE THE THREE MILE ISLAND ACCIDENT

- 1979 - Utility training program quality and scope varied greatly; at many utilities most training resources were dedicated to licensed operator training, and other personnel training or received little attention.
- (October) The President's Commission on the Accident at Three Mile Island (Kemeny Commission) recommended the establishment of accredited training institutions.
- (December) In a "White House Fact Sheet" (Sect. c.) December 7, 1979, the President asked INPO, with assistance from DOE, to develop a program for upgrading and accrediting training.
- 1980 - (March) The President appointed the Nuclear Safety Oversight Committee. The committee was chaired by Governor Babbitt of Arizona. Its purpose was to assess progress in implementing Kemeny Commission recommendations. In its April 1981 report to the President, the Commission stated that INPO had "taken steps to improve personnel training As a result, we believe that the overall competence of personnel within the industry will be improved." It further stated, "If the existing impetus toward higher standards and better training can be maintained, we advise against further consideration of national academy type proposals."
- (September) INPO formed a Task Force to review the question of whether training centers should be located at each utility or established on a regional or national basis. The purpose of this study was to help INPO determine how to structure its training accreditation program. The task force recommended (in March 1981) in favor of local, utility-based training centers.
- (December) Congress enacted the "Nuclear Safety Research, Development, and Demonstration Act of 1980." The act directed the Secretary of Energy to consider the establishment of a National academy to train a corps of nuclear professionals. The DOE report (in December 1981) concluded that the objectives of a Federal Nuclear Operations Corps could best be met by existing efforts and that there was no need to establish another institution.

- 1982 - (May) INPO published and implemented procedures and criteria for accreditation that reflected the approach that had been selected after lengthy study - training controlled and conducted locally by individual utilities, evaluated by INPO and accredited by an independent Accrediting Board. The procedures called for all programs at operating plants to be ready for accreditation within four years.
- 1983 - (January) Section 306 of the Nuclear Waste Policy Act of 1982 directed the NRC to promulgate regulations or regulatory guidance for the training and qualifications of nuclear power plant personnel.
- (August) First training programs accredited.
- 1984 - (January) INPO completed development and publication of a set of guidelines covering training and qualification programs for nuclear power plant personnel in key positions or engaged in key activities related to plant operations and maintenance.
- (March) The Nuclear Utility Management and Human Resources Committee (NUMARC) was formed to help the industry retain the initiative in management and people-related activities.
- 1985 - (January) Senator Daniel Moynihan (D-NY) introduced Senate Bill 16, "The National Nuclear Power Plant Personnel Training Act of 1985," which would establish a National Academy for Nuclear Power Safety.
- (March) NRC issued a Policy Statement on Training and Qualifications of Nuclear Power Plant Personnel that endorsed the INPO-managed accreditation program and gave the industry a two year period to show responsiveness.
- In reviewing Senator Moynihan's bill, it was recognized that the industry had many elements of an academy in place. Senate Bill 16 served as a catalyst to strengthen and integrate industry and INPO activities into a unified effort.
- (June) INPO and others testified at a hearing of the Senate Environment and Public Works Subcommittee on Nuclear Regulation that the industry has in place the essential elements of a national academy for nuclear training.
- (July) INPO completed industrywide job and task analysis of key nuclear plant positions. This systematic process, which costs the utility industry more than ten million dollars over a four year period, identifies the knowledge and skill requirements for these positions.

(1980 -
1985)

Throughout this period, utilities have taken aggressive action to upgrade training and training facilities as demonstrated by

- The installation of many specially designed, state-of-the-art training centers, located conveniently to the plant. Utilities have dedicated almost 1.6 million square feet of space exclusively to training nuclear plant personnel - more than three times the amount in use five years ago.
- The purchase of multi-million dollar control room training simulators, an investment of around \$10 million each. Six years ago there were 10 training simulators in the industry. Currently, 44 training simulators are in operation, and when those that are planned or under construction are completed, 70 will be in operation.
- An increase in size of plant nuclear training staffs. Several years ago, a typical nuclear plant training staff consisted of one coordinator and a handful of instructors. Today an average of 24 instructors and five other training professionals are working at each nuclear plant in the country - over four times as many as there were just five years ago.
- An increase in the number of operating personnel to a level allowing time for appropriate initial and continuing training.
- The adoption by all utilities of the performance-based systems approach to training. A Training Systems Development model has been adapted to the unique needs of the nuclear utility industry and all utilities have committed to have their key training programs accredited by the INPO-managed accreditation program.

1985 - (July) INPO Board of Directors approved of the concept of an INPO-managed national academy and directed INPO to begin efforts to integrate existing activities into an academy structure.

(September) INPO Board of Directors approved the final plans for the National Academy for Nuclear Training.

9/18/85

NATIONAL ACADEMY FOR NUCLEAR TRAINING

- CHARTER -

The National Academy for Nuclear Training (the Academy), established by the U.S. nuclear utility industry, helps ensure safe and reliable operation of nuclear electric generating plants through the promotion of high quality, performance-based training for nuclear power plant personnel. The Academy integrates the activities of individual utilities, the Institute of Nuclear Power Operations (INPO), and the National Nuclear Accrediting Board. Each utility that operates or is building a nuclear-powered electric generating plant has made a commitment to achieve accreditation of its training programs and is a member or provisional member of the Academy.

The Academy operates under the auspices of the Institute of Nuclear Power Operations (INPO) and includes the following:

- o the nuclear utilities training facilities
- o the National Nuclear Accrediting Board
- o a Council for the National Academy
- o the Training and Education Division of the Institute of Nuclear Power Operations -- The Vice President and Director of Training and Education activities at INPO is the Executive Director of the National Academy for Nuclear Training.

This overall charter serves as the governing document for the Academy and includes the following sections:

- I. Membership, Organization, and Operating Procedures
- II. Charter for the National Nuclear Accrediting Board
- III. Charter for the Academy Council
- IV. Accreditation Procedures and Criteria

I. MEMBERSHIP, ORGANIZATION, AND OPERATING PROCEDURES

Membership

There are two categories of Academy membership: member and provisional member. All utilities that operate or are building a nuclear-powered electric generating plant are members of INPO and all have made a commitment to participate in the INPO-managed accreditation program. Therefore, all utilities that are members of INPO are members or provisional members of the Academy. When all applicable training programs at all of a utility's nuclear plants are accredited, it becomes a member of the Academy. Loss of accreditation at a plant that has been accredited or failure to achieve accreditation at a new plant within two years after fuel load may result in a member reverting to provisional membership and can result in loss of membership in the Academy (and INPO).

Organization

1. The Director of the INPO Training and Education Division serves as the Executive Director of the Academy. As such, he reports to the President of INPO on matters pertaining to the Academy.
2. Member and provisional member utilities retain full responsibility for their training programs. Each member and provisional member of the Academy designates an individual (normally the senior executive responsible for nuclear plant operations and for training) as its official representative to act for the utility on matters related to the Academy.
3. Nine to twelve utility representatives selected from Academy member and provisional member utilities form an Academy Council (the Council). The Council's organization and operation are specified in its charter (Section III of the Academy charter).
4. An Accrediting Board is comprised of several representatives from each of the following communities: INPO member utilities, non-nuclear industrial training, post secondary education, and persons nominated by the Nuclear Regulatory Commission. A majority of the Accrediting Board is from outside the utility industry. The Accrediting Board organization and operations are set forth in its charter (Section II of the Academy Charter).

Operating Procedures

1. Day-to-day operation of the Academy is the responsibility of the Executive Director.
2. Policies, procedures, and criteria necessary for the operation of the Academy are established by the Executive Director, with advice from the Academy Council. The principle policies, procedures, and criteria are contained in the INPO document: The Accreditation of Training in the Nuclear Power Industry (Section IV of the Academy Charter)
3. INPO provides financial and staff support for administration of the Academy. This support is administered through the Training and Education Division.
4. The Academy facilitates sharing of training program materials and information among utilities. The Executive Director communicates with designated utility representatives on accreditation and training-related matters.
5. The Academy Council meets with the Executive Director periodically and provides advice on all matters pertaining to the operation of the Academy. Detailed operating procedures for the Council are set forth in part III of this charter.
6. The National Nuclear Accrediting Board reviews training programs that are proposed for accreditation. The Board awards accreditation to training programs that meet accreditation objectives and criteria established by INPO. The results of the Accrediting Board's decisions are considered in determining a utility's Academy membership status. Detailed operating procedures for the Accrediting Board are provided in part II of this charter.
7. When the first training program at a plant is accredited, that plant is designated as a branch of the Academy and is authorized to issue certificates to graduates of accredited training programs.
8. The Academy prepares appropriate certificates that can be awarded to graduates of an accredited training program. Copies specific to the utility and program are provided to the utility when their program(s) are accredited. The utility awards the certificates to individual graduates of accredited programs.

II. CHARTER FOR THE NATIONAL NUCLEAR ACCREDITING BOARD

The National Nuclear Accrediting Board is the decision-making body for awarding accreditation of nuclear utility training. The authority to accredit nuclear utility training programs is assigned to INPO by its members. Members of the board serve on behalf of the nuclear utility industry and render an important professional service.

Membership

The Accrediting Board will be comprised of several representatives from each of the following communities:

- o INPO member utilities
- o non-nuclear industrial training
- o post-secondary education
- o persons nominated by the Nuclear Regulatory Commission

Members are selected by the president of INPO after consultation with the chairman of the Accrediting Board, and will be considered installed when they have provided written notice to INPO of their acceptance. While the total number of members depends on need and is at the discretion of the president of INPO, it is anticipated that a board strength of 15 to 20 members will be maintained. This allows for 3 to 4 working boards of 5 members each.

Members normally serve four years, with terms of one-fourth of the members expiring each year, normally at the end of the calendar year. Extensions may be granted on an individual basis.

Officers

The chairman is selected and appointed by the president of INPO and should normally have one year of experience as a board member before appointment. The chairman has the authority to ensure the proper functioning of the board, presides at meetings attended, and assists in selecting five board members to consider each utility application.

The vice chairman may be any board member designated by the chairman with the concurrence of the president of INPO. The vice chairman will preside at the meetings of the board in the absence of the chairman. If neither the chairman nor vice chairman can be present, a chairman pro tem will be designated by the chairman.

The secretary will normally be the manager of the INPO Accreditation Department. He is responsible for administrative matters relating to the board and is an ex officio member of the board who will not have a vote in the decisions of the board. The secretary will be present during all deliberations of the board, at the discretion of the chairman.

Meetings

Meetings of the board will be scheduled in advance to meet the anticipated workload. Meetings may be called by the chairman or the president of INPO as needed.

To consider each utility application, the chairman (with the assistance of the secretary) will select five board members as follows:

- o two members from INPO member utilities
- o one member from non-nuclear industrial training organization
- o one member from the post-secondary education community
- o one member nominated by the Nuclear Regulatory Commission

Four persons so designated (at least one from each category) must be present to constitute a quorum, and three affirmative votes will be required to award accreditation.

Duties and Responsibilities

In acting on utility applications for accreditation, the National Nuclear Accrediting Board has the following duties and responsibilities:

- o review the utility self-evaluation report, the INPO accreditation team report, and the utility's responses to that report in advance of each meeting
- o meet to discuss and review each program proposed for accreditation, and question the INPO staff and the utility representatives concerning the programs being reviewed, as necessary
- o take final action to award or defer accreditation based on the INPO accreditation criteria
- o if accreditation is deferred, recommend to the president of INPO actions required by the utility to achieve accreditation (The president of INPO will forward a report notifying the utility that accreditation has been deferred and describing the additional actions needed to achieve accreditation.)
- o hold confidential all proceedings as well as the accreditation materials reviewed

Compensation

Utility industry representatives will not be compensated. Representatives from non-utility organizations will be reimbursed for travel expenses and may receive an honorarium.

III. CHARTER FOR THE ACADEMY COUNCIL

Purpose

The Academy Council (the Council) identifies and examines training-related issues in the nuclear power industry and advises the Executive Director of the National Academy for Nuclear Training on Academy activities, policies, and procedures.

In its role of advisor to INPO on training-related matters, the Council provides industry feedback and recommendations on INPO documents, projects, methods, and activities. The Council reviews INPO documents for accuracy, applicability, completeness, impact, and responsiveness. The Council advises on all INPO Training and Education Division activities, since these activities are related to and in support of the National Academy.

Organization

1. Chairman

- a. The Chairman shall preside at the meetings of the members and have authority as necessary to ensure the proper functioning of the Council.
- b. The Chairman shall normally be nominated by the incumbent, with concurrence by the Executive Director, and appointed by the President of INPO.
- c. Nominees for Chairman should normally have served at least one year as a Council member.

2. Secretary

- a. The Secretary shall be an INPO staff member designated by the Executive Director
- b. The Secretary is responsible for administrative matters relating to the Council and in such matters reports directly to the Executive Director.

3. The Council shall consists of nine to twelve members. Members are selected from Academy member and provisional member utilities. Factors affecting selection include the following:

- o recent nuclear-related and training-related experience of the individual
- o current nuclear-related and training-related responsibilities of the individual
- o utility size, geographic location, ownership, and plant type(s)

4. The Council shall not have more than one member from any one utility.
5. The backgrounds of most of the individual Council members should include one or more of the following:
 - o management experience in a position responsible for overall operation of an operating nuclear plant
 - o management experience in supervising training or training support to an operating plant or near-term operating plant
 - o line nuclear management experience in a utility with accredited training programs
6. Council members shall be selected as follows:
 - a. The Current Council Chairman and the Executive Director consider suggestions for new Council members from member utilities or INPO staff and arrive at recommendations.
 - b. The Executive Director of the Academy annually submits a list of proposed members for the following year to the President of INPO.
 - c. The President of INPO appoints new Council members.
7. Resignation of a Council member should be made to the Council Chairman with a copy to the Executive Director.
8. In the event of a resignation, the Executive Director will recommend a replacement to the President of INPO. The replacement will fill the unexpired term of the resigned member.
9. Membership on the Council may be terminated by a vote of the majority of members or by the President of INPO.
10. If a Council member's position within his utility changes, or if the member changes organizations, the suitability of continued membership on the Council will be reviewed by the chairman and the Executive Director.
11. Meetings
 - a. The Council shall meet at least twice each calendar year.
 - b. Council meetings shall normally be held at INPO on dates selected by the Chairman and the Executive Director to provide for maximum attendance of members.
 - c. Agendas for meetings shall be prepared by the Secretary with concurrence by the Chairman and the Executive Director.

12. Council members receive no compensation for their services. Expenses are paid by the members' employers.
13. Terms
 - a. Members normally serve three-year terms.
 - b. Terms are normally staggered to ensure continuity of membership.
 - c. Terms shall normally expire at the end of a calendar year.
14. Items appropriate for input or review are determined by the Executive Director with input from the Chairman.
15. The method and extent of Council member review shall be as agreed upon by the Executive Director and the Council Chairman.
16. Members shall be provided review items in sufficient time to allow for an adequate review prior to issuance or implementation.

IV. ACCREDITATION PROCEDURES AND CRITERIA

The current revision of the INPO document, The Accreditation of Training in the Nuclear Power Industry, includes the procedures and criteria for achieving training program accreditation and is incorporated as a part of this charter by reference..

9/18/85

Training:

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U.S. Nuclear Utility Training

Nuclear utilities have long been aware of the special role of training in their plants. This awareness has grown into an extensive, industrywide effort to improve and sustain the training performance of all utilities.

The National Academy for Nuclear Training was established to focus and unify industrywide efforts. All U.S. electric utilities that operate or are building nuclear power plants are members of the Institute of Nuclear Power Operations, INPO, and are therefore eligible to be members of the academy. The academy provides the framework to coordinate the various training activities.

The academy is supported and administered by INPO, which was formed by the nuclear utility industry in late 1979 to promote improvements in nuclear plant safety and reliability. The director of the Institute's Training and Education Division, a corporate vice president, serves as the academy's executive director.

INPO and the academy are vehicles for industrywide improvement

INPO manages the industrywide program for the accreditation of training programs for key operations, maintenance and technical support personnel in nuclear plants. Every nuclear utility in the United States has accepted this accreditation program and accepted membership in the academy by making a commitment to have its plant training programs accredited. And the U.S. Nuclear Regulatory Commission (NRC) has encouraged and formally endorsed this accreditation process.

One of INPO's missions is to assist the industry in upgrading training. This assistance leads to accreditation of key training programs by the Independent National Nuclear Accrediting Board.

When a plant's first training program is accredited, it becomes a branch of the academy and is eligible to issue certificates to graduates of accredited programs. Accreditation of all training programs at all of a utility's nuclear plants is a condition of full membership in the National Academy for Nuclear Training.

But accreditation and full academy membership come only after solid commitments and hard work. Nuclear utilities are building, buying, hiring, organizing and working to ensure their training and qualification programs produce talented, competent and motivated people to operate the nation's nuclear power plants to very high standards of safety and reliability.

Training facilities are on the rise around the industry

In the past, training facilities at nuclear plants did not always receive the attention they needed. Today, separate facilities and special instructional areas have been established or expanded to enhance training. Utilities have almost 1.6 million square feet of space dedicated exclusively to training nuclear plant personnel—more than three times the amount in use five years ago.

Specially designed, state-of-the-art training centers, located conveniently to the plant, are becoming the norm across the industry. Classrooms and laboratory training facilities include sophisticated training aids, such as duplicates of many plant-specific components and equipment and scale models of other components and equipment.

Multimillion dollar control room training simulators meet a need

More and more nuclear utilities are buying computer-based control room training simulators, an investment of several million dollars for each installation. They duplicate individual nuclear plant control

rooms and allow operators to hone their skills in dealing with normal plant operations, abnormal events and simulated accidents. Utilities are finding that these simulators provide an invaluable return in better preparing the operators for unusual events.

Six years ago, there were 10 training simulators in the industry. Currently, 48 simulators are in operation, and when those that are planned or under construction are completed, 73 will be in operation.

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As part of the accreditation process, which evaluates and verifies the effectiveness of utility training, the independent National Nuclear Accrediting Board determines whether a utility's training programs meet accreditation standards. A utility cannot become a full member of the National Academy for Nuclear Training until all of its training programs meet these standards.

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Board makes final accreditation decision

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nonlicensed operator
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- William R. Kiesel, Ph.D. (3)**
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 University of Missouri—Columbia
- George E. Moore (2)**
 Director, Education Department (retired)
 Westinghouse Electric Corporation
- Russell E. O'Hall, Ph.D. (3)**
 Dean Emeritus, Engineering and
 Applied Science
 University of California, Los Angeles
- A. Lee Olsen (1)**
 Vice President, Nuclear Operations
 Boston Edison Company
- John M. Palm, Ph.D. (3)**
 Vice President for Academic Affairs
 Emory University
- Carroll Reed (2)**
 Vice President
 Commonwealth Edison Company
- Forrest J. Rensick, Ph.D. (4)**
 Associate Vice President for Research
 Pennsylvania State University
- Carlton E. Robinson, Ph.D. (4)**
 Professor, Nuclear Engineering
 Pennsylvania State University
- Robert L. Smith, Ph.D. (3)**
 Head, Department of Nuclear and
 Energy Engineering
 University of Arizona
- Charles J. Sauer (2)**
 Assistant Vice President (Retired)
 Bell Communications Research Inc.
- Samuel J. Tscholl, Ph.D. (1)**
 Senior Vice President, Energy Production
 Iowa Electric Light and Power Company
- E. G. Woody (1)**
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 Florida Power & Light Company

Training: A National Accomplishment

*National
Academy
for Nuclear
Training*

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National Nuclear Accrediting Board

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- **Blaise Clark Jr. (4)**
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- **Frank C. Fogarty (4)**
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Chief Human Factors Engineer
McDonnell Douglas Corporation
- **William B. Kead, Ph.D. (3)**
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- **George E. Moore (2)**
Director, Education Department (Retired)
Westinghouse Electric Corporation
- **Russell E. O'Neill, Ph.D. (3)**
Dean Emeritus, Engineering and Applied Science
University of California, Los Angeles
- **A. Lee Ossen (1)**
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Boston Edison Company
- **John M. Palms, Ph.D. (3)**
Vice President for Academic Affairs
Emory University
- **Cardell Reed (1)**
Vice President
Commonwealth Edison Company
- **Verret J. Seneck, Ph.D. (4)**
Associate Vice President for Research
Pennsylvania State University
- **Gordon E. Bobbins, Ph.D. (4)**
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University of Arizona
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- **Samuel J. Tutbill, Ph.D. (1)**
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Institute of Nuclear Power Operations

The nuclear utility industry, through INPO, has dedicated resources and expertise to assist individual utilities in upgrading their training, as necessary. The Institute, as part of its role in the National Academy for Nuclear Training, assists utilities in developing, implementing and maintaining their training activities.

INPO is responsible for the day-to-day administration of the academy; however, member utilities retain full responsibility for the training of their personnel.

An Academy Council provides overview and advice to INPO on the operation of the National Academy for Nuclear Training. The council is comprised of executives or senior managers from member utilities. The Academy Council meets periodically with the executive director to review academy activities, as well as all INPO training programs and activities.

The following INPO activities support utility efforts to improve nuclear plant training:

Training assistance: INPO provides assistance to nuclear utilities on request. This assistance takes many forms, covering virtually all aspects of nuclear plant training.

Job and task analysis: Using industry expertise and experience, INPO has conducted analyses of key nuclear plant positions. These analyses identify tasks performed in each job and set forth the knowledge and skills needed for these jobs. A computer data base contains this information, and utilities use it to help ensure that their curricula cover the necessary topics.

Training and qualification guidelines: Using input from the industry, as well as analysis of jobs and tasks in key nuclear plant positions, INPO has developed 17 guidelines. These guidelines describe the specific components needed for the training and qualification of personnel in nuclear power plant positions.

Workshops and seminars: INPO sponsors special workshops and seminars for utility training personnel to assist them in developing their own training systems.

Nuclear plant evaluations: INPO evaluates each nuclear plant in the United States on a regular basis. On every INPO plant evaluation, both the conduct of training and the results of training—how personnel perform their jobs—are examined. By focusing on how workers actually apply knowledge and skills in the plant, these evaluations provide INPO and the executive director of the academy with independent feedback on the quality of training and the quality of the graduates from accredited training programs.

Training is a vital part of the industry's overall effort to improve plant operations

Individual nuclear utilities are dedicating substantial manpower and other resources to upgrade training. This is leading to accreditation and full membership status in the National Academy for Nuclear Training. These utility efforts constitute an industry-wide, self-initiated, self-improvement program.

The impetus behind these efforts is a realization that training is a key to achieving high standards of nuclear plant safety and reliability.

The nuclear utility industry has made strong commitments to accreditation and the National Academy for Nuclear Training. This industrywide commitment to excellence in training is a national accomplishment.

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- A formal presentation on the training programs is made to the accrediting board, and the board makes the decision to award or defer accreditation.

Board makes final accreditation decision

The National Nuclear Accrediting Board is comprised of 15 to 20 eminent American scholars and executives from the following four groups:

- senior utility representatives
- non-nuclear industrial training experts
- representatives from the post-secondary educational community
- individuals nominated by the NRC

A working board of five individuals meets to consider accreditation for each nuclear plant's training programs. This working board includes one or more individuals from each of the classifications listed above and must have a majority of representatives from outside the nuclear utility industry. This ensures that the National Nuclear Accrediting Board is truly independent of the utility industry in its decision-making process.

When training programs come before the board, members examine the report of the accreditation team and the utility's responses, as well as the utility self-evaluation report. They question representatives of utility senior management, plant management and training management, and they determine whether the training meets accreditation objectives and criteria.

The accreditation program, by requiring re-accreditation every four years, ensures that the utility's training system maintains training quality. To achieve and retain accreditation, a utility's training system must include an effective, ongoing process to identify and implement changes as they are needed.

Accrediting Board Legend

- (1) utility representative
- (2) nonnuclear industrial training representative
- (3) post-secondary education representative
- (4) NRC nominee

National Nuclear Accrediting Board

- **John E. Carroll (2)**
Vice President, Training (Retired)
United Airlines
- **Lincoln Clark Jr. (4)**
Associate Director of Nuclear Reactor
Laboratory and Director of
Reactor Operations
Massachusetts Institute of Technology
- **Frank C. Fogarty (4)**
Associate General Manager,
Experimental Programs
EG&G Idaho Incorporated
Idaho National Engineering Laboratory
- **Dennis E. Gilberts (1)**
Senior Vice President, Power Supply
Northern States Power Company
- **John M. Griffin (1)**
Senior Vice President, Energy Supply
Arloness Power & Light Company
- **Wayne H. Jones, Ph.D. (1)**
Vice President, Nuclear Operations
The Detroit Edison Company
- **Edward R. Jones, Ph.D. (2)**
Chief Human Factors Engineer
McDonnell Douglas Corporation
- **William R. Kiesel, Ph.D. (3)**
Dean, College of Engineering
University of Missouri—Columbia
- **George E. Moore (2)**
Director, Education Department (retired)
Westinghouse Electric Corporation
- **Russell E. O'Neill, Ph.D. (3)**
Dean Emeritus, Engineering and
Applied Science
University of California, Los Angeles
- **A. Lee Owsen (1)**
Vice President, Nuclear Operations
Boston Edison Company
- **John M. Palms, Ph.D. (3)**
Vice President for Academic Affairs
Emory University
- **Carroll Reed (1)**
Vice President
Commonwealth Edison Company
- **Forrest J. Renick, Ph.D. (4)**
Associate Vice President for Research
Pennsylvania State University
- **Gordon E. Robinson, Ph.D. (4)**
Professor, Nuclear Engineering
Pennsylvania State University
- **Robert L. Sells, Ph.D. (3)**
Head, Department of Nuclear and
Energy Engineering
University of Arizona
- **Charles J. Sizer (2)**
Assistant Vice President (Retired)
BSC Communications Research Inc.
- **Samuel J. Tordella, Ph.D. (1)**
Senior Vice President, Energy Production
Iowa Electric Light and Power Company
- **C. G. Woody (1)**
Vice President, Nuclear Operations
Florida Power & Light Company

Institute of Nuclear Power Operations

The nuclear utility industry, through INPO, has dedicated resources and expertise to assist individual utilities in upgrading their training, as necessary. The Institute, as part of its role in the National Academy for Nuclear Training, assists utilities in developing, implementing and maintaining their training activities.

INPO is responsible for the day-to-day administration of the academy; however, member utilities retain full responsibility for the training of their personnel.

An Academy Council provides overview and advice to INPO on the operation of the National Academy for Nuclear Training. The council is comprised of executives or senior managers from member utilities. The Academy Council meets periodically with the executive director to review academy activities, as well as all INPO training programs and activities.

The following INPO activities support utility efforts to improve nuclear plant training:

Training assistance: INPO provides assistance to nuclear utilities on request. This assistance takes many forms, covering virtually all aspects of nuclear plant training.

Job and task analysis: Using industry expertise and experience, INPO has conducted analyses of key nuclear plant positions. These analyses identify tasks performed in each job and set forth the knowledge and skills needed for these jobs. A computer data base contains this information, and utilities use it to help ensure that their curricula cover the necessary topics.

Training and qualification guidelines: Using input from the industry, as well as analysis of jobs and tasks in key nuclear plant positions, INPO has developed 17 guidelines. These guidelines describe the specific components needed for the training and qualification of personnel in nuclear power plant positions.

Workshops and seminars: INPO sponsors special workshops and seminars for utility training personnel to assist them in developing their own training systems.

Nuclear plant evaluations: INPO evaluates each nuclear plant in the United States on a regular basis. On every INPO plant evaluation, both the conduct of training and the results of training—how personnel perform their jobs—are examined. By focusing on how workers actually apply knowledge and skills in the plant, these evaluations provide INPO and the executive director of the academy with independent feedback on the quality of training and the quality of the graduates from accredited training programs.

Training is a vital part of the industry's overall effort to improve plant operations

Individual nuclear utilities are dedicating substantial manpower and other resources to upgrade training. This is leading to accreditation and full membership status in the National Academy for Nuclear Training. These utility efforts constitute an industry-wide, self-initiated, self-improvement program.

The impetus behind these efforts is a realization that training is a key to achieving high standards of nuclear plant safety and reliability.

The nuclear utility industry has made strong commitments to accreditation and the National Academy for Nuclear Training. This industrywide commitment to excellence in training is a national accomplishment.

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