

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

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 FACIL: 50-250 Turkey Point Plant, Unit 3, Florida Power and Light C 05000250
 50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251
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 RECIP. NAME RECIPIENT AFFILIATION
 VARGA, S. A. Operating Reactors Branch 1

SUBJECT: Forwards addl info to util 830715 response to NUREG-0737,
 Suppl 1 re safety parameter display sys, detailed control
 room design review & Reg Guide 1.97.

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	NRR/DSI/RSB	1	1	NRR/THOMPSON, W	3	3
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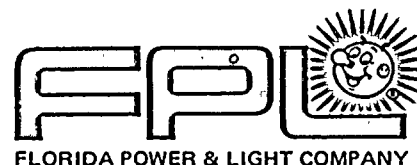
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The following information was obtained from the records of the
 Department of the Interior, Bureau of Land Management, at
 Washington, D. C., on the subject of the land owned by the
 United States in the State of California.

The following is a list of the land owned by the United States in the State of California, as of the date of the report.

The following is a list of the land owned by the United States in the State of California, as of the date of the report.

Section	Township	Range	Acres
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
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96	96	96	96
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99	99	99	99
100	100	100	100



July 25, 1983
L-83-421

Office of Nuclear Reactor Regulation
Attention: Mr. Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Varga:

Re: Turkey Point Units 3 & 4
Docket Nos. 50-250 & 50-251
Supplement 1 to NUREG 0737

Per conversations with your staff, attached is additional information to our Supplement 1 to NUREG 0737 response dated April 15, 1983 (L-83-237).

Very truly yours,

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/SAV/cab

Attachment

cc: J. P. O'Reilly, Region II
Harold F. Reis, Esquire

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SAFETY PARAMETER DISPLAY SYSTEM (SPDS)

NUREG-0696 provided the basic requirements for the parameters selected for SPDS. Florida Power and Light (FPL) Operations personnel and Engineering personnel, the Architect Engineer, and the consultants and manufacturers of the Safety Assessment System (SAS) determined the final parameter selection. The SPDS is the part of SAS that fulfills the requirements of NUREG-0696. The general constraints and considerations used in the parameter selection are listed below.

- Regulatory requirements for the SPDS portion must be met.
- Wide range values should be used wherever possible.
- Other designs and experience, i.e., EPRI/NSAC, W, AIF, should be reviewed and considered for "do's and don'ts".
- Consideration must be given to both "event" and "function" approaches to procedural interfaces.
- Human factors considerations are of prime importance.

The Functional Design Specifications of SAS address the functional requirements, training, human factors, verification and validation. These specifications have been completed.

The manufacturing of the hardware has been completed. The integrated hardware and software testing program has been substantially increased. The testing and delivery of SAS is presently scheduled during August 1983.

The control wiring diagrams of the SPDS parameters are nearly complete.

The Computer Room which houses the SAS equipment, isolation cabinets and other peripherals will be ready in a few months.

The isolation cabinets for safety related instrumentation signals will be installed during the 1983 Refueling Outage (presently scheduled for completion by December 1983).

Florida Power and Light plans to submit the parameter selection and definition report along with the implementation plan by May 1, 1984. These reports will be written to satisfy the reporting requirements of Supplement I to NUREG 0737.

The final installation of the SPDS portion of SAS verified and validated for each unit. The SAS will be utilized for information purposes and operator training before it is declared operational. This period will also be used to locate possible hardware problems or software bugs. Any necessary modifications will be made during the outage before the SAS is declared operational. The SAS will be declared operable and the operators trained after the following outages.

Turkey Point Unit 3
Turkey Point Unit 4

1985 Refueling Outage
1984 Refueling Outage

Detailed control Room Design Review (DCRDR)

The DCRDR for Turkey Point consists of four phases. Phase I was started April 1981. Florida Power and Light is presently working in Phase IV. The summary report of the completed review, describing the Human Engineering discrepancies review and assessment and proposed implementation schedule will be submitted by November 1, 1983. Significant modifications to the Control Room will be dependent upon NRC review and approval of the summary report.

The four phases of the DCRDR are outlined below.

Phase I Develop Program Plan

Florida Power and Light utilized NUREG-0700 to develop the program plan. The details of the program plan have been documented in our Program Plan report (also referred to as Management Plan) and will be submitted to the NRC by June 1, 1983.

The Program Plan report covers the following:

- . Review of methodologies
- . Review of documentation
- . Personnel qualifications, and project organization
- . Method of Assessment and prioritization of discrepancies
- . Summary report outline

Phase II Control Room Review

Considerable data has been collected and analyzed to develop human engineering discrepancy (HED) reports. The following functions were performed during this phase.

- . Review of operating experience (2 sub tasks)
- . Assemble Control Room documentation
- . Review of system functions and task analysis (4 step program)
- . Control Room surveys (14 different surveys)
- . Verify task performance capability (2 sub tasks)
- . Validate Control Room functions
- . The HED Review Team assessed the discrepancies found

Phase III Enhancement and Design Solutions

Discrepancies are collated and examined for correction by using the following basic procedure

- . Analysis of correction by enhancement
- . Analysis of correction by design alternatives
- . Assess extent of correction

Phase IV Reporting

The DCRDR Summary Report will closely follow the outline recommended in Section 5.2 of NUREG -0700. The implementation schedule will be included.

Regulatory Guide 1.97

Florida Power and Light has completed the listing of all the existing Accident Monitoring Instrumentation (AMI) at Turkey Point. A summary format of this listing will be incorporated into the Regulatory Guide 1.97 Evaluation Report and submitted to the NRC. This report will include the following for each instrument.

- . Qualification Information
- . Power Supply
- . Display Location
- . Redundancy

The Quality Assurance documentation will be verified for the report. After the summary sheet information is completed, an evaluation of the AMI with respect to the requirements of Regulatory Guide 1.97 will be performed. This evaluation will be utilized to determine those items that require modifications and provide justification for those items that Florida Power and Light does not intend to modify. A schedule for making the modification and proving the justifications will be proposed based upon the following.

- . Safety significance of the deviation
- . Severity of the deviation
- . Engineering and procurement lead time requirements and constraints
- . Overall outage schedules

The final Regulatory Guide 1.97 Evaluation Report is scheduled for submittal by March 1, 1984.

TSC

The auxiliary power upgrade program will provide the backup electrical power to the TSC. This upgrade entails connecting existing loads to the new system and changing and modifying the source of power to controls in the control room. These changeovers require a plant shutdown to complete.

Integration of SPDS, DCRDR, Reg. Guide 1.97, and Operations

The design of the SPDS displays were based on the proposed draft of NUREG-0835 and other industry standard human factor guideline for control systems and considerable operator input as to information needed to assess normal and emergency plant conditions. The proposed draft to Regulatory Guide 1.97 was considered in the design of the SPDS. Information on the SPDS for each unit will be provided, by November 1983, for integration into the DCRDR, developing EOP's, and operator training. The SPDS will be tested, operated for information purposes, and used for operator training over a considerable period before it is declared operational. During this time, modifications desired by FPL to integrate any additional requirements due to the Regulatory Guide 1.97 evaluation or the SPDS portion of the CRDR can be made to the SPDS or Control Boards.



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