ATTACHMENT 2

Consumers Power Company
Palisades Plant
Docket 50-255

PALISADES PLANT - PROCEDURES GENERATION PACKAGE

May 23, 1986

9 Pages

1. INTRODUCTION

1.1 PURPOSE

The purpose of this Procedures Generation Package (PGP) is to describe the emergency operating procedures (EOPs) upgrade at the Palisades Nuclear Plant.

1.2 SCOPE

This document was developed in response to Supplement 1 to NUREG-0737, Item 7.2b, page 15.

1.3 ORGANIZATION

This document consists of the following five major parts:

° Plant-Specific Technical Guidelines
° Writer Guidelines for EOPs
° EOP Verification Program
° EOP Validation Program
° EOP Training Program

Each part describes the approach taken as part of the overall EOP Development and Implementation Plan for the Palisades Nuclear Plant.

1.4 SUMMARY DESCRIPTION OF PROGRAM

a. Project Team

The new EOPs will be developed and implemented by a project team designated by the Palisades Plant Operations Superintendent. The project team will consist of contract personnel (assigned because of their previous related experience) and a licensed reactor operator to provide plant specific information. Additional support from Shift Engineers (SRO qualified) and other Operations Department personnel will be provided on a time available basis.

b. Interfacing Procedures

EOPs are only one of the many types of instructions within the plant's procedure system. Their relationship to each other and other plant procedures will be considered during EOP upgrade to ensure continuity of the EOPs with the supporting plant and system procedures. Where necessary, changes to existing procedures will be recommended and processed as part of this program.

For purposes of EOPs, an emergency event is distinguished from other plant operations by virtue of its severity in that it is sufficiently severe that a reactor trip is either activated or required immediately to properly mitigate the event. Other less severe events for which a reactor trip is not required, but if left unattended could eventually challenge safety functions will be addressed as offnormal procedures.

2. PLANT SPECIFIC TECHNICAL GUIDELINES

2.1 GENERAL

Because of the similarity between Palisades and the generic plant used in the Combustion Engineering Owner's Group (CEOG) generic Emergency Procedure guidelines (EPGs), Palisades will use the CEOG EPGs (CEN-152, Revision 2, Dated 05/15/84) to upgrade existing plant emergency procedures. This section describes the process that will be used. The CEOG EPGs and the other source documents indicated below constitute the plant specific technical guidelines required by Reference 7.1. Future approved revisions to the CEN-152 will be incorporated into the EOPs using the established revision, review, and approval process.

2.2 PROGRAM DESCRIPTION

a. Source Documents

EOP writers will use the following source documents to prepare upgraded EOPs.

° EOP Writer Guidelines (See Attachment 3)

° CEOG Emergency Procedure Guidelines

° Function and Task Analysis Report

° Technical Specifications

° Existing Emergency Procedures

° FSAR UPDATE

° Licensing Commitment Letters Related to EOPs

° Administrative Procedures

° As Built Plant Drawings

b. Function And Task Analysis

As described in Attachment 3, a Function and Task Analysis of the EPGs was performed. This analysis identified the individual operator tasks necessary to perform each EPG step and then specified the instrumentation and control requirements for each task. The specified instrumentation and control requirements were then compared against the existing control room components to assure that required instrumentation and controls were available. This generated an additional source document for the EOP writers that reflects plant specific tasks and terminology to accomplish the specified safety functions. The initial function and task analysis will be reviewed by contractor personnel providing the majority of the DCRDR effort. A complete description of the Palisades Function and Task analysis will be included in the control room design review final report scheduled for August 1986 submittal to the NRC.

c. Safety Significant Deviations From/Additions To EPGS

Attachment 1 lists those items of safety significance which are deviations from or additions to the EPGs and reference to the technical justification for each.

d. EOP Technical Notebook

The EOP writer will maintain a Technical Notebook (handwritten is acceptable) which will provide specific reference and/or additional technical justification for appropriate steps of the EOP. Deviations from the CEOG EPGs will also be addressed and justified if necessary.

e. Safety Functions

Seven safety functions were evaluated during the Function and Task Analysis per Attachment 3. The indirect radioactivity release safety function was not evaluated since this is not addressed specifically in the EPGs. Per CEN-152:

"The purpose of indirect radioactive release control is to prevent radioactive releases to the environment (gaseous, solid, and liquid, including radioactive coolant) from sources outside containment. These sources include the spent fuel pool and the radioactive waste handling and storage facilities. The systems used to control releases from these sources include the radiation monitoring system, the spent fuel pool cooling system, and the waste management and processing systems. In mitigating the types of emergencies for which CEN-152 provides guidance, the indirect radioactive release safety function does not come into play. Consequently, operator actions necessary for control of the indirect radioactive release safety function are not found in CEN-152."

CPCo feels that the intent of this safety function is addressed in the Palisades Plant Emergency Implementation Procedures and related plant procedures and will therefore not address this safety function specifically in the plant EOPs.

3. WRITER GUIDELINES FOR EOPs

3.1 GENERAL

A plant specific writer guidelines for EOPs has been prepared to provide instructions on writing EOPs and using good writing principles. In addition, the guide helps to promote consistency among all EOPs and subsequent revisions, independent of the number of EOP writers.

The writer guidelines will be revised as necessary, based on feedback from operator training, experience and validation.

3.2 DOCUMENT DESCRIPTION

Information on the following major items is included in the plant specific writer guidelines for EOPs:

° Introduction

° Numbering, Headings, Format

° Writing Instructional Steps

° Mechanics of Style

° General Appearance

The Palisades Plant Writer Guidelines for Emergency Operating Procedure is based primarily on the industry document Emergency Operating Procedures Writing Guideline (INPO 82-017), developed by the Emergency Operating Procedures Implementation Assistance (EOPIA) Review Group and published by INPO. These guidelines are included in Attachment 3.

4. EOP VERIFICATION PROGRAM

4.1 GENERAL

EOP verification is the evaluation performed to confirm the written correctness of the procedure and to ensure that applicable generic and plant-specific technical information has been incorporated properly. This evaluation also checks that the human factors aspects presented in the writer guidelines for EOPs have been applied.

4.2 PROGRAM DESCRIPTION

When developing the EOP verification program, the following major items were considered:

° How EOP verification will be performed

° How completion of the EOP verification process will be documented

° What process will be used in resolving discrepancies

The verification program is based on the industry document Emergency Operating Procedures Verification Guideline (INPO 83-004), developed by the EOPIA Review Group and published by INPO.

The Palisades Plant Administrative Procedure for Emergency Operating Procedure Development and Implementation (Attachment 3) includes a verification section that addresses the following objectives:

° EOPs are technically correct, i.e., they accurately reflect the technical guidelines and other EOP source documents.

° EOPs are written correctly, i.e., they accurately reflect the plant-specific writer guidelines.

° A correspondence exists between the procedures and the control room/plant hardware.

° The language and level of information presented in the EOPs are compatible with the qualifications, training, and experience of the operating staff.

EOP verification will be accomplished as follows:

a. Technical Review

The EOPs will be reviewed by available Operations Department personnel independent of writing responsibility, for verification that the EOPs are technically accurate.

b. EOP Verification Checklist

An EOP verification checklist will be used by Palisades Quality Assurance personnel to ensure that the EOPs conform to certain criteria established to preserve clarity and a degree of consistency in presentation of the written material.

NOTE: The table top review and control room walk-through have been
        deleted from the verification process. While these steps are
        excellent methods to assure accuracy of the procedures, they are
        extremely demanding of the time of Operations personnel. These
        resources are not available to provide these steps in a timely
        manner, therefore they have been deleted. The technical review
        mentioned above is considered sufficient to assure accuracy and
        completeness of the procedures.

5.   EOP VALIDATION PROGRAM

5.1   GENERAL

EOP validation is the evaluation performed to determine that the actions
specified in the procedure can be performed by the operator to manage the
emergency conditions effectively. The methodology for EOP validation
will consist of performing selected scenarios at the Palisades Plant
specific simulator for each EOP.

5.2   PROGRAM DESCRIPTION

When developing the EOP validation program, the following major items
were considered:

° How EOP validation will be performed

° How to appropriately use the simulator as a method of validation

° The evaluation criteria to be applied and the methods to be followed
   in resolving discrepancies

° How completion of the EOP validation process will be documented

The program is based on the industry document Emergency Operating
Procedures Validation Guideline (INPO 83-006), developed by the EOPIA
Review Group and published by INPO. The Palisades Plant Administrative
Procedure for Emergency Operating Procedures Development and Implementa-
tion (Attachment 3) includes a validation section that addresses the
following objectives:

° EOPs are usable, i.e., they can be understood and followed without
   confusion, delays, and errors.

° A correspondence exists between the procedures and the control room/
   plant hardware.

° The instructions presented in the EOP's are compatible with the shift manpower, qualifications, training, and experience of the operating staff.

° A high level of assurance exists that the procedure will work, i.e., the procedures guide the operator in mitigating transients and accidents.

The Validation Program will basically consist of the following activities:

a. Designate Observe/Review Team and Operator Personnel

The Operations Superintendent will designate personnel to participate in EOP validation. A coordinator will be designated to conduct the steps and assure all participates are prepared for progression of the process. An operations crew familiar with the EOPs will perform the operator actions. Observers will evaluate the effectiveness of the EOPs to meet objectives and success criteria. A human factors specialist will observe operator performance to determine if human engineering problems are indicated.

b. Select Scenarios

The EOP Team with assistance from Simulator Training Staff, will select appropriate scenarios for EOP validation. Alternate validation methods will be determined for operations which the simulator does not adequately provide.

c. Conduct Simulator Validation Runs

Selected scenarios will be run on each EOP to determine if the actions specified in the EOP can be performed by the operator to manage the emergency condition effectively.

d. Debrief and Resolution of Discrepancies

Personnel involved in the validation run will be debriefed. Data assessment and debrief comments will be reviewed and revision requests generated as necessary. Revalidation will be performed for significant revisions.

6. EOP TRAINING PROGRAM

6.1 GENERAL

The EOPs format requires that the operator have a significant knowledge level based on experience and specific training on the use of the EOPs. A primary reference for development of training is the Technical Notebook the writers maintain which includes specific justification for steps of the EOPs. Training will be conducted prior to initial implementation of the new EOPs.

6.2 PROGRAM DESCRIPTION

The training program described herein is comprised of both classroom and simulator training.

The training program has four major objectives:

° To enable the operator to understand the structure and format of EOPs.

° To enable the operator to understand the technical basis of the EOPs.

° To enable the operator to have a working knowledge of the technical content of the EOPs.

° To give the operator experience in using the EOP under simulated control room conditions.

The Training Process can be divided into these areas:

a. Awareness and Involvement in the Upgrade Process.

   During operator requalification training in 1986 the EOP upgrade program progress will be discussed and draft procedures will be reviewed and critiqued as time permits.

b. Classroom Presentation and Discussion

   Instruction will be given on:

   a. Use of the new format

   b. Standard post trip actions

   c. Each event specific EOP

   d. When and how to use the Functional Recovery EOP

c. Simulator Instruction

Use of the Palisades Plant specific simulator will provide each operator the "hands on" experience of using the EOP under control room operating conditions. This allows the operator to observe the effects of various actions and non-actions.

d. Examination

Test will be administered to check that the necessary information has been learned. This will include:

i. Written examination at the conclusion of classroom presentation.

ii. Operating evaluation at the conclusion of the simulator instruction.

6.3 TRAINING ON REVISIONS (AFTER INITIAL IMPLEMENTATION)

Training on minor procedure revisions will be conducted through a program of required readings (self-taught), preshift briefings, or lectures in the requalification program and will occur coincidental with implementation.

Training on major revisions will be conducted by the use of classroom instruction and walk-throughs in the control room or on the Palisades plant-specific simulator. If operational considerations do not allow control room walk-throughs, and the plant-specific simulator is not available, training on major revisions will be conducted during classroom instruction. In any event, training on major revisions will be completed prior to implementation.

7. REFERENCE

7.1 NUREG-0707, Supplement 1, Item 7.2b, page 15.

7.2 Combustion Engineering Emergency Procedure Guidelines, CEN-152, Revision 2.