

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

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 AUTH. NAME: AUTHOR AFFILIATION
 ROOT, L.D. Iowa Electric Light & Power Co.
 RECIP. NAME: RECIPIENT AFFILIATION
 DENTON, H.R. Office of Nuclear Reactor Regulation, Director

SUBJECT: Forwards info re conceptual design for emergency response facilities, in response to Generic Ltr 81-10. Master work plan should be ready for discussion by 820115 & for filing by 820215.

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 TITLE: Emergency Plan Information/NURG 0696 Comments

NOTES:

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	NRCI PDRI	1	1	NSIC 05	1	1
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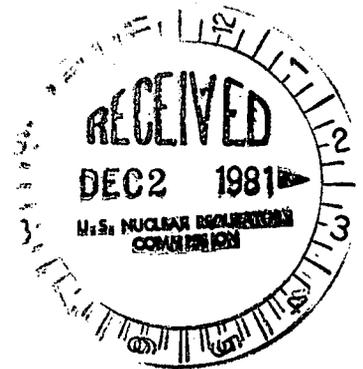
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Iowa Electric Light and Power Company

November 30, 1981
LDR-81-329

LARRY D. ROOT
ASSISTANT VICE PRESIDENT
OF NUCLEAR DIVISION



50-331

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

Dear Mr. Denton:

Generic Letter 81-10 requested the conceptual design for Emergency Response Facilities and confirmation that implementation dates contained therein would be met. A partial response was provided in our letter LDR-81-197 dated June 26, 1981. Our letter LDR-81-291 dated October 2, 1981 advised you that our response would be delayed until January 1, 1982.

Enclosed herewith is our present conceptual design as requested. This submittal does not, however, provide the confirmation of implementation dates requested.

Due to the multiplicity of NRC requirements arising from TMI-2 which involve major changes in the DAEC or its operation, Iowa Electric has undertaken the development of an integrated program, including schedule of modifications to implement principal work items including those of the TMI Action Plan. All outstanding, major regulatory requirements are being integrated into this master work plan. The plan is being developed to assure that work is safely managed, assure that work is within the capability of available technical and managerial support, reduce the probability of a modification having negative impact on safety, and integrate the various requirements to efficiently distribute the workload and minimize critical path problems.

We expect this master work plan to be sufficiently advanced by January 15, 1982 to allow us to discuss it with your staff and to file a description of the plan with you by February 15, 1982.

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The schedule developed, as stated previously, is being based on existing requirements. Any further major requirements would, of necessity, affect the schedule. We will shortly schedule a meeting to discuss the plan with your staff in detail.

Very truly yours,

A. W. McDangley
for Larry D. Root
Assistant Vice President
Nuclear Generation

LDR/kmh

Enclosure

cc: K. Meyer
D. Arnold
L. Liu
S. Tuthill
K. Eccleston (NRC)
NRC Resident Office

Enclosure to LDR-81-329 dated November 30, 1981

Documentation Required

REQUEST:

- (1) Task functions of the individuals required to report to the TSC and EOF upon activation and for each emergency class; and

RESPONSE:

- (1) This information is contained in the DAEC Emergency Plan and Corporate Emergency Response Plan which have previously been submitted to the NRC. Minor modifications are being made in response to the NRC Emergency Preparedness Appraisal and as a result of experience gained on our October 28, 1981 exercise.

REQUEST:

- (2) Descriptions of TSC instrumentation, instrument quality, instrument accuracy and reliability.

RESPONSE:

- (2) Iowa Electric's concept for satisfying the requirements of NUREG-0696 is to provide an integrated, complete Emergency Response Facility (ERF) data system. The conceptual design does not call for any plant instrumentation dedicated solely to the Technical Support Center (TSC). We are evaluating the potential benefits from additional or improved meteorological instrumentation. The ERF data system will digitize the signals supplied to a selected portion of the instrumentation in the control room. The number of signals to be digitized for the ERF data system is not yet firm. Signal digitization will be accomplished in such a manner as to not affect the signals supplied to the control room instrumentation. Once these inputs are integrated into the ERF data system, identical instrumentation information will be available for display in the control room, TSC, and EOF via color graphics displays. This concept is consistent with the concept shown in Figure 2 of NUREG-0696.

In light of this information there is no "TSC instrumentation" other than computer peripherals.

The ERF data system, which reproduces a portion of the control room indications, will be based on a Digital Equipment Corporation VAX 11/780. This computer is presently installed as a fuels management computer. It is expected to be in full operation as a fuels computer in late 1982. In addition, the functions presently performed by the plant process computer will be assumed by the VAX 11/780. Tasks will be prioritized to assure that ERF functions are performed before others.

The ERF data system will be designed to provide accuracy which is not significantly less than the accuracy of comparable data displayed in the control room. All components of the system will be of high quality industrial design.

The single VAX 11/780 and supporting computer peripherals will be configured for a data system reliability goal of 99%. All signals to be measured by the ERF data system will be isolated from safety system equipment. Where possible, these signals will be measured on the non-Class 1E side of existing isolators. When required, isolation will be installed as part of the ERF data system equipment.

REQUEST:

- (3) Descriptions of TSC power supply systems, power supply quality, reliability and availability, and consequences of power supply interruption.

RESPONSE:

- (3) Loss of TSC power will not affect the ERF data system. Power for the ERF data system terminals located in the TSC, as well as the host computer in the control room, will be supplied from a high quality, battery backed up, uninterruptible power source with automatic switchover to an alternate source.

In the unlikely event of complete power interruption to the ERF data system, data collection would, of course, cease. Some manual action will be required to re-start the computer systems upon restoration of power.

Precautions will be taken in design to insure that loss of power to ERF data system equipment does not degrade control room indications.

REQUEST:

- (4) Descriptions of the design of the TSC data display systems, plant records and data available and record management systems.

RESPONSE:

- (4) The TSC data display system equipment will consist of a sufficient number of CRT's and printout devices to allow TSC personnel to adequately perform their assigned tasks. The CRT display will be of the general purpose type such that personnel can request a variety of displays.

1. SPDS Displays

1.1 Top Level Display

The top level display indicates current status of key safety parameters. In addition, it directs the operator to lower level displays for examination of parameters related to individual safety functions.

1.2 Lower Level Displays

The lower level displays will consist of pre-assigned groups of parameters indicative of accomplishment of key safety functions.

At the present time, details of SPDS display format and content are being studied by various industry groups, including NSAC and GE BWR Owners' Group. Iowa Electric Light and Power Company is participating in the BWR Owners' Group development of suitable display formats and content. Testing of the display system is scheduled to be completed in 1982. The display system is being tested on a simulator, with further refinements being made as necessary. Upon completion of the testing, the BWR Owners' Group will make recommendations for the design of the display system. The BWR's Owners' Group is in communication with your staff.

2. System Trend Displays

The operator will be able to select, from a "menu" of parameters, and signals to be displayed on the CRT screen in a strip chart format. The strip chart format will be useful for monitoring plant progress through transient conditions. Pre-assigned groups and some operator assignable groups of parameters will be available.

3. Current Value or Status Displays

Major plant systems will be mimicked on the CRT screen in a format familiar to operators. Regulatory Guide 1.97 parameters originating within the system selected for display will have their current values displayed on the screen. To the extent information is available to the ERF data system, equipment status will be shown, i.e., valves opened or closed, pumps running, etc.

4. Point Value Display

The status of any input to the data system can be interrogated from any of the alpha-numeric keyboards supplied with the color graphics displays.

A hard copier will be provided which, on demand, will produce a permanent record of any CRT display. A line printer will be provided for reports, such as event sequences, system messages, and non-ERF related output.

The Technical Support Center (TSC) personnel have ready access to Operational Specifications and Procedures that include but are not limited to the following:

Plant Technical Specifications, Plant Operating Procedures, Emergency Operating Procedures, Final Safety Analysis Report (FSAR), and Plant Operating Records. They also have a set of as-built drawings, schematics, and diagrams showing conditions of plant structures and systems down to the component level, and in-plant locations of these systems.

REQUEST:

- (5) Descriptions of the data transmission system to be installed between the TSC and control room.

RESPONSE:

- (5) Control Room information will be displayed in the Technical Support Center on interactive color graphics CRTs as described in Response 2. The TSC Display Generator(s) will be loaded on the VAX 11/780 located near the Control Room. The composite video signals for generation of individual CRT screen displays will be transmitted using standard transmission equipment.

REQUEST:

- (6) Description of data to be provided to the EOF.

RESPONSE:

- (6) All data available in the TSC will be available in the EOF.