



Commonwealth Edison

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October 14, 1982

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Byron Station Units 1 and 2
Braidwood Station Units 1 and 2
LaSalle County Station Units 1 and 2
Zion Station Units 1 and 2
Quad Cities Station Units 1 and 2
Dresden Station Units 1, 2 and 3
Rad Chem Department Organization
NRC Docket Nos. 50-454/455, 50-456/457
50-373/374, 50-295/304, 50-254/265,
and 50-10/237/249

Reference(a): July 2, 1982 letter from T. R. Tramm to H. R. Denton

Dear Mr. Denton:

This is to provide information regarding the organization and performance of the departments responsible for radiation protection activities at Commonwealth Edison nuclear generating stations which are in operation and under construction. This letter fulfills a commitment made in reference (a).

In response to NRC concerns regarding the performance and organization of our health physics activities, we have made continual improvements in our radiation protection program. Significant changes and improved program development were initiated several years ago in response to the NRC intensive health physics appraisal audits. Distinct improvements have been made during the past two years in the areas of Rad-Chem organization and management support, training, inter-department communications, access and contamination control, ALARA activities, exposure control, emergency response, instrumentation, and post-accident sampling and monitoring.

Nevertheless, we recognize that the radiological protection program needs further strengthening as expressed by the NRC Region III staff subsequent to the overexposures at Zion and Dresden Stations. In this regard, corporate and station management have targeted their attention and company resources to further upgrade our radiation protection program to meet standards. We are also working with the Institute of Nuclear Power Operations (INPO) and the American Nuclear Insurers (ANI) with respect to evaluating our radiation protection program and have taken steps to correct deficiencies identified during their evaluations.

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To put our present program in perspective, listed below are the more significant actions taken and achievements since 1980. Following this is a discussion of our recent accomplishments and our plans for 1983 and 1984. We believe that the recent changes in the Rad-Chem organization and future planned changes adequately address the NRC concerns relating to management and supervision of health physics activities.

The principal health physics improvements implemented during 1980, 1981, and 1982 are:

1. Implementation of revised standardized radiation protection standards.
2. Institution of a formal corporate and station ALARA program.
3. Reorganization of the station Radiation Chemistry Department.
4. Performance of Radiation Chemistry Department job task analyses.
5. Improvement of Radiation Chemistry Technician (RCT) training programs.
6. Replacement of indirect pencil dosimeters with more accurate self-reading dosimeters.
7. Development of a computerized benefit/cost program for determining whether a proposed action to reduce occupational dose is reasonably achievable. This program is based on the AIF/NESP-010R report entitled "Potential Benefits of Reducing Occupational Radiation".
8. Initiation of a trending program for Radiation Occurrence Reports.
9. Formal organization of the corporate health physics support staff.
10. Installation of more sensitive portal monitors at the nuclear stations.
11. Completion of a TLD implementation study.
12. Installation of a substantial amount of new state-of-the-art radiation monitoring as part of our response to NUREG-0737.

Several key items on this list have only been recently initiated such as the formal ALARA program, the radiation work permit, changes made in the revised radiation protection standards, physics organization trending of Radiation Occurrence Reports and the re-structured health physics support staff organization.

We acknowledge that special attention must be given to improving the health physics organization and in that regard we have made substantive changes with respect to the corporate office. Our Technical Services Nuclear (TSN) department is expanding the corporate health physics organization to provide a stronger corporate program to support the stations' needs and ensure that program goals and high standards of excellence are implemented and achieved. This health physics staff has increased from 3 to 6 people within the last four months. Organization changes made by TSN include:

1. Provision for more senior management attention to health physics;
2. Staffing plans (Attachment A) to provide a functional split of activities into field services, ALARA, and technical (dosimetry/instrumentation/training) services. Total staffing should be implemented over the next two years.

In addition to the organization changes made on the corporate level, additional options were studied for an optimal health physics structure at the station level. Included in the evaluation was a review of a consultant report regarding the station Rad-Chem Department organization. As a result of this effort several substantive changes will be made to station Rad-Chem organization. These include:

1. Direct supervision of the foremen by the lead professionals in the areas of health physics and chemistry;
2. Round-the-clock health physics supervision by health physics foremen to direct the activities of the RCTs during each shift;
3. Laboratory supervision by a dedicated foreman, on the day shift Monday through Friday;
4. Adequate staff to divest the professionals and foremen from clerical activities such as scheduling and record keeping.

Because these changes will require creation of additional jobs and selection and training of the personnel to fill them, this program cannot be fully implemented immediately at all stations. A phased implementation has begun. At this time, Zion has its foremen staff

complete. By the end of this year, we would expect some additional foremen at Quad Cities and Dresden. The staffing will be fully completed by the end of 1983 at Dresden, Quad Cities, Zion and LaSalle and by fuel load for Byron and Braidwood.

The station Rad-Chem organization will keep chemistry and health physics in the same functional area. NUREG-0761, "Radiation Protection Plans for Nuclear Power Reactor Licensees," acknowledges that multiple specialties of radiation protection and chemistry are permissible providing the individual is qualified in each specialty, including training, experience, testing, and retraining. NUREG-0731, "Guidelines for Utility Management Structure and Technical Resources," notes that a staff-imposed "best" solution to a specific organizational structure is precluded and must be made on a subjective basis. Although it is somewhat more difficult to ensure that RCTs remain competent in both areas, we feel that such a program provides more flexibility to the operation and support of our stations, particularly during outages and emergency situations. RCT training and retraining will ensure that competency and program continuity are maintained. In addition, we are evaluating the recommendation given in the consultant study provided in reference (a) that graded levels of job assignments be created for the RCTs. The information acquired from our completed job task analysis for RCT's will be used in making our evaluation. The creation of multilevel RCT positions will require the establishment of job specifications as well as negotiations with the bargaining group. This process could take several years.

Additional management support will be given to the station radiation protection programs by focusing attention on improving the general attitude of station personnel toward health physics and requiring direct involvement between the superintendent and the health physics staff. Management attention will be stressed by the following actions:

1. Management recognition for good performance.
2. Periodic meetings between the Superintendents and the health physics organization to highlight the importance of their role.
3. Additional communications at all levels in other departments regarding the importance of health physics. This will include a continuation and the strengthening of the attention given to health physics topics in post job review meetings and industrial safety meetings.
4. Continued underscoring of the importance of health physics in preoutage planning meetings.

5. Special meetings with the shift engineers regarding the importance of health physics concerns, using examples such as the Zion and Dresden overexposure incidents as discussion points.
6. Continued management attention to the exceptions to good performance in the health physics area.

With respect to improving the health physics training programs, a full-time TSN training coordinator was assigned in April, 1982. This individual is working with Production Training Department on the development of a generic Radiation Chemistry Technician (RCT) training program. The first generic training class is scheduled to start in early 1983. Regarding health physics foreman training, TSN has recommended that they receive the same retraining instructions now given to the RCTs. In addition, they require management training: "Supervising for Results". The professional health physics staff has been instructed to re-emphasize to each Rad-Chem foreman the importance and necessity to assign RCTs to appropriate work based on their level of experience and training.

The continued development and strengthening of our programs is being addressed by Commonwealth Edison through the goals concept. Stated health physics goals for 1983-1984 are listed below:

1. Incentives program for good health physics performance.
2. Restructure RCT group to provide multilevel work.
3. Total radiation records management system.
4. Standardized training programs.
5. Standardization of health physics equipment and calibration techniques.
6. Development of a corporate health physics quality assurance position.
7. Development of a corporate field services program.
8. Evaluation of an in-house internal dosimetry program.

Finally, the need to emphasize our commitment to radiation protection to all personnel working at our nuclear stations was addressed in a recently revised policy statement. A copy of this policy statement is attached. It expands upon the previous policy statement by addressing the responsibility of the station superintendent towards the radiation protection program in addition to delineating management's commitment to ALARA.

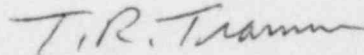
October 14, 1982

We believe that the program development outlined in this letter adequately addresses the concerns of the NRR and Region III staffs regarding our radiation protection activities. Each item listed for 1983 and 1984 should not be construed as a specific commitment but rather as a company goal. A concerted effort will be made to complete each goal within the described time frame but as program changes and development occur these goals are subject to modification. It is our intent to keep the development of the radiation protecting program flexible in order to best meet the needs of our nuclear generating stations.

Please address questions regarding this matter to this office.

One signed original and fifty copies of this letter and the attachments are provided for your review.

Very truly yours,



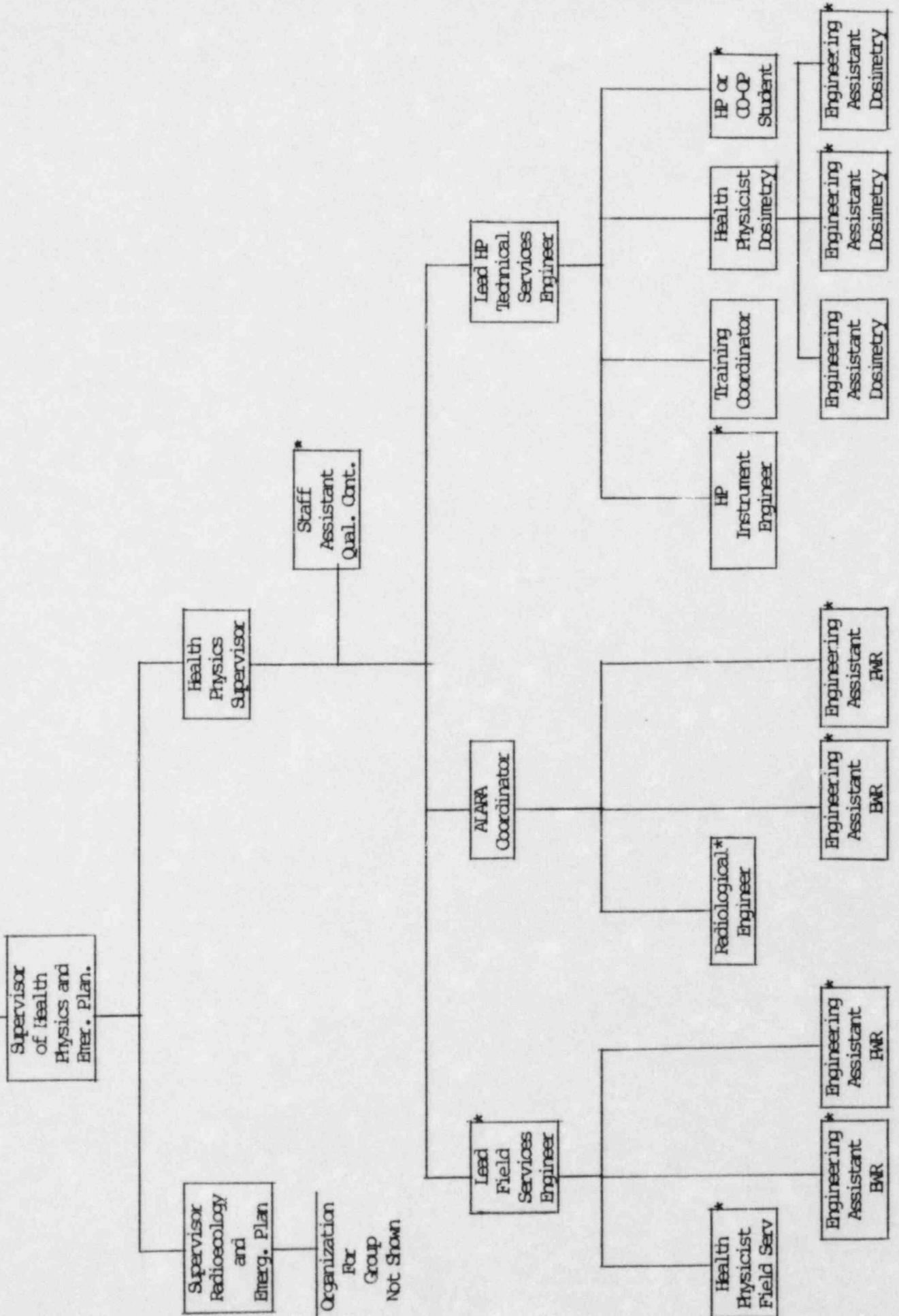
T. R. Tramm
Nuclear Licensing Administrator

TRT/lm

cc: J. G. Keppler

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HEALTH PHYSICS AND EMERGENCY PLANNING



*Unfilled



SUBJECT: Radiation Protection Practices at
Nuclear Generating Stations

Effective: September 1, 1982

Cancels: Prod Instn 1-3-N-2 (6-1-80)

Introduction

An effective radiation protection program consists of all actions planned or taken to protect workers and the environment, monitor radiation and radioactive materials, control distribution and releases of radioactive materials, and keep radiation exposures to individuals within the limits of 10 CFR Part 20 and at levels as low as is reasonably achievable during normal and abnormal operations. It includes facility protection policies, trained personnel, facilities, equipment, and implementing procedures. It should not be assumed that the responsibility for radiation protection rests solely with the radiation protection group. All levels of management must have a strong commitment to radiation protection, and each worker must take personal responsibility for actions necessary to implement a successful radiation protection program.

Management Radiation Protection Policy

A. ALARA

It is the policy of Commonwealth Edison Company to maintain occupational radiation exposures as low as is reasonably achievable (ALARA), consistent with station construction, maintenance, and operational requirements, and with economic and social considerations being taken into account.

Management's commitment to this policy is reflected in the Commonwealth Edison Company Radiation Protection Standards and the Corporate ALARA Manual, in station design, in careful preparation and review of station operating and maintenance procedures, and in review of equipment design to incorporate the results of operating experience.

All Commonwealth Edison Company employes, contractors, and consultants who are involved in the design, construction, and operation of nuclear generating stations are instructed in ways to reduce radiation exposures to the lowest practical minimum to assure that this ALARA policy is followed.

B. Nuclear Station Radiation Protection Program Criteria

A primary responsibility of the Station Superintendent is the safe operation of the plant to ensure the health and safety of the general public and persons on site. As relates to the station radiation protection program, the Superintendent shall:

Assure that each supervisor implements assigned responsibility to integrate appropriate radiation protection controls and goals into all work activities.

Assure that each individual working at the facility understands and accepts the responsibility to follow all procedures and to maintain one's radiation dose ALARA.

Ensure that all personnel at the station comply strictly with regulatory requirements, radiation exposure limits, and limits regarding release of radioactive materials.

Assure that a comprehensive radiation protection program is established and maintained to keep individual and collective radiation doses to workers below regulatory limits and as low as is reasonably achievable.

Provide sufficient resources and manpower to accomplish the objectives of the radiation protection program.

Implement the corporate radiation protection policy throughout the station.

Interact with and support the Radiation-Chemistry Supervisor on implementation of the radiation protection program.

Assure that the occurrence report system receives timely and effective follow-up by radiation protection and by the appropriate Assistant Superintendent when requested by the Radiation-Chemistry Supervisor.

Dennis Galle

Division Vice President and General Manager
Nuclear Stations

Approved:

Cordell Reed
Vice President