EVALUATION

OF

DRESDEN NUCLEAR POWER STATION

Commonwealth Edison Company

REPORT NO. EA 80-01
September 12, 1980

INPO INSTITUTE OF NUCLEAR POWER OPERATIONS

8009260468

SUMMARY

PURPOSE AND SCOPE

An Institute of Nuclear Power Operations (INPO) evaluation team visited Commonwealth Edison Company's (C. E. Co.) Dresden Nuclear Power Station at Morris, Illinois, during the weeks of May 5 and 12, 1980. Its purpose was to conduct an overall evaluation of site activities. To make this determination selected station activities were examined in light of preliminary INPO evaluation criteria. Discussions, interviews, observations, and reviews of policies and instructions were carried out by INPO in the course of this evaluation. Corporate activities were not included in the scope of this evaluation.

Areas examined included station organization and administration, training and qualification, operations, maintenance, and on-site technical support. Evaluation of performance in these areas was directed toward objectives of overall excellence rather than at minimum acceptable standards. Therefore, recommendations made in this report are based upon evaluation of performance excellence within the scope of the areas covered by the evaluation and are not necessarily limited to safety concerns.

DETERMINATION

Much of this report will deal with identified areas of concern. However, to present a balance of perspective, the following positive aspects are noted.

Within the scope of this evaluation, the team determined that the plant is being safely operated by an experienced, capable, and dedicated staff. During the visit, evaluations were performed in twenty-six individual areas as listed in the Administrative Appendix of this report. The team concluded that the Dresden Station met a vast majority of INPO's preliminary criteria of performance excellence. In fact, others will learn from your excellent practices in areas such as:

* Total Job Management Program which improves the control and efficiency of maintenance activities.
* Walk-through of procedure changes prior to implementation.
* Evidence of a program of management by objectives for achieving operating goals.

However, opportunities for improvement were noted regarding:

1. Management practices involving clearly defined individual responsibilities and authorities.
2. Management practices involving adherence to administrative type procedures and industrial safety policies.
3. Effectiveness of training activities.
4. Effectiveness of administrative controls on instrument setpoints.
5. Effectiveness of maintenance, surveillance, and records programs.

While specifics of these areas are discussed in accompanying Details, an overall review by the evaluation team has identified two basic concerns:

* The first is that many of the findings show a need for strengthened management control systems through adequate and clearly written definitions of lines of authority and responsibilities, and through additional written policies and procedures.

* The second concern is that a number of findings indicate the need for more management attention and vigor in insuring adherence to existing administrative policies and procedures.

In reviewing the findings and recommendations presented, consideration should be given to possible generic significance. Corrective measures should be developed as appropriate to provide broad rather than narrow specific example correction. Recommendations are intended to assist C. E. Co. management in attaining the highest standards in its nuclear operations.

Specifics of evaluations are in the accompanying DETAILS, and information of an administrative nature is in the ADMINISTRATIVE APPENDIX.

Initial findings were reported to C. E. Co. personnel during the evaluation process, and in summary form at an exit meeting at the Dresden Station on May 16, 1980. Further discussion of findings, recommendations, and C. E. Co. responses was conducted in a meeting at the Dresden Station on July 8, 1980. The responses of C. E. Co. to the INPO recommendations have been reviewed and are considered appropriate to effect the desired changes. As a means of following the timely completion of C. E. Co. response actions, INPO requests a letter from the C. E. Co. Corporate office at frequencies appropriate to the key target dates C. E. Co. has established.

The evaluation staff appreciates the excellent cooperation received from all levels of the Commonwealth Edison Company.

E. P. Wilkinson
E. P. WILKINSON
President

Commonwealth Edison Company

Response Summary

"The following is in response to the recommendations and comments expressed in the Determination section of the INPO report on the management evaluation of Dresden Station.

We believe that the recommendations offered in the management evaluation report will significantly improve the management and operation of Dresden Station; therefore, we are committed to their timely implementation. Additionally, many of the recommendations apply to our other operating stations and stations under construction and we can assure you that they will be implemented.

We would like to address the two basic overall concerns expressed in the Determination section. The first concern relates to the assertion that many findings show the need for strengthened management control systems through adequate and clearly written definitions of lines of authority and responsibilities and through additional written policies and procedures. As we stated in our response to the findings, it had been our past policy not to use position descriptions because it was felt they could act to hamper personnel capabilities and narrow a person's scope of activities. However, we have committed to the implementation of all recommendations because they will improve our management control systems.

The second concern was that a number of findings indicate the need for more management attention and vigor in insuring adherence to existing administrative policies and procedures. Here again, we agree with the recommendations in this area and will review our present administrative policies and procedures and make necessary corrections. We will then adopt controls to vigorously enforce all administrative policies and procedures.

We have set specific dates for the implementation of the recommendations found in your management evaluation. We will report our progress to you on October 15 and December 15, 1980, and then quarterly until all recommendations are fully implemented."

DETAILS

Category I items relate to criteria in INPO evaluation procedures. Category II items, which are included in a few specific cases, relate to criteria that have not yet been included in INPO procedures but which are generally recognized as desirable and accepted techniques of industry and management. All findings listed are category I, except findings "K" and "R" which are category II.

ORGANIZATION AND ADMINISTRATION

A. Organization Structure

Criterion A of INPO procedure OA-102 Rev 1 states that clear lines of responsibility and authority should be defined in writing for all levels of plant management.

Finding

Lines of responsibility for each level of plant management were not clear and specific. This appears to be the result of company policy aimed at maximizing organizational flexibility; however, this policy is not advantageous in such a complex, highly technical, and demanding work environment.

Recommendation

Clear lines of responsibility and authority, consistent with facility organizational structure, should be written. Position descriptions should be developed and should be used as the basis from which more complete descriptions of responsibility and authority would be provided in administrative procedures.

C. E. Co. Response

"We concur with your recommendation.

We had previously believed that position descriptions tended to hamper personnel capabilities and

narrow a person's scope of activities. However, some specific management responsibilities are set forth in the Quality Assurance Manual and Total Job Management (TJM) Manual for those managers responsible for implementation of the Quality Assurance and TJM Programs. Also, certain managers' responsibilities and authorities are set forth in the Company's General Procedures, Vice-Presidential Orders, and Division Managers' Directives. This information, along with the Company's key objectives, will be used as the basis to develop position description documents. This task is scheduled for completion by October 1, 1980.

These documents will be actively used in the management and administration of the station. All affected personnel will be familiarized with their respective position descriptions by December 1, 1980."

B. Organization Structure

Criterion B of INPO procedure OA-102 Rev 1 states that the span of control for plant management positions should not be excessive.

Finding

The current organization chart shows 16 foremen and 4 planners reporting to the Master Mechanic. It is considered difficult for one individual to provide optimum supervision and technical guidance to this number of people in such a complex operation.

Recommendation

It is recommended that the existing span of control for the Master Mechanic be reduced.

C. E. Co. Response

"We concur with your recommendation. We will develop an organizational structure that will reduce the span of control of the Master Mechanic. This structure will be applied to all of our nuclear stations. The revised organizational structure will be developed by October 1, 1980, and implemented with required personnel changes by January 1, 1981."

C. Administrative Controls

Criterion E of INPO procedure OA-103 Rev 1 states that administrative controls should be disseminated to appropriate personnel and adherence should be required.

Finding

Compliance with Dresden Administrative Procedures (DAP) was incomplete in the areas of plant cleanliness, orderly maintenance of work areas, and wearing of hard hats. DAP 7-12 housekeeping requirements are not always complied with. DAP 1-5, prescribing wearing of hard hats, is not always complied with. DAP 1-5, regarding daily cleaning of work areas, is not always complied with. These activities are stipulated in procedures disseminated to appropriate personnel, however, full adherence is not apparent.

Recommendation

C. E. Co. should conduct a review or audit to determine all areas where policy and procedure adherence is not being achieved. Where weaknesses are discovered, management action should be initiated to correct.

C. E. Co. Response

"Dresden will conduct a review of these Administrative Procedures and revise DAP 7-12, 1-5, and other associated Administrative Procedures to appropriately address the adherence to procedures. These revisions will include statements of accountability and requirements for periodic surveillances to identify areas where procedures are not being adhered to. Where weaknesses are discovered, management action will be initiated to correct those weaknesses.

Revisions to the Administrative Procedures will be completed by October 1, 1980, and the initial

training of personnel named to be accountable in these Administrative Procedures will be completed by December 1, 1980. Annual retraining regarding the Administrative Procedures will be reinforced."

D. Industrial Personnel Safety

Criterion B of INPO procedure OA-106 Rev 1 states that the attitude of supervision toward safety should be that safety is of utmost importance and is supportive of the total safety program.

Finding

Management support regarding emphasis and enforcement of industrial safety rules is inadequate. This is evidenced by inconsistent adherence to rules regarding the wearing of hard hats, and work area cleanliness.

Recommendation

There should be increased management support of and attention to enforcement of industrial personnel safety rules and practices.

C. E. Co. Response

"The current Company safety manual is ambiguous regarding the wearing of hard hats in nuclear plants. This policy will be clarified and issued by October 1, 1980. Station documents, such as the Administrative Procedures, New Employee Handbook, and policy statements will be revised by January 1, 1981, to reflect the clarified policy.

Station management, in cooperation with Industrial Relations, will make every effort to back up department supervision on enforcement matters."

TRAINING AND QUALIFICATION

E. Personnel Qualification

Criterion A of INPO procedure TQ-201 Rev 1 states that utility management should formulate position descriptions based on job analyses for each position on the plant staff and selected corporate staff positions.

Finding

Most management and supervisory positions do not have position descriptions. Where position description elements do exist they are limited in description of job functions, responsibilities, authorities, accountabilities, and qualification requirements. As such their effectiveness for hiring, training, personnel evaluation, and promotion considerations is questionable.

Recommendation

Position descriptions should be developed based upon a job analysis for each position in the plant. Policies and practices should be implemented which utilize position descriptions as a management tool to hire, train, evaluate performance of, and promote individuals in each position.

C. E. Co. Response

"We concur with your recommendation. As stated in the response to Finding A, position descriptions will be developed by October 1, 1980 based on information currently set forth in the Company's General Procedures and the Company's key objectives. Task analyses are currently being performed for the plant operating positions so that training programs can be reviewed and improved. Task analyses will be performed for management positions as necessary and for other station positions

after the plant operating positions have been completed. We will review our position descriptions against the task analyses and will make any necessary changes to our position descriptions by January, 1982."

F. Training Organization and Management

Criterion B of INPO procedure TQ-211 Rev 1 states that an adequate number of qualified personnel should be available to conduct the required training activities.

Finding

Adequate resources are not available to conduct training for the maintenance, radiochemistry, and technical staff departments. Administrative procedures assign the conduct of department job specific site training to each department head. The existing organization structure provides limited resources for this task. Training in these areas suffers a loss of priority to more immediate departmental needs which are necessary to support unit operations.

Recommendation

The Training Department and/or associated departments should reassign their training responsibilities to establish an adequate number of qualified personnel to conduct training in the maintenance, radiochemistry, and technical staff departments.

C. E. Co. Response

"The solution to this problem requires both short and long term actions.

In the short term, the Company will establish formal responsibilities within station departments to meet training needs. A plan for accomplishing this including the identification of adequate numbers of qualified personnel to conduct training in Maintenance, Radiological Control/Chemistry, and Technical Staff areas will be developed by October 1, 1980. Staffing in accordance with this plan will begin by January 1, 1981.

In the long term, our reorganized Production Training Department staff at our new Production Training Center (scheduled for operation in late 1982) will have responsibility for the review and development of all training programs. Standardized training programs, including those for Radiological Control/Chemistry Technicians and Technical Staff personnel, will be developed over a two-year period commencing in January, 1981. The standardized programs to be developed will include the generic programs to be taught at the Production Training Center and the site specific programs for the stations.

During this two-year period, we will also review and make necessary improvements to our standard maintenance programs currently taught at our Shorewood Maintenance Training Center, which will also be incorporated into the Production Training Center. Requirements for site specific maintenance training will also be developed."

G. Training Organization & Management

Criterion A of INPO Procedure TQ-211 Rev 1 states that responsibility and authority for the various functions involved in providing nuclear power plant training should be clearly described and should be assigned to appropriate individuals in writing.

Criterion D of INPO Procedure TQ-211 Rev 1 states that a written training plan and the associated procedures should describe in sufficient detail the various types of training and the training programs which are conducted for plant personnel.

Finding

The cognizant supervisor for writing and revising Dresden Personnel Procedures (DPP's) pertaining to training is the Training Supervisor, who has limited responsibility and no authority for the implementation of the training in these procedures.

Certain DPP's are written in a manner that does not closely prescribe which groups receive which specific segments of training at what point in their job progression. This is particularly evident in DPP's associated with the radiochemistry, maintenance, and technical staff departments.

Recommendation

The responsibility for developing these training DPP's should be with the department head who has the authority to implement them.

DPP's on training should be rewritten so that they clearly establish specific training requirements. In conjunction with recommendation F, these DPP's should provide more specific management policy and requirements. The most immediate need for this improvement appears to be in the maintenance, radiochemistry, and technical staff departments.

C. E. Co. Response

"We concur that authority consistent with the responsibility to implement programs should be clarified. This will be accomplished with the implementation of our response to items A, E, and F.

Those Dresden Personnel Procedures (DPP's) concerned with the maintenance, radiochemistry and technical staff departments will be reviewed to clearly establish specific training requirements. This will be completed by October 1, 1980. A review of the other department DPP's will follow the same criteria and will be completed by January 1, 1981."

H. Training Effectiveness

Criterion A of INPO procedure TQ-231 Rev 1 states that the effectiveness of all training programs should be evaluated regularly by plant management and these evaluations should be conducted in accordance with written procedures.

Finding

Station procedures do not adequately address management's evaluation of the effectiveness of training programs. The supervisors responsible for such evaluations do not have a definitive evaluation plan, nor are there written procedures for this.

Recommendation

Plant management should develop and implement written procedures for timely and pertinent evaluation of training program effectiveness.

C. E. Co. Response

"Presently, training programs and needs are evaluated continuously through informal discussions with Station Department Heads and the Station Superintendent; evaluations are performed by the following: internal and external audits; students' evaluations of programs; supervisors' evaluations of students' performance; and written, oral and performance examinations administered by the station, vendors, and the NRC.

The responsibilities of one of the departments of the new Production Training Center organization will include the evaluation of training programs and training program instructions. Commencing early in 1981, this group will develop and the Company will implement by the end of 1981 formal procedures requiring periodic evaluation of the

effectiveness of training programs and training program instructions by station, company management and training organization personnel. Such procedures will include the use of specific plans for objectively evaluating and measuring various facets of the training program and indoctrination in the use of these plans for all personnel conducting such evaluations. Existing station procedures concerning evaluations of training program effectiveness will be revised to reflect the new procedures when developed."

I. Licensed Operator Requalification Program

Criterion H of INPO procedure TQ-244 Rev 1 states that personnel without recent operational experience should be evaluated and retrained as necessary prior to performing licensed duties.

Finding

"A" operators without recent licensed operational experience are not evaluated and retrained as necessary prior to performing licensed duties.

Recommendation

Formal methods should be developed and implemented to evaluate licensed "A" operators and retrain if necessary prior to assuming licensed duties.

C. E. Co. Response

"Licensed operators not normally assigned to license duties (i.e. licensed Equipment Operators) are addressed in the NRC Approved Licensed Operator Requalification Program:

> "The licensee shall maintain license eligibility by participation in and satisfactory completion of the requalification program."
> (Page 7, section VI)

Before these operators are reassigned sole responsibility for the control panels, it has been the station's policy that each would have at least a two week refresher period on the panels with another regularly assigned operator.

The station recognizes this unique concern however, and will add to this program a documented oral examination

administered by either the Training Department or the Operating Department.

In addition, the program will be formalized by development of a Dresden Personnel Procedure listing the above sequence as a requirement by October 1, 1980."

OPERATIONS

J. Conduct of Shift Operations

Criterion B of INPO procedure OP-301 Rev 1 states that cleanliness and order should prevail.

Finding

The general level of plant cleanliness and order, along with specific problems in the radwaste control area, indicate insufficient management attention to these areas of plant operations. Employees do not appear to recognize their responsibilities for cleaning their work areas. Operator discipline is less than desirable in the radwaste control area. (See also Finding C)

Recommendation

Management should review existing procedures for adequacy in this regard, making pertinent changes where needed, and should implement effective management and supervisory effort to provide clean and orderly working conditions. Responsibility and authority for enforcement of requirements should be assigned. A specific review of operator discipline in the radwaste control area should be conducted, and improvements implemented.

C. E. Co. Response

"The management systems have been reviewed and as mentioned in the answer to finding C, specific Administrative Procedures will be revised as of October 1, 1980, with accountability statements to provide authority for enforcement.

Operator discipline in the Radwaste Control Area has been addressed by providing operating personnel a "rest" area near the control room."

K. Plant Status Controls

INPO procedure OP-305 Rev 1, a general criterion, requires an adequate depth of review of instrument setpoint changes.

Finding

Dresden Administrative Procedure (DAP) 11-11, concerning all instrument setpoint changes involving a trip, permissive, or alarm function, does not require a depth of technical review for these changes equivalent to that given to design modifications. Review is conducted by the Operations Department without requiring involvement of the Technical Department. This concern relates to balance of plant and not nuclear safety instruments.

Setpoints for nuclear safety instruments have received a technical review by an existing design change process.

Recommendation

Plant management should review procedure DAP 11-11 and incorporate engineering review for setpoint changes similar to that provided for design changes.

C. E. Co. Response

"Safety-related instrument setpoint changes have always received a technical review of adequate depth when the Dresden Instrument Surveillance Procedures were changed to incorporate the revised setpoint. Non-safety related changes have always received a technical review by an Operating Engineer.

To enhance our setpoint change review and to make the review more timely, DAP 11-11 has been changed so that instrument setpoint changes receive a technical review similar to that provided for design changes. Corporate office engineering department assistance is obtained when necessary.

After a safety evaluation is completed, the setpoint change must be approved by the Technical Staff Supervisor, Operating Engineer, and the Station Superintendent. Upon completion of the new setpoint change by the Master Instrument Mechanic, the new setpoint is documented in the Instrument Maintenance card file.

This procedure revision results in at least two technical reviews by three persons each for safety-related instrument setpoint changes, and at least one technical review by three people, instead of one person for non-safety related instruments."

MAINTENANCE

L. Maintenance Organization and Administration

Criterion A of INPO procedure MA-401 Rev 1 states that management should clearly define and structure a maintenance organization and provide adequate and qualified resources to perform the maintenance function.

Finding

The routine conduct of the maintenance organization does not follow the defined structure. Job assignments flow from the Master Mechanic to planners, and then to foremen. Planners are functioning as lead foremen.

Recommendation

Plant management should review organizational structures and make them consistent with supervision and work flow.

C. E. Co. Response

"See answer to Finding B."

M. Maintenance Organization and Administration

Criterion C of INPO procedure MA-401 Rev 1 states that qualification standards should be developed that define the qualifications for filling all maintenance department positions.

Finding

Qualifications have not been established for positions within the Maintenance Department.

Recommendation

Qualification procedures should be developed to permit specific training to be identified for those personnel who do not presently meet the required qualifications, and to ensure that qualifications of maintenance personnel are maintained on a continuing basis.

C. E. Co. Response

"Although Edison Procedures are not available, we have relied upon the guidance of ANSI N18.1 (1971) for all of our position placements. However, qualification requirement documents will be developed by October 1, 1980, for the Maintenance Department."

N. Maintenance Organization and Administration

Criterion D of INPO procedure MA-401 Rev 1 states that a formal management training program should be provided for supervisory as well as management personnel in the maintenance organization.

Finding

Training was found inadequate in areas of job specific supervisory training, ALARA concepts, recognition of aberrant behavior, and training for foremen regarding work techniques currently being taught their craft people.

Recommendation

Formal training programs in these areas should be developed and implemented to ensure optimum effectiveness of foremen and supervisors.

C. E. Co. Response

"The need for improved supervisory training was recognized several years ago and has been addressed by corporate Production Training through the development of a series of four management training programs. The first program in this series, the Supervisory Training Program, will be reviewed and revised as required by October 1, 1980 to include appropriate emphasis on the ALARA concept. In addition, by October 1, 1980, we will identify the materials available in industry dealing with the recognition of aberrant behavior and will revise our Supervisory Training Program to include training in these skills.

Currently, many of our supervisory personnel receive technical training through maintenance programs offered at Shorewood Maintenance Training

Center; through attendance at vendor operations/ maintenance seminars, programs, and workshops; and special simulator courses at the General Electric and Westinghouse Training Centers. Improved standard technical programs for supervisory personnel will be developed commencing in early 1981 as part of our training program review and program development efforts in preparation for shifting to our new Production Training Center in late 1982. These programs will include appropriate emphasis on the ALARA concept consistent with our response concerning the finding related to our current ALARA program."

O. Preventive Maintenance

Criteria A, B, C, D, E, and G of INPO procedure MA-402 Rev 1 state criteria for management and administration of preventive maintenance programs.

Finding

Although certain preventive maintenance is accomplished, there is not a formal integrated program to provide maximum benefits and the most effective coordination of resources in this area.

Recommendation

A formal, comprehensive preventive maintenance program should be developed and implemented. Special consideration should be directed at definition of responsibilities, basic servicing, inspection, calibration, testing, and specialized equipment requirements.

C. E. Co. Response

"Although we believe we have an active, effective preventive maintenance program in place at Dresden, we agree that we do not have a formal set of procedures that describes our program. Procedures will be written by October 1, 1980 and will include safety-related and key secondary plant equipment as required, and a method of revising the program based on the results."

P. Work Control Systems

Criterion A of INPO procedure MA-404 Rev 1 states that an approved procedure should exist which establishes administrative controls for identifying, controlling, and documenting mantenance and maintenance related activities.

Finding

Both the Total Job Management (TJM) program and the Quality Assurance (QA) manual appear to implement the work request system. The content of defined responsibilities, the work request review path, and job titles vary within these two documents. This has generated some user confusion regarding which document is controlling.

Recommendation

Review the content of TJM and QA manuals and establish a clearly defined work request process.

C. E. Co. Response

"The QA Manual is the single controlling procedure for our work control system. The Total Job Management (TJM) that was introduced at Dresden approximately a year ago does not conflict with or alter the work request system described in the QA Manual, but rather serves as an implementing document in the Maintenance Department. The TJM program is intended to increase the efficiency of the maintenance force through preplanning and coordination of activities and also to bring accountability and awareness of how we spend our maintenance dollar. Essentially, it is a volume written to define implementation of the Master Mechanic's responsibility in the QA Manual to "Assign the Work."

To clarify this arrangement, we will conduct tail-gate training with all maintenance foremen to make sure the distinctions between the QA and the TJM programs are understood."

Q. Maintenance History

Criterion D of INPO procedure MA-405 Rev 1 states that a method for periodic review and evaluation of equipment histories should be established.

Finding

There is not a formal method for periodically reviewing and evaluating maintenance history. Adequate source information exists and is retrievable.

Recommendation

A formal method of review and evaluation of equipment history should be established to detect abnormal equipment trends, to use in evaluation of equipment performance, and to detect additional needs for equipment maintenance, design, or replacement.

C. E. Co. Response

"Although maintenance history records have existed for years at Dresden, the format of those records has varied considerably until introduction of the Total Job Management (TJM) system a year ago. The TJM program standardized and provided a simple method to develop a maintenance history for each piece of equipment in the plant. The administrative procedure for the Maintenance Department will be revised to describe the equipment history program and assign responsibility for a semi-annual review and evaluation of the history files. This revision will be completed by October 1, 1980."

R. Control and Calibration of Test Equipment and Instrumentation

INPO procedure MA-406 Rev 1, a general criterion, requires that instrument setpoint data references be maintained current.

Finding

The Sargent & Lundy Instrument Calibration Data Book, which is one of the sources currently used as a reference for setpoint information, is not up-to-date. Some setpoint specifications have changed, and differ from data in the book being used.

Recommendation

A method should be developed to assure that only up-to-date instrument calibration and setpoint data is available and utilized by involved personnel. A single source is preferable to a multiple source system. Management should evaluate the need of conducting a review to determine that current balance of plant device setpoints are proper.

C. E. Co. Response

"Currently, calibration data and setpoints for license related instruments are controlled, identified, and located in the Dresden Instrument Surveillance Procedures. Similar data for most non-license instruments already exists in card file form.

However, it is agreed that a controlled single location for instrument calibration data and setpoints is desirable. After review of the alternatives, we intend to expand the existing card file to become the controlled source for this data.

Because several thousand instrument setpoints are involved in this overall file system, the upgrading of the card file will not be completed until 6-1-81.

We believe that the previous technical reviews by knowledgeable senior operating and instrument maintenance personnel are adequate to insure that current balance of plant instrument setpoints are proper. Future changes to the setpoints will receive the additional review discussed in our response to item "K" to provide further assurance that they are proper."

ALARA PROGRAM

Although a formal evaluation of the radiological control area was not conducted, and no final conclusions were reached, there were some concerns about the apparent lack of procedures and employee training in this area. ALARA does not appear to be actively pursued at the station. This seems to result from a lack of adequate written procedures to implement the existing company policy statement in this matter. It is recommended that this policy be implemented through adequate written procedures and training of personnel.

C. E. Co. Response

"Scientific Applications, Inc. was awarded a contract in May, 1980 to develop a formal ALARA program for Edison's Nuclear Stations. Work was started the first week in June by a three-man team from SAI.

The project is divided into four sections or blocks. The first part of the project is to evaluate the existing ALARA activities. Also, all of the groups involved with ALARA work are going to be interviewed in order to evaluate existing lines of communications.

The second part of the project will be the recommendation of one or more ALARA organizations. Edison management will decide what ALARA organization will be used. This organization will include communication pathways, flow of information pathways, and definition of job responsibility and authority. This part of the project will be completed by September, 1980.

Part three of the project is implementation of the program. This will involve procedure writing, some programming changes to our presently existing Radiation Evaluation Program and possibly some organizational changes. This section of the project should be completed

by December 31, 1980. The final phase of the project will be a test phase. ALARA project at two different stations will be used to test the new ALARA program. A formal training program will be prepared and administered to all departments and personnel who would be involved during the test phase."

ADMINISTRATIVE APPENDIX

I. LISTING OF AREAS EVALUATED

ORGANIZATION AND ADMINISTRATION - ON SITE

OA-101	Objectives
OA-102	Organization Structure
OA-103	Administrative Controls
OA-104	Quality Programs
OA-105	Information Programs
OA-106	Industrial Safety
OA-107	Surveillance Program

TRAINING AND QUALIFICATIONS

TQ-201	Personnel Qualifications
TQ-211	Training Organization & Management
TQ-221	Training Resources
TQ-231	Training Effectiveness
TQ-242	Non-Licensed Operator Training
TQ-243	Licensed Operator Training
TQ-244	Licensed Operator Requalification Training

OPERATIONS

OP-301	Conduct of Shift Operations
OP-302	Tagout Practices
OP-304	Use of Procedures
OP-305	Plant Status Controls
OP-309	Watch Turnover

MAINTENANCE

MA-401	Maintenance Organization and Administration
MA-402	Preventive Maintenance
MA-403	Maintenance Procedures
MA-404	Work Control System
MA-405	Maintenance History
MA-406	Control and Calibration of Test Equipment & Instrumentation

TECHNICAL SUPPORT - ON SITE

TS-702	On Site Engineering Support

II. COMMONWEALTH EDISON COMPANY CORPORATE AND STATION PERSONNEL CONTACTED

Executive Vice President
Vice President of Nuclear Operations
Operations Manager (Corp.)
Plant Superintendent
Administrative & Support Services - Assistant Superintendent
Operations - Assistant Superintendent
Maintenance - Assistant Superintendent
Personnel Administrator
Training Supervisor
Unit Support Operating Engineer
Technical Staff Supervisors
Master Instrument Mechanic
Mechanical Maintenance Foreman - Instructor
Radiation & Chemistry Supervisor
Master Mechanic
Master Electrician
Engineering Assistants
Instrument Foremen
Electrical Foremen
Staff Engineer
Quality Control Inspector
Documentation Clerk
Central File Supervisor
Planners
Mechanical Foremen
Engineering Assistant/Mechanical Assistant
Staff Engineer, Mechanical Maintenance
Electrical Planner
Staff Assistant
QA Coordinator
QC Supervisor
Unit 1 Operating Engineer
Surveillance Engineer
Operating Staff Assistant
Shift Foremen
Shift Engineers
Waste Systems Engineer
Procedure Coordinator
Fire Marshal
Fuel Handler Foreman
Stationman Foreman
Project Engineer
Systems Engineer