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 MARTIN,J.B. Region 5, Ofc of the Director

SUBJECT: Confirms 890818 discussion re training programs,per Murley request.

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**WILLIAM F. CONWAY**  
EXECUTIVE VICE PRESIDENT  
NUCLEAR

102-01404-WFC/TDS/PJC  
September 11, 1989

Mr. John B. Martin, Regional Administrator  
U. S. Nuclear Regulatory Commission  
1450 Maria Lane, Suite 210  
Walnut Creek, CA 94596-5368

Dear Sir:

Subject: Palo Verde Nuclear Generating Station (PVNGS)  
Units 1, 2, and 3  
Docket No. STN 50-528 (License No. NPF-41)  
STN 50-529 (License No. NPF-51)  
STN 50-530 (License No. NPF-74)  
PVNGS Training Program  
File: 89-001-762

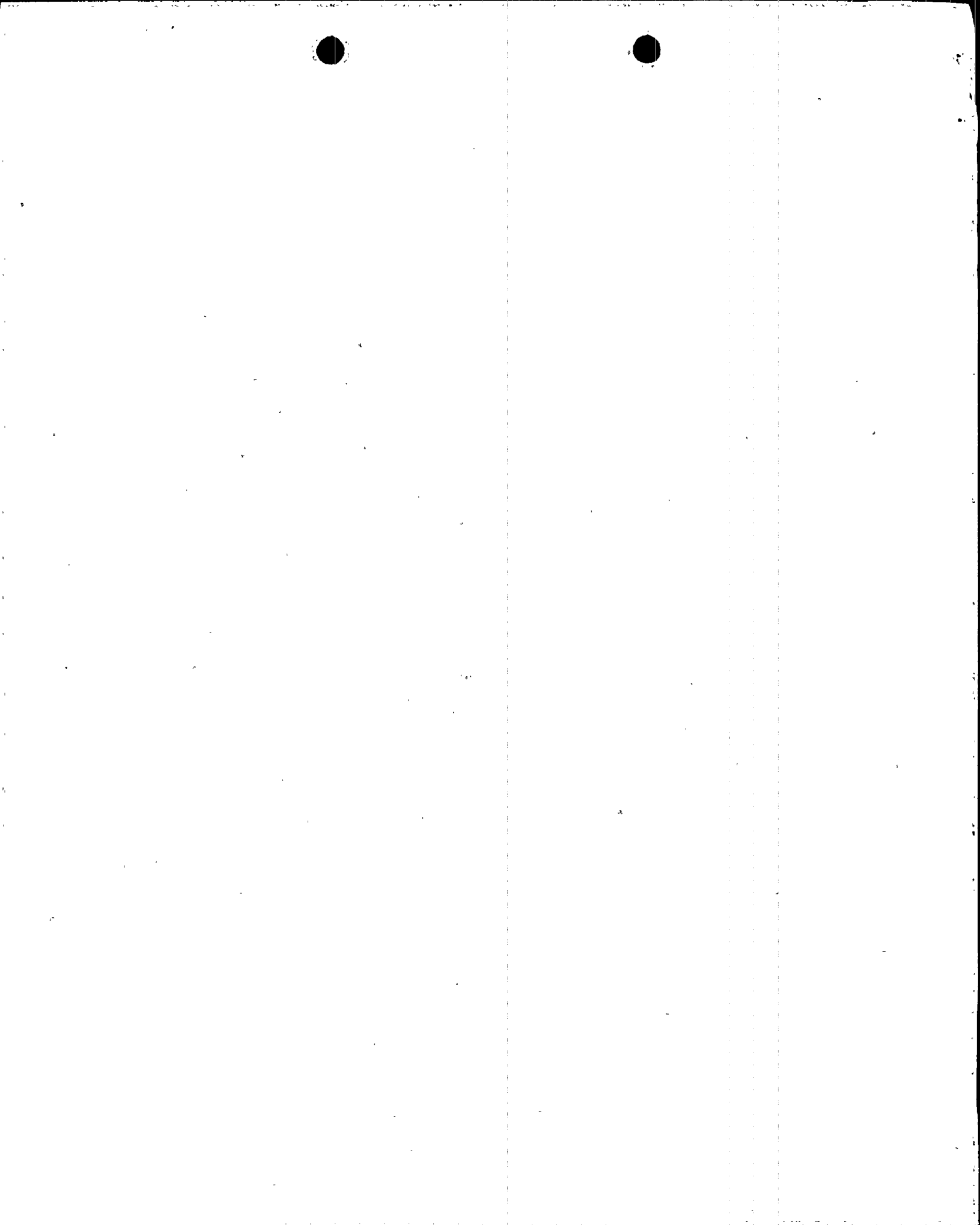
In June 1989, the National Nuclear Accrediting Board expressed concerns with the Palo Verde Nuclear Generating Station's training programs and placed nine of the ten accredited trained programs on probation allowing APS 120 days to resolve their concerns. Members of my staff and I discussed the Board's concerns and APS' corrective actions with you during our meeting of August 18, 1989. At Dr. Murley's request, this letter confirms that discussion.

The Accrediting Board had several primary concerns:

- Management needs to strengthen its commitment to and control of training programs, so problems are identified and corrected.
- Continuing Training attendance needs to be assured for all programs with the exception of licensed operator and radiation protection which are not areas of concern. Industry events need to be incorporated in both initial and continuing training programs.
- The chemistry technician training program needs to be more effectively implemented. This program was specified as needing particular attention based upon weaknesses in the initial training program, sequencing of on-the-job training, and attendance at continuing training. The central concern related to initial training was whether the Chemistry Initial Training Program provides adequate fundamental knowledge to support

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on-the-job training. When the program was initially accredited, a commitment was made to hire only ANSI/ANS 3.1-qualified technicians and to administer a hiring exam test that verified fundamental knowledge. In addition, only senior and lead technicians were to be assigned responsibility for problem analysis/resolution. These program commitments were not in all cases fully implemented which led to a potential gap in the knowledge a trainee possessed prior to participation in on-the-job training (OJT) program. The OJT program contained the task verification necessary to qualify a chemistry technician; however, there was no required sequence established for training or performance verification. This raised the concern regarding sequencing of the OJT program. Chemistry is the only area in which on-the-job training was called into question.

- The overall training program evaluation process needs strengthening to ensure that weaknesses are identified and corrected in a timely manner. This concern was not directed at course or instructor evaluations which have been an integral part of the training process.
- Simulator fidelity discrepancies were also identified as a concern; however, a commitment has been made to address that issue in separate correspondence by October 1, 1989.

#### Action Plans

During the latter part of 1988 and the first quarter of 1989, prior to the Accrediting Board's probationary action, several internal and external evaluations including the INPO Plant Evaluation in February 1989 raised concerns about Palo Verde's training programs. As a result, in April, 1989, APS Chief Executive Officer, O. M. DeMichele and Executive Vice President, D. B. Karner directed the establishment of a dedicated Training Action Team to formulate corrective actions and coordinate their implementation.

The Training Action Team analyzed the 1988 and 1989 evaluations and identified actions necessary to correct the deficiencies in implementation of the originally accredited programs and to address specific concerns with individual programs such as Chemistry technician training. The Team provides Senior management with weekly status reports in which any overdue items are explained.

When the accredited training programs were placed on probation, all actions in progress to correct the already identified weaknesses took on a heightened sense of urgency. The Executive Vice President granted approval to obtain additional resources including a sole source contract for vendor assistance in upgrading all training programs. In July a PVNGS Assistant Plant Manager was assigned on an interim basis to manage the Training Action Team and ensure that adequate controls and priority are placed on completion of the action plans.

The corrective actions to resolve the primary concerns identified by the National Nuclear Accrediting Board and to remove PVNGS' accredited training



programs from probation will be completed by October 20, 1989. The actions to correct any remaining weaknesses will be completed by March 1990. The corrective action programs developed to address each specific area are discussed in the following sections.

#### Management Control and Commitment

- Directives on Training Attendance

On March 31, 1989 the Executive Vice President issued a memo to PVNGS personnel emphasizing management's expectation that employees attend all scheduled training and recognizing that this may mean work delays.

New administrative control procedures were developed to explicitly define qualifications and training requirements.

- Resources

The training staff was increased by the addition of 22 contract labor positions and 26 permanent positions. The contract labor positions are scheduled to become permanent in 1991. New classroom and instructor facilities are also being added.

Eight (8) new positions for in-plant training coordinators were approved. These are senior, plant-experienced individuals who will report to line management and coordinate on-the-job training and scheduling activities. These positions are currently being filled.

<u>Discipline</u>	<u>Number Positions</u>
Operations	1 per unit
Mechanical	1
Electrical	1
I&C	1
Chemistry	1
Radiation Protection	1

A multi-million dollar contract for vendor support to assist in the development of course materials has been awarded.

- Line Management/Supervisor Briefings

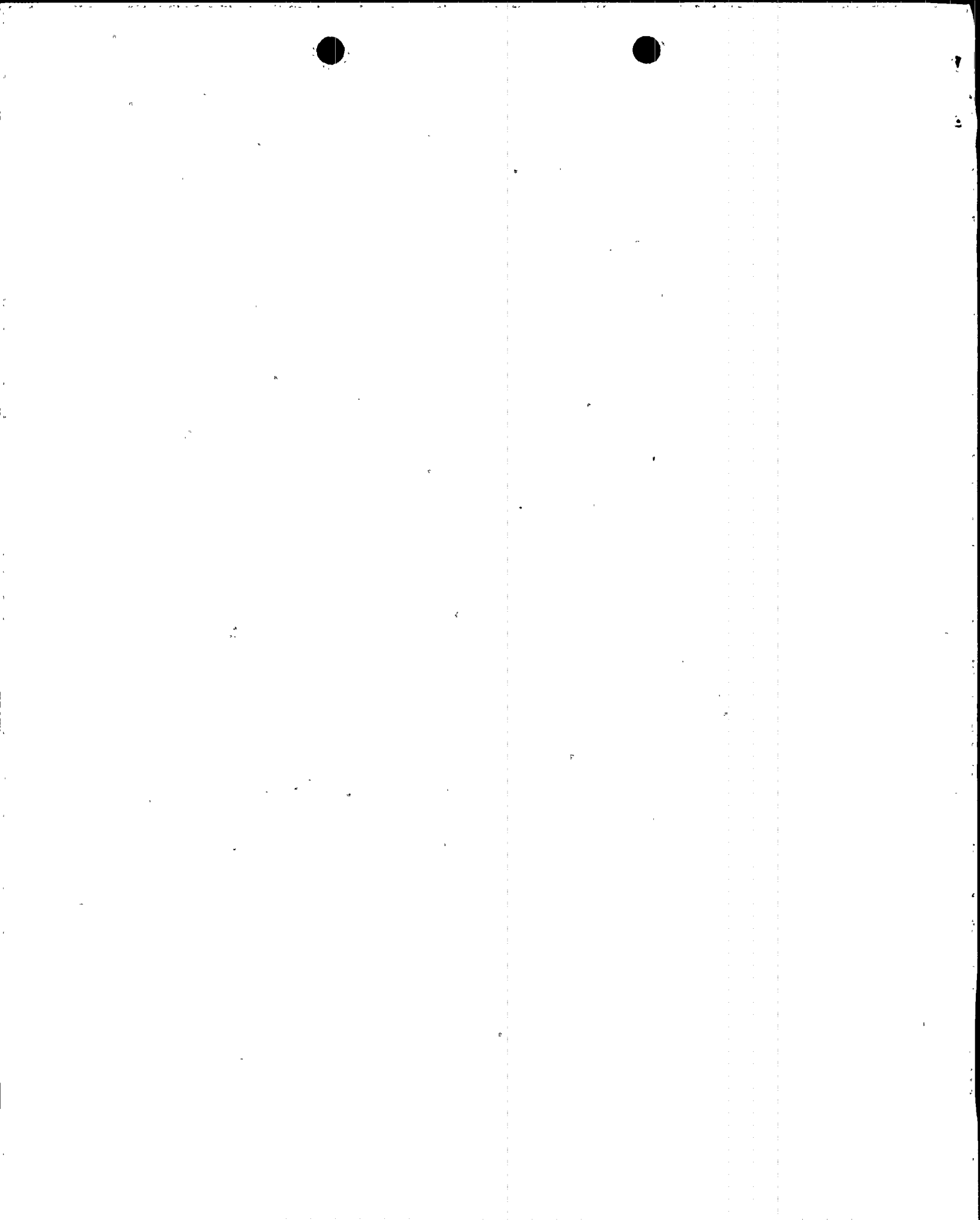
Three series of briefings have been conducted to ensure line management and supervision understand the requirements of the accredited training programs and the new administrative procedures on training and qualification. This effort has improved line supervision's ability to take ownership of their training program.





- Training Department Reports to Vice President, Nuclear Production  
From November 1987 to July 1989, the Training Department reported through the Director of Site Services to the Executive Vice President. Effective July 10, 1989, the Training Department reports to the Vice President, Nuclear Production.
- Training Advisory Board  
A Training Advisory Board comprised of plant directors and unit managers has been established to
  - Supplement interactions between the Training Department and the user organizations to ensure that projected priorities and training programs will meet long range needs.
  - Provide advice, guidance, and recommendations to the Training Manager and the Vice President, Nuclear Production.
  - Provide integrated overall evaluation of the adequacy and effectiveness of the Training Program and Training facilities.
- Single Point of Contact  
In late October, 1987, a reorganization of site management was implemented pursuant to which a plant manager position with five management positions reporting to it was established in each unit. A Director was appointed to maintain each of the support group functions.  
  
Interacting with each of the managers and directors who had responsibility for a training program under the reorganization has been difficult and obtaining approval for changes to training programs was time consuming. To improve the process for program revision and training material review and approval, a single point of contact has been established for each major discipline.

<u>Program</u>	<u>Point of Contact</u>
Mechanical Maintenance	Unit 2 Maintenance Manager
Electrical Maintenance	Unit 1 Maintenance Manager
I&C Maintenance	Unit 3 Maintenance Manager
Operations	Unit 2 Operations Manager
Chemistry	Unit 3 Chemistry Manager
Radiation Protection	RP/Chemistry Standards Manager
STA	STA Supervisor



- Project Management Teams

To ensure that short-term control of corrective action activities is maintained, the following project management teams have been established:

- The Training Action Team develops action plans to correct deficiencies in training programs, then, monitors and tracks the action items to completion.
- The Simulator Fidelity Upgrade Team manages the effort to correct simulator fidelity deficiencies and to obtain certification.
- The Administrative Procedure Development Team is developing and implementing an integrated set of administrative procedures that define and control the training and qualification of PVNGS personnel.

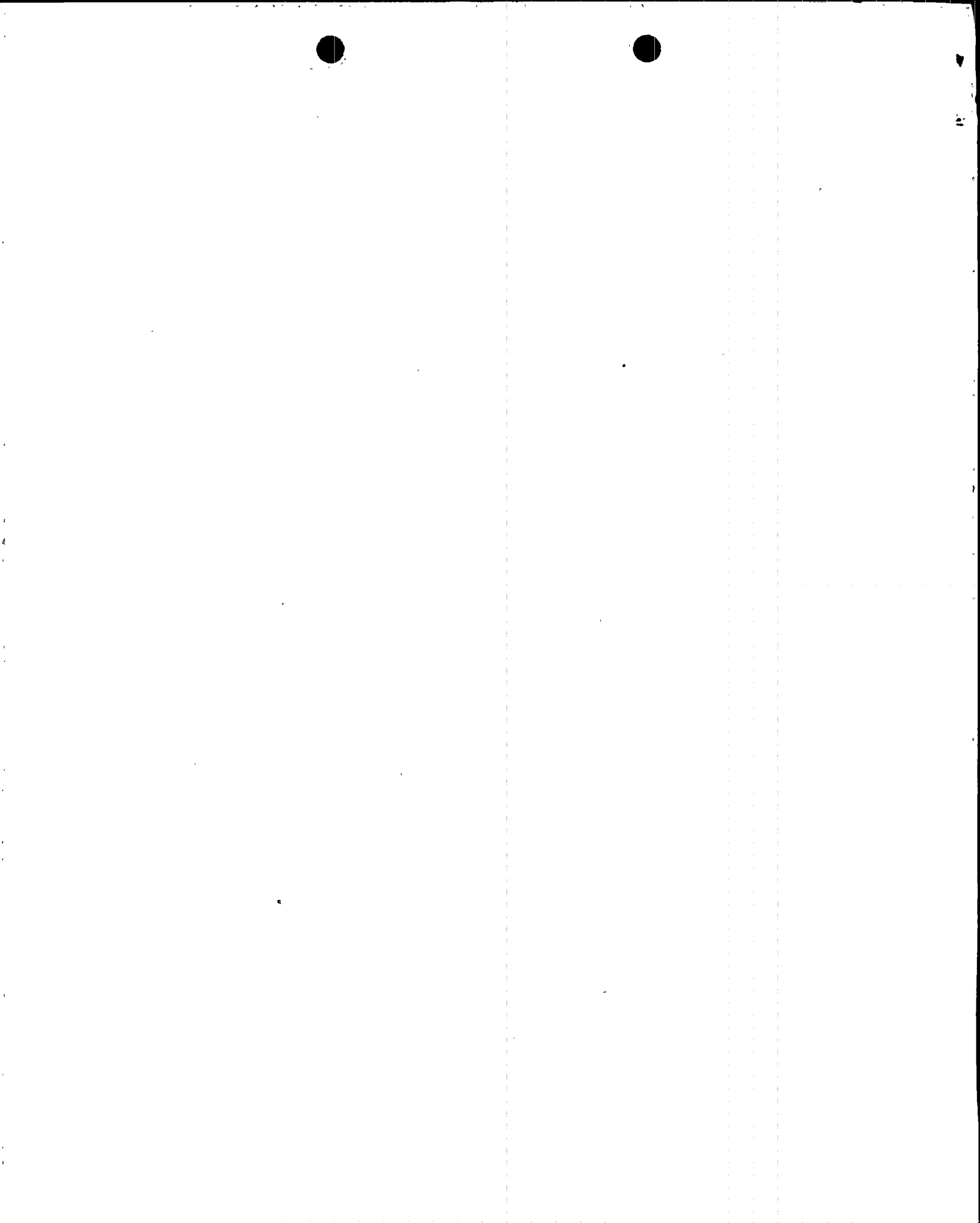
Continuing Training

- Upgrade/Development of Program Materials

INPO observed that some of the courses listed in the Training Program Descriptions (TPD's) were not developed. This situation was due to inaccurate TPD's that had not been revised to reflect evolving program needs and/or incomplete implementation of all Continuing Training requirements based upon a two-year training cycle.

A large amount of initial training was being conducted as part of Continuing Training for job incumbents. The training staff was also conducting additional training on topics requested by unit management. Because the training programs were still in their initial two-year cycle and Continuing Training time was committed to those additional topics, the development of certain courses was deferred. Current efforts involve reassessing Initial and Continuing Training program needs, developing the necessary courses with vendor support, and implementing the training.

- Greater Than Or Equal To 80 Hours of Continuing Training Per Discipline  
Training Program Descriptions (TPD's) did not specify minimum training-time requirements for Continuing Training. As an interim measure, a directive was issued requiring 80 hours of Continuing Training during 1989 for each discipline job incumbent with the exception of Technical staff for whom the requirement was 64 hours. As part of the training program reevaluations that are underway, minimum time requirements for the programs will be established and incorporated into the TPD's.



The 80-hour criterion has been surpassed for discipline personnel who have been in shift rotations that allow for training attendance on a routine basis. For example, licensed operators attend Continuing Training for more than 200 hours per year with a minimum of 60 hours training on the simulator.

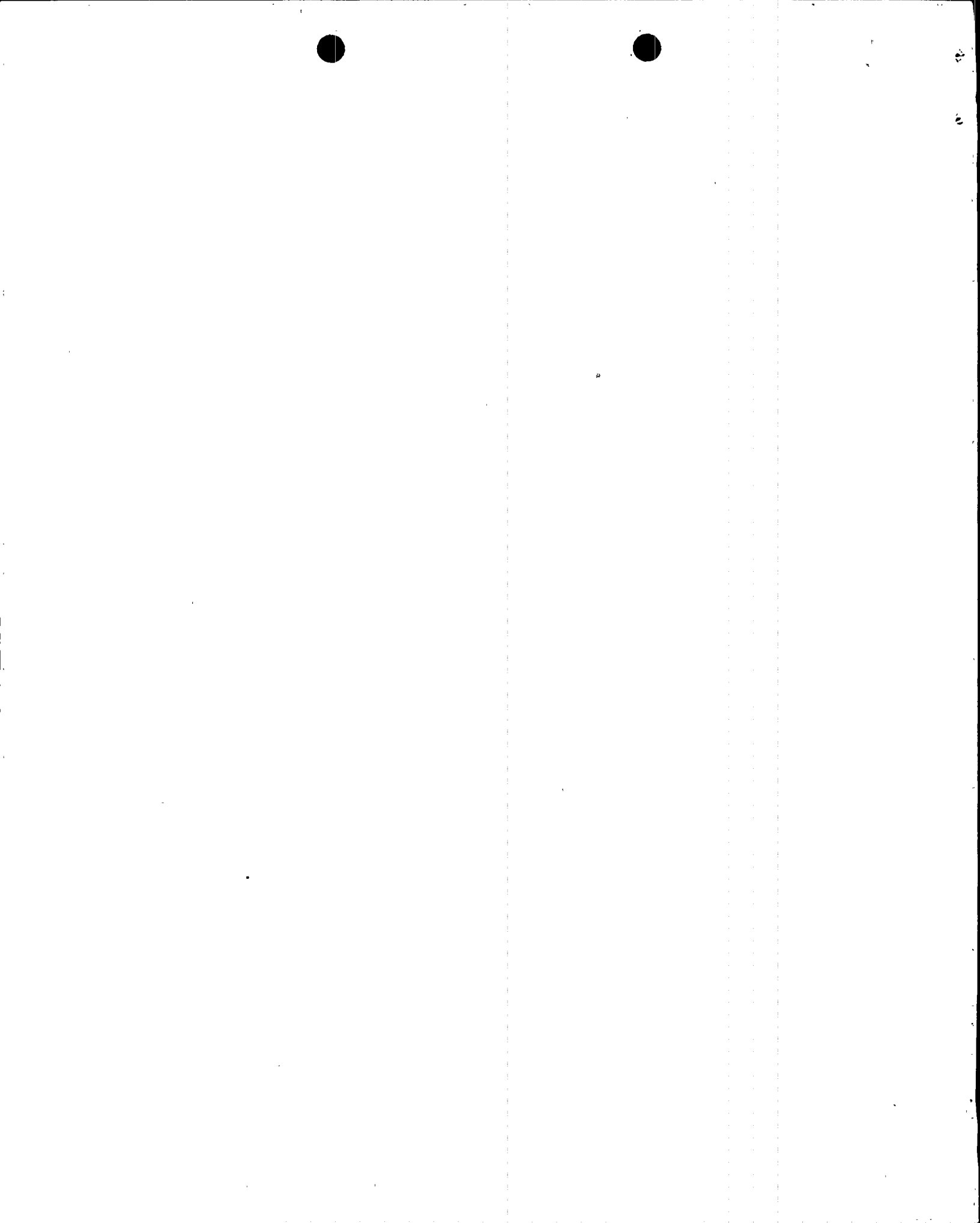
- Directives on Training Attendance/Training Attendance Reports  
As discussed previously, training attendance is being emphasized by the Executive Vice President. To assist senior management in ensuring their expectations for training attendance are met, modifications have been made to the process for tracking and reporting training program attendance. A monthly attendance report is submitted to the Executive Vice President, Plant Managers, and directors. A more detailed report is submitted to line supervision also on a monthly basis.

#### Training on Industry Events

Training on industry events, plant modifications, and unit events is now a formal requirement of the Continuing Training programs. These topics are presented in each program at least quarterly. Recommended training from Significant Operating Experience Reports (SOER's) is also included in Continuing Training and, in addition, is evaluated and included in Initial Training as appropriate.

#### Chemistry Technician Training Program

- Training Augmented with Plant Chemistry Technicians  
Three Unit Chemistry Technicians were assigned to Training full-time to augment the training staff and work on program analysis and design.
- Strong Unit Chemistry Management Involvement in Training Program Upgrades  
In addition to assigning technicians to the Training organization, the Unit Chemistry Managers have met periodically throughout the program upgrade process with the training development personnel to review and approve program changes. Since July, these meetings have occurred on a weekly basis.
- Contractor Support in Development of Training Material  
Six on-site contractors are working to develop Fundamental Chemistry classroom materials; analyze, design, and develop an improved OJT program, and develop laboratory training guides.
- Increased Initial Classroom Training Prior to OJT  
A classroom Fundamentals training program will be added to the initial training program. This sequence of courses is intended to provide the requisite knowledge and skill identified by INPO's chemistry technician training guidelines to an individual who does not meet the definition of an ANSI-qualified technician.



Personnel who are hired as ANSI-qualified technicians will be tested against the knowledge and skills identified for this phase. Completion of this sequence is a prerequisite to beginning on-the-job training.

- Improved OJT Training Materials

The OJT tasks have been grouped by duty area. Trainees will be assigned to complete all the requirements within one duty area prior to being assigned to qualify in another area. Each duty area is structured so as to identify prerequisite knowledge requirements including classroom training beyond the initial fundamental training. A revised qualification verification document called a job performance measure is being added for each task in order to further structure the OJT process.

Because of the concerns as to whether or not the current training program provides adequately qualified technicians, Unit Chemistry Managers assessed each of their technicians against the qualification requirements. The results indicated that the incumbent technicians were adequately qualified to perform their duties.

Program Evaluation

- Training Advisory Board Established.

As stated in the Management Control section, a Training Advisory Board comprised of senior management has been established to provide an oversight and advisory function for training. The Board reviews training-related issues, and each year will direct that an in-depth evaluation be conducted of one or more training programs. The results of these evaluations will be presented to the Board, and recommendations for corrective actions will be made to the Vice President, Nuclear Production.

- Policy Direction to Training Manager

The Training Manager has been given policy direction to maintain oversight of training and qualification and to keep senior management informed. As an example of this, attendance and qualification reports are now prepared and issued on a routine basis.

- Quality Assurance Involvement

The Quality Assurance organization has taken an increased role in program evaluation. In addition to their annual assessment of training, they are now performing special assessments of various aspects of the training process and program implementation. The recently implemented escalation process ensures that senior management is informed of unresolved problems.





- Policy and Program Procedures.  
Finally, new administrative procedures that clearly define responsibilities and training and qualification requirements provide a well-defined baseline for evaluating program weaknesses.

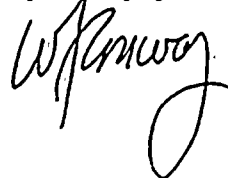
Conclusion

The accredited training programs were placed on probation due to certain identified weaknesses. However, these weaknesses had not degraded the programs to the point that accreditation was withdrawn and many weaknesses have already been corrected.

In conclusion, I am confident that the training programs now being implemented at PVNGS comply with regulatory requirements. This is based on the fact that the programs remain fully accredited and thereby furnish training which provides reasonable assurance with respect to protection of the public health and safety. I am confident that the actions described in the preceeding paragraphs will ensure that the PVNGS training programs will remain accredited.

Should you have any questions, please contact Timothy Shriver at (602) 393-2521.

Very truly yours,



WFC/TDS/PJC/kj



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