

ILLINOIS POWER COMPANY



0970-L

CLINTON POWER STATION, P.O. BOX 678, CLINTON, ILLINOIS 61727

April 13, 1983

Docket No. 50-461

Director of Nuclear Reactor Regulation
Attention: Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Clinton Power Station, Unit #1
Supplement 1 to NUREG-0737:
Requirements for Emergency Response Capability

Dear Mr. Schwencer:

NRC Generic Letter No. 82-33, Supplement 1 to NUREG-0737, provided clarification and guidance regarding Safety Parameter Display System, Detailed Control Room Design Reviews, Regulatory Guide 1.97 (Rev. 2), Upgrade of Emergency Operating Procedures, and Emergency Response Facilities. Supplement 1 to NUREG-0737 is a compilation of the basic requirements for these topics from the broad range of guidance documents that the NRC has previously issued (principally NUREG reports and Regulatory Guides).

Pursuant to the requirements of 10CFR50.54(f), holders of construction permits were requested to furnish, no later than April 15, 1983, a proposed schedule for completing each of the basic requirements for the items identified in NUREG-0737 Supplement 1 and a description of the implementation plans.

This letter provides a description of Illinois Power Company's (IP) plan for phased implementation and integration of these emergency response initiatives at the Clinton Power Station (CPS). This plan will be used to guide, monitor and support emergency preparedness activities at CPS.

Attachment #1 is the CPS Emergency Response Capability Implementation Plan (ERCIP) Logic Diagram. This diagram shows the interrelationships of the various ERCIP activities at CPS. Attachment #2 provides a written description of the CPS ERCIP Logic Diagram. This plan is based upon the direction contained in NUREG-0737 Supplement 1 and takes into account progress towards implementing past NRC requirements and guidance. Attachment #3 is a list of submittals. A matrix of IP's response to the Emergency Response Capability initiatives is included in Attachment #4.

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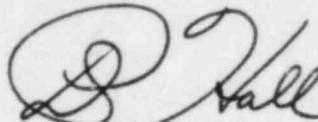
April 13, 1983

IP is reevaluating the January 1984 scheduled fuel load date for CPS. This reevaluation will be completed by June 1983. A detailed implementation schedule of the ERCIP activities will be forwarded at that time. Submittal dates are provided or will be provided in June 1983 as indicated on Attachment 3.

Illinois Power will meet with your staff to explain our integrated implementation plan in more detail, if necessary.

Pursuant to 10CFR50.54(f), the undersigned attests that the information contained herein is true and correct.

Sincerely yours,

A handwritten signature in cursive script, appearing to read 'D. P. Hall'.

D. P. Hall
Vice President

TLR/jeb

Attachments

cc: H. Abelson, NRC Clinton Project Manager
D. M. Rohrer, NRC Emergency Preparedness Branch
H. H. Livermore, NRC Senior Resident Inspector
Illinois Department of Nuclear Safety

INTRODUCTION

On January 3, 1983 Illinois Power Company received NRC Generic Letter 82-33 Supplement 1 to NUREG-0737, "Requirements for Emergency Response Capability." Illinois Power has developed an integrated implementation program that responds to the requirements of Generic Letter 82-33. In developing the implementation program a review was conducted of industry guidance from the Nuclear Utility Task Action Committee, previous NRC Regulatory Guides, various NUREG documents, BWR Owner Group guidance, Illinois Power's commitments in the CPS Safety Evaluation Report (SER), and past NRC correspondence on emergency response initiatives.

EMERGENCY RESPONSE CAPABILITY IMPLEMENTATION PLAN

A brief summary of Illinois Power Company's (IP) efforts in emergency response capability initiatives is included with a detailed description of the implementation plan for each activity.

As a member of the BWR Owners Group (BWROG) for TMI Activities, IP has had an active involvement in writing the Emergency Procedure Guidelines (EPGs) that have been submitted to the Staff. CPS Emergency Operating Procedures (EOPs) have been written based on BWROG EPGs. The CPS EOPs will be revised based on NRC approval of the BWROG EPGs revisions 2 and 3 and from the NRC response to the CPS Procedure Generation Package. A Preliminary Design Assessment (PDA) of the Main Control Room (MCR) has been performed by General Physics Corporation and a control room design review audit (CRDR/A) was conducted by the NRC Staff. The Staff found the CPS Main Control Room acceptable contingent upon correcting the human engineering deficiencies (HEDs) from the PDA, completing the PDA for the unreviewed systems and items, and submitting a report of resolutions. Sensors are being procured in order to meet the intent of Regulatory Guide 1.97 Rev. 2. In July 1981 the BWR Nuclenet Owners Group gave a presentation describing the implementation of the Safety Parameter Displays System (SPDS) in the CPS Main Control Room Nuclenet. Illinois Power is proceeding with this approach of implementing the Safety Parameter Displays in the existing cathode ray tube (CRT) based display system in the Nuclenet. A preimplementation review is requested to present our proposed method of incorporating SPDS in the Nuclenet.

SPDS formats meeting the system information requirements of Supplement 1 to NUREG-0737 have been developed. Illinois Power is proceeding with design and construction of Emergency Response Facilities (ERF) in an effort to meet the intent of Supplement 1 to NUREG-0737. An ERF design report will be submitted to the NRC as described in the submittal section of this report.

In developing the integrated implementation program the present status of each initiative was evaluated. The requirements of Supplement 1 to NUREG-0737 were reviewed against the past guidance. An integrated logic diagram was drawn incorporating the NRC and industry guidance for evaluating and integrating the Emergency Response Capability initiatives of Supplement 1 to NUREG-0737. From the logic diagram an implementation schedule is being developed. The Implementation Schedule will be available in June 1983 when evaluation of the CPS fuel load data is complete. This schedule will show the integration between emergency response activities, the dates for NRC submittals, implementation dates for emergency response activities and completion of operator training. The major effort of the IP Emergency Response Capability Implementation Plan involves reviewing and verifying that our present efforts are in consonance with the requirements of Supplement 1 to NUREG-0737. Our intention is to proceed with our present efforts in working with the NRC to implement the emergency response initiative and to use the Implementation Plan as a management tool to monitor and verify that the intent of the Emergency Response Capability requirements are met.

1. UPGRADE EMERGENCY OPERATING PROCEDURES (EOP) PLAN

IP is a member of the BWR TMI Owners' Group. As a member of the Emergency Procedure Guideline (EPG) Committee, IP has assisted in the development of the BWR generic EPGs. Several Emergency Operating Procedures (EOPs) have been upgraded at CPS to meet the intent of the present generic EPGs. The CPS upgraded EOPs presently include the following:

- (1) Reactivity Control EOP
- (2) Level Control EOP
- (3) Containment Control EOP
- (4) Cooldown Control EOP

Several calculations, per the methodology in the generic EPGs, Revision 2, Appendix C, have been performed and the results incorporated into the CPS EOPs.

As a result of a review of the generic EPGs Rev. 2, some additional instrumentation has been defined for CPS. In addition, the present SPDS display parameters have been determined as a result of a review of all CPS EOP instrumentation needs.

IP is presently developing a Hydrogen Control EPG and a Secondary Containment Control EPG/EOP.

Human factored, function-oriented, emergency operating procedures will be utilized to improve human reliability and the ability to mitigate the consequences of a broad range of initiating events and subsequent multiple failures or operator errors (Suppl. 1 NUREG-0737 Par. 7.1.a). The CPS EOPs will be based upon the BWR TMI Owners' Group (BWROG) generic Emergency Procedure Guidelines (EPG) with some CPS plant-specific exceptions taken (Suppl. 1 NUREG-0737 Par. 7.1.b). The NRC guidance contained in NUREG-0899 will be utilized to support the EOP plan. The major steps in the EOP plan will include the following:

- a. Performed in parallel without delaying SPDS implementation, IP, through BWROG membership, will complete CPS EPGs that will be used to develop plant-specific EOPs (Suppl. 1 NUREG-0737, Pars. 7.1.b & 7.2.a).
- b. A review of the generic BWR EPGs, for application to CPS, will determine if additional instrumentation necessary to implement the associated operator action steps is appropriate (Suppl. 1 NUREG-0737 Par. 7.1.b).
- c. EPG calculations, as defined in BWR EPGs Rev. 2 Appendix C, will be performed to aid in the determination of additional CPS instrumentation needs (Suppl. NUREG-0737 Par. 7.1.b).

- d. The development of CPS plant-specific EPGs will include preparation of the technical bases for each EPG action step and operator action flow charts. A Writer's Guide has been formulated that details the specific methods to be used by CPS Staff in preparing EOPs based upon these technical guidelines. Preliminary preparation of CPS EOPs has been based upon a review of the BWR generic EPGs. The final upgraded EOPs for CPS will be written from the plant-specific EPGs (Suppl. 1 NUREG-0737, Par. 7.1.c).
- e. Input from the preliminary EOPs will be used to establish an operator training program which will consist of the following basic components:
 - (1) Classroom lesson plans and training
 - (2) Control room walkthroughs - operator task analysis
 - (3) Simulator exercises

During training, the plant operators will be encouraged to offer recommendations about how the EOPs might be improved (Suppl. 1 NUREG-0737, Par. 7.1.d).

The results of the preparation of initial EOPs will also be utilized to determine if additional SPDS input parameters are needed (Suppl. 1 NUREG-0737, Par. 7.1.b).

Finally, the preliminary EOPs effort will provide a basis for defining the EOP Validation & Verification (V & V) process. The EOP V & V Program will consist of the following:

- (1) Simulator exercises
- (2) Control room walkthroughs - operator task analysis
- (3) Desk-top reviews
- (4) A check to ensure that the procedures and the control room/plant hardware correspond, i.e., control equipment and indications referenced are available and use the same designation, use the same units of measurement, and operate, as specified in the procedures.

- (5) Verification that there is a high level of assurance that the procedures will work, i.e., the EOPs guide the operator in mitigating transients and accidents.

The process of V & V will be coordinated with training such that the V & V on the simulator will be carried out concurrent with the training of the CPS operators.

IP will correct any discrepancies discovered during the EOP V & V process by making appropriate changes to the control room, procedures, training, or some combination of these (Suppl. 1 NUREG-0737, Par. 7.1.e).

- f. The multidisciplinary human factors review team, discussed in the Detailed Control Room Design Review (DCRDR) Plan, will either conduct a separate human factors EOP walkthrough or participate in the V & V walkthrough (Suppl. 1 NUREG-0737, Par. 7.1.b).

- g. Three months prior to commencing formal operator training on the upgraded EOPs, IP will submit a Procedures Generation Package (PGP) to the NRC staff. The CPS PGP will contain the following items:

- (1) CPS plant-specific EPGs (Technical Guidelines)
- (2) CPS operator action steps' technical bases; justification of any CPS exceptions to the BWR generic EPGs will be provided.
- (3) CPS plant-specific Writer's Guide
- (4) Description of the CPS EOP V & V Program
- (5) Basic description of the CPS Operator EOP Training Program.

The results of the SER issued by the staff, following their review of the CPS PGP, will be factored into additional upgrading of the EOPs and the operator training program, where appropriate (Suppl. 1 NUREG-0737, Par. 7.2.b).

- h. The CPS SER NUREG-0853 Section 13.6.3 states that, "the staff does not plan to conduct a pilot monitoring review of selected emergency operating procedures in accordance with TMI Task Action Plan I.C.8 for Clinton." The details of the CPS PGP should be adequate to fulfill the audit/review process of the NRC Reactor Inspection Program (Suppl. 1 NUREG-0737, Par. 7.2.c).
- i. The CPS SER Section 13.6.3 provides a discussion of IP's commitments to ensure an NSSS vendor (General Electric) review of the CPS EOPs prior to fuel load. This will be accomplished in accordance with NUREG-0737 Item I.C.7 (as committed to in CPS FSAR Amendment 9 Appendix D).
- j. All requirements regarding the upgrading of CPS EOPs will be implemented prior to fuel load, although revisions will be made as required (Suppl. 1 NUREG-0737, Par. 7.1.e.).

2. DETAILED CONTROL ROOM DESIGN REVIEW (DCRDR) PLAN

A Preliminary Design Assessment (PDA) has been conducted of the main control room by General Physics Corporation. The systems and items that were not installed at the time of the PDA will be reviewed prior to fuel load. The NRC Staff has performed a control room design review audit (CRDR/A) following the General Physics review. The PDA will be completed prior to fuel load as stated in section 18 of the CPS SER. A multidisciplinary review team is being formed to conduct preliminary reviews for human factors for emergency response capability initiatives.

The human engineering deficiencies (HED) from the PDA are in the process of being corrected or addressed. Resolutions to the HEDs have been accepted by the NRC in Section 18 of the CPS SER. The PDA included those systems and items in the main control room that were installed at the time of the review. The outstanding systems and items that still require review are listed in the CPS SER NUREG-0853. These systems and items will be evaluated and a report of the findings, proposed corrective actions and schedule for implementing the actions will be submitted. The evaluation of these items will be submitted for NRC review and approval not later than 120 days before the scheduled issuance of the operating license.

A multidisciplinary review team is being formed to conduct human factor reviews of Emergency Response Capability initiatives using NRC guidance and the assistance of a Human Factors Specialist. The purpose of the team will be to conduct preliminary reviews of new instrumentation (EPG and Reg. Guide 1.97 Rev. 2), Safety Parameter Display System (SPDS), Emergency Operating Procedures and the outstanding systems and items in Section 18 of the SER. (Suppl. 1-NUREG-0737 Section 7.1.a). The multidisciplinary review team will also conduct reviews of emergency response facilities for human factors principles (Supplement 1 to NUREG-0737 Section 8.2.1.k and 8.4.1.k).

A considerable effort was made to incorporate human engineering into the design of the CPS Nuclenet main control room. Following the Preliminary Design Assessment and the NRC control room design review audit, the Staff found the CPS MCR acceptable pending the completion of the PDA. In lieu of doing a DCRDR after fuel load, IP proposes performing a modified control room review. A consultant will be asked to complete the PDA as stated in the CPS SER. Included with the completion of PDA, a review of EOPs and of the modifications to the MCR due to emergency response capability initiatives will be conducted (Supplement 1 to NUREG-0737, Par. 5.1.d). Selected portions of the DCRDR would be performed in order to prevent duplicating the efforts of the PDA and to preclude doing a DCRDR at a later date. The program plan will be submitted to the NRC within two months of the start of this review (Supplement 1 to NUREG 0737, Par. 5.2.a). The results of the survey will be reviewed for significant human factors engineering discrepancies that should be corrected (Supplement 1 to NUREG, Par. 5.1.c). Each design improvement will be reviewed to ensure that individually and collectively the improvement will correct the human factors engineering deficiency and not create other safety problems. A Summary Report of the completed review will provide PDA resolutions, proposed control room modifications, resolutions and a proposed schedule for implementation (Supplement 1 to NUREG-0737, Par. 5.2.b).

3. REGULATORY GUIDE 1.97 (REVISION 2) PLAN

An evaluation of the referenced Regulatory Guide 1.97, (R.G. 1.97) Rev. 2, for application to CPS is being made. Some additional instruments and/or upgrading of existing instruments will be required for CPS. Procurement of these instruments is presently underway. The CPS R.G. 1.97 (Rev. 2) Compliance Report is presently being prepared.

Regulatory Guide 1.97 (Rev. 2) provides data to assist control room operators in preventing and mitigating the consequences of reactor accidents. IP will ensure that necessary and sufficient instrumentation exists at CPS for assessing plant and environmental conditions during and following an accident, as required by 10CFR50, Appendix A and General Design Criteria 13, 19, and 64 (Suppl. 1 NUREG-0737, Par. 6.1.a). The program for addressing Regulatory Guide 1.97 (Rev. 2) consists of the following steps:

- a. Development of Illinois Power Company's CPS plant-specific positions on each of the R.G. 1.97 (Rev. 2) variables is in progress. Instruments used for accident monitoring to meet the provisions of R.G. 1.97 (Rev 2) shall have the proper sensitivity, range, transient response, and accuracy to ensure that the control room operator is able to perform his role in bringing the plant to, and maintaining it in a safe shutdown condition. The capability to assess actual or possible releases of radioactive material following an accident will be provided. Instrumentation will be qualified, where appropriate, to the criteria used in the R.G. 1.97 (Rev. 2) for Category 1, 2, and 3 variables and in accordance with the methodology described in NUREG-0588. The seismic qualification of instruments will be based on CPS plant-specific seismic response spectra data. Accident monitoring instrumentation will comply with the applicable quality assurance requirements of Title 10CFR50, Appendix B, where appropriate (Suppl. 1 NUREG-0737, Par. 6.1.b).

As stated in the CPS SER, Section 2.3.3, the existing CPS onsite meteorological measurements system conforms to the guidance of R.G. 1.23 and has provided adequate data, as required by 10CFR100.10. Meteorological monitoring in accordance with Appendix 2 of NUREG-0654, or equivalent, will provide onsite measurements in the Technical Support Center (TSC), Emergency Operations Facility (EOF) and the Main Control Room (MCR) (Suppl. 1 NUREG-0737, Par. 6.1.b).

- b. CPS requirements for displaying R.G. 1.97 (Rev. 2) will be established for the MCR and the Emergency Response Facilities (ERF).

For the TSC, those R.G. 1.97 (Rev. 2) Type A, B, C, D, and E variables essential for the performance of TSC functions will be made available via color-graphic CRT displays. In addition, those meteorological variables necessary to characterize the transport and diffusion of radioactivity in the vicinity of the plant will be displayed in the TSC (Suppl. 1 NUREG-0737, Par. 6.1.c). For the EOF, those primary indicators needed to monitor containment conditions and releases of radioactivity from the plant shall be available in the EOF via color-graphic CRT displays. Those meteorological variables necessary to evaluate the transport and diffusion of these potential releases will also be available in the EOF (Suppl. 1 NUREG-0737, Par. 6.1.d).

- c. Some parameters in R.G. 1.97 (Rev. 2) relate to other licensing issues at CPS, as well as throughout the industry. These other issues include the following:

- (1) Inadequate Core Cooling (NUREG-0737 Action Item II.F.2; CPS SER Section 4.4.2) - R.G. 1.97 (Rev. 2) parameters related to ICC are Neutron Flux, upgrading RPV Water Level instrumentation, and BWR In-core thermocouples.
- (2) Anticipated Transients Without Scram (NRC proposed ATWS rulemaking) - R.G. 1.97 (Rev. 2) parameters related to ATWS are Standby Liquid Control System Flow and Storage Tank Level.

Compliance with the R.G. 1.97 (Rev. 2) requirements for these parameters will be addressed as these issues are resolved both generically and at CPS.

- d. IP believes that literal compliance with the provisions of the R.G. (Rev. 2), for some variables, is not appropriate because of their specific nature. Some R.G. 1.97 (Rev. 2) requirements call for excessive ranges or inappropriate categories. Other requirements could adversely affect operator judgement under certain conditions. For example, research by Sol Levy Inc. for the BWROG, shows that in-core thermocouples will provide ambiguous information to BWR operators.

Those cases where IP proposes deviations from the guidance in R.G. 1.97 (Rev. 2) will be explicitly described in the CPS compliance report. Supporting technical justification and/or alternatives, for these instances, will also be presented (Suppl. 1 NUREG-0737, Par. 6.2). Guidance in this area can be found in the BWROG generic position paper on Regulatory Guide 1.97 (Rev. 2).

- e. IP will submit a report describing how CPS will meet the provisions of R.G. 1.97 (Rev. 2). This submittal will include documentation that will provide the following information for each Type A, B, C, D, and E variable shown in R.G. 1.97 (Rev. 2):

- (1) Current CPS EOPs will be used to identify the Type A variables
- (2) Instrument range
- (3) Environmental qualification (as stipulated in the R.G. or compliance with 10CFR50.49 and NUREG-0588)
- (4) Seismic qualification (as stipulated in the R.G. 1.97 (Rev. 2) or compliance with CPS criteria as related to R.G. 1.100; exceptions will be justified relative to GDC 2)
- (5) Quality Assurance (as stipulated in the R.G. or compliance to CPS QA program; exceptions will be justified relative to GDC 1)
- (6) Redundance and sensor location
- (7) Power supplies (e.g. Class 1E, Non-class 1E, etc.)

- (8) Display means
- (9) Location in TSC/EOF (yes or no)
- (10) Schedules for installation/upgrading

Preparation of appropriate material to support the R.G. 1.97 (Rev. 2) CPS Compliance Report is currently underway at IP (Suppl. 1 NUREG-0737, Par. 6.2).

- f. Information regarding CPS instrumentation needs related to R.G. 1.97 (Rev. 2) compliance will provide input to the identification of the SPDS parameters.

4. SAFETY PARAMETER DISPLAY SYSTEM (SPDS) PLAN

The CPS SPDS will provide a concise primary display of critical plant variables to the control room operators to aid them in rapidly and reliably determining the safety status of the plant. In addition, the CPS SPDS may include seven secondary displays that provide more detailed information about the specific parameters on the primary display. Plant radioactivity control information will be available on the Process Radiation Monitoring (PRM) instrumentation displays in the main control room (Suppl. 1 NUREG-0737, Par. 4.1.a). The program for addressing the SPDS consists of the following steps:

- a. The CPS SPDS will be integrated into the plant Performance Monitoring System/Display Control System (PMS/DCS) process computer systems. CRT #5 on the Nuclenet Console will be dedicated to the primary SPDS display. This location is accessible, visible, and readily distinguishable from other displays. The CPS SPDS is a self-monitoring system which alerts the operators to system malfunctions or when there exists a condition of degradation in the safety parameters of the plant (Suppl. 1 NUREG-0737, Par. 4.1.b). A brief introduction of the SPDS implementation on the BWR Nuclenet was presented to the NRC in July 1981 by the Nuclenet Owners' Group.
- b. The DCS/PMS (of which SPDS will be a part) is not Class 1E, single failure proof, nor designed to function during seismic events. The CPS SPDS is adequately isolated from plant safety systems (Suppl. 1 NUREG-0737, Par. 4.1.c).

c. An acceptable SPDS Validation & Verification (V & V) Program will be developed for CPS. There are various industry documents available (NSAC, INPO, NUREG's, etc.) that will be used as guidance in establishing an appropriate CPS program. As part of the validation effort, a human factor review of the CPS SPDS will be performed by IP. The SPDS displays will be reviewed to incorporate accepted human factors principles (NUREG-0700 and NUREG-0835) so that the displayed information can be readily perceived and comprehended by SPDS users (Suppl. 1 NUREG-0737, Par. 4.1.e).

d. The following general information categories will be provided on the CPS SPDS:

- (1) Reactivity Control
- (2) Reactor Core Cooling and heat removal for the primary system
- (3) Reactor coolant system conditions and integrity
- (4) Containment system conditions and integrity

Information related to plant radioactivity control is provided to plant operators via Process Radiation Monitoring (PRM) instrumentation in the main control room (Suppl. 1 NUREG-0737, Par. 4.1.f). The information reflected in such NRC staff documents as NUREG-0696 and R.G. 1.97 (Rev. 2) will be reviewed to establish the information that will be displayed on the CPS SPDS (Suppl. 1 NUREG-0737, Par. 4.1.d).

e. IP requests that an SPDS pre-implementation review be conducted by the NRC. This will involve the Staff's review of the CPS SPDS Pre-implementation Package which will include the following:

- (1) Description of the CPS SPDS V & V Program
- (2) Results of the IP SPDS validation and human factors review

- (3) SPDS Safety Analysis Report describing the basis for which the SPDS parameters were selected. IP will review the SPDS system (parameters) in accordance with the CPS Technical Specifications to determine whether unreviewed safety questions exist or a change in Technical Specifications is required. The results of this review will be included in the SPDS Safety Analysis Report (Suppl. 1 NUREG-0737, Pars. 4.2.a and 4.2.b).
- f. An SPDS Operator Training Program will be established to train the CPS operators in the use of the SPDS. The plant operators will be encouraged to offer recommendations about how the SPDS might be improved.
- g. The results of the SER issued by the NRC, following their review of the CPS SPDS Pre-implementation Package, will be factored into the final SPDS design and operator training program, where appropriate.

5. EMERGENCY RESPONSE FACILITIES (ERF) PLAN

Construction is underway on the CPS Technical Support Center and Operational Support Center. The structure that will house the Primary Emergency Operations Facility has been designated and construction is expected to begin in May 1983. The CPS ERFs will consist of the following:

- (1) Technical Support Center (TSC) - function is to provide overall plant management and technical assistance to the main control room (MCR)
- (2) Operational Support Center (OSC) - function is to provide an assembly area for operations support personnel
- (3) Emergency Operations Facility (EOF) - function is to provide overall management and offsite interface. IP has chosen the two facility option for the EOF. The primary EOF will be located in Warehouse #1 which is just outside the perimeter of the CPS security fence.

Equipment and other provisions for the CPS ERFs are described in the CPS Emergency Plan, CPS FSAR Appendix 13.B and Procedure No. 0AP1890.00S). The requirements of 10CFR50.47 and 10CFR50, Appendix E, Paragraph IV.E are also discussed in the CPS Emergency Plan (Suppl. 1 NUREG-0737, Par. 8.1). The program for addressing the ERFs consists of the following:

- a. IP will conduct a human factors review of the design and proposed layout for the ERFs to ensure the ERFs can effectively accomplish their respective design functions.
- b. As a result of the various reviews of SPDS, R.G. 1.97 (Rev. 2), and EPG instrumentation requirements, a determination of the various plant data parameters that need to be displayed in the TSC and EOF will be made (Suppl. 1 NUREG-0737, Pars. 8.2.1 and 8.4.1).
- c. An ERF Design Summary Report will be prepared and submitted to the NRC Staff. This report will address the design of the CPS Primary EOF, Back-up EOF, TSC, and OSC relative to the following areas (Suppl. 1 NUREG-0737, Par. 8.2, 8.3, and 8.4):
 - (1) locations
 - (2) accommodations and layouts
 - (3) structural considerations
 - (4) environmental control
 - (5) radiological protection and monitoring equipment
 - (6) communications provisions
 - (7) data collection, storage, analysis, and display
 - (8) provisions for accurate, complete, and current plant records storage and access
 - (9) facility staffing requirements
 - (10) offsite dose projection capabilities
 - (11) electrical power requirements

- d. A plant training program will be established that will provide training to those individuals who will be assigned to the various ERFs in the event they are activated.
- e. Appropriate reviews of CPS Technical Specifications, the CPS FSAR, and the CPS Emergency Plan will be conducted, as information on the ERFs design becomes available, so as to provide revised material to support the CPS licensing effort.
- f. The results of the NRC review of the ERF Design Summary Report will be factored into the final ERFs design and corresponding training programs, where appropriate.

EMERGENCY RESPONSE CAPABILITY SUBMITTALS

1. UPGRADE EMERGENCY OPERATIONS PROCEDURES

- a) Procedures Generation Package (Suppl. 1 NUREG-0737 Par. 7.2.b) - Submittal date will be supplied in June 1983.

2. DETAILED CONTROL ROOM DESIGN REVIEW

- a) Program Plan (Suppl. 1 NUREG-0737 Par. 5.2.a) - Submittal date will be supplied in June 1983.
- b) Summary Report (Suppl. 1 NUREG-0737 Par 5.2.b) - Submittal date will be supplied in June 1983.

3. REGULATORY GUIDE 1.97 REV.2

- a) R.G. 1.97 Compliance Report (Suppl. 1 NUREG-0737 Par. 6.2) - June 30, 1983.

4. SAFETY PARAMETER DISPLAY SYSTEM

- a) NRC SPDS Pre-implementation Review Package - includes SPDS Safety Analysis, SPDS V&V Program, and Results of IP's SPDS Validation/Human Factors Review (Suppl. 1 NUREG-0737 Pars. 4.2.a & 4.2.b). - Submittal date will be supplied in June 1983.

5. EMERGENCY RESPONSE FACILITIES

- a) ERFs Design Report - June 1, 1983.

MATRIX OF IP RESPONSE FOR EMERGENCY RESPONSE CAPABILITY (ERC)

A. The following items are requested by Supplement 1 to NUREG 0737 in the April 15th Submittal:

	<u>IP April 15th Response</u>	<u>Supplement 1 to NUREG-0737</u>
1. A proposed schedule for implementation of ERC.	The cover letter states that the Implementation Schedule will be provided in June 1983 due to reevaluating fuel load.	Generic Letter 82-33
2. A description of licensees plan for phased implementation of ERC	The description of phased implementation is included in Attachments 1 and 2.	Generic Letter 82-33

B. The following submittals are requested by Supplement 1 but are not required to be part of the April 15th Submittal:

1. Emergency Operating Procedures (EOPs) Procedure Generation Package (PGP)	Addressed in Attachment 2 (EOP Plan) and Attachment 3.	7.2.b
2. EOP Technical Guidelines	Addressed in Attachment 2 (EOP Plan) and will be submitted as part of the PGP.	7.2.a
3. Regulatory Guide 1.97 Report	Addressed in Attachment 2 (R.G. 1.97 Plan) and Attachment 3.	6.2
4. SPDS Safety Analysis Report	Addressed in Attachment 2 (SPDS Plan) and Attachment 3.	4.2.a
5. CRDR Program Plan	Addressed in Attachment 2 (CRDR Plan) and Attachment 3.	5.2.a
6. CRDR Summary Report	Addressed in Attachment 2 (CRDR Plan) and Attachment 3.	5.2.b

The following submittals are not required, but will be provided by IP:

IP April 15th Response

Supplement 1
to NUREG-0737

- | | | | |
|----|---|---|----------------------|
| 1. | SPDS Pre-implementation Review Package (includes Safety Analysis) | Addressed in Attachment 2 (SPDS Plan) and Attachment 3. | 4.2.b |
| 2. | ERF Design Report | Addressed in Attachment 2 (ERF Plan) and Attachment 3. | 8.4.2 |
| C. | For each of the ERC initiatives the following items are requested by Supplement 1 to be included in the April 15th Submittal: | | |
| 1. | EOPs | | |
| a. | Current status of EOP upgrade development | Addressed in Attachment 2 (EOP Plan). | NRC Workshop Agenda |
| b. | Date for implementing EOPs | To be provided in June 1983 in the Implementation Schedule. | Generic Letter 82-33 |
| c. | Submittal date for PGP | To be provided in June 1983 in the Implementation Schedule. | 7.2.b |
| 2. | CRDR | | |
| a. | Provide current status of DCRDR | Addressed in Attachment 2 (CRDR Plan) | NRC Workshop Agenda |
| b. | Provide date for CRDR Program Plan | To be provided in June 1983 in the Implementation Schedule. | 5.2.a |
| c. | Provide date for Summary Report | To be provided in June 1983 in the Implementation Schedule. | 5.2.b |

IP April 15th Response

Supplement 1
to NUREG-0737

3. Regulatory Guide 1.97

- a. Provide schedule for implementing the requirements of the Reg. Guide

To be provided in June 1983
in the Implementation Schedule

Generic Letter

4. SPDS

- a. Provide current status of SPDS design

Addressed in Attachment 2
(SPDS Plan)

NRC Workshop Agenda

- b. Provide date for SPDS Safety Analysis Submittal

To be provided in June 1983
in the Implementation Schedule

4.2

- c. Provide date when SPDS will be operable/operators trained

To be provided in June 1983
in the Implementation Schedule

4.3

- d. Indicate if utility desires preimplementation review and provide dates for:

To be provided in June 1983
in the Implementation Schedule

4.2.b

i. Start of NRC review

ii. Completion of Verification and Validation Program

iii. Desired completion of NRC review

- e. Proposed integrated schedule for implementation in which SPDS design is an input to other initiatives.

To be provided in June 1983
in the Implementation Schedule

4.3

IP April 15th Response

Supplement 1
to NUREG-0737

5. ERF

- a. Projected completion dates
for fully functional TSC,
OSC & EOF

To be provided in June 1983
in the Implementation Schedule

Generic Letter 82-33

6. Training

- a. Date for completion of
training for ERC activities

To be provided in June 1983
in the Implementation Schedule

NRC Workshop Agenda

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