



Consumers
Power
Company

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April 13, 1983

Harold R Denton, Director
Office of Nuclear Reactor Regulation
Division of Licensing
US Nuclear Regulatory Commission
Washington, DC 20555

MIDLAND ENERGY CENTER PROJECT
MIDLAND DOCKET NOS 50-329, 50-330
RESPONSE TO GENERIC LETTER 82-33
FILE B13.3 SERIAL 21649

- References (1) NUREG-0737, Requirements for Emergency Response Capability
(Generic Letter No 82-33), December 17, 1982
- (2) NUREG-0793, Safety Evaluation Report & Supplements for Midland
Units 1 & 2, Dated May, June and October, 1982, Respectively
- (3) Letter, R B DeWitt, CP Co, to Harold R Denton, NRC,
Facility Emergency Plan Implementing Procedures, February 15, 1983

The following paragraphs provide the Midland Emergency Response Capability (ERC) information requested by the NRC Generic Letter 82-33 (Reference 1) and clarified by the Region III workshop held in Chicago on March 4, 1983. Much of the information requested by Reference (1) has already been submitted as part of the normal licensing process in support of issuances of the Midland Safety Evaluation Report and its supplements. Where Consumers Power Company has already submitted information concerning the issues of Generic Letter 82-33, those submittals are referenced. Where Consumers Power Company has not yet supplied the requested information, a timetable for submittal is indicated. It is fully expected that all enhancements will be completed prior to fuel load. Consumers Power Company will provide in a timely manner whatever information is necessary to meet that end.

For background purposes, it should be stated that in May, 1979, CP Co formed a task force to evaluate the "lessons learned from TMI." Based on this evaluation, an integrated approach to addressing the ERC issues was initiated by CP Co in February, 1981 which used the control room design review effort to integrate the human factors issue into the Safety Parameter Display System (SPDS) and the ongoing Emergency Operating Procedures (EOP's) efforts. As a

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result of our early initiatives which incorporated the NRC thinking at that time, there may be differences between our positions and the final guidance issued by the Staff. Unless we determine these differences to result in significant plant deficiencies, we will rely on the NRC commitment to make allowances for the work done in a "good faith effort."

Due to construction delays, we are presently re-evaluating the schedule for completing the Midland units. Where possible, we have given dates in this letter (Table 1) for information submittal, completion of construction, implementation of procedures, and personnel training. As the schedule for plant completion is established, it may become necessary to adjust these dates. Wherever completion dates are not given, dates relative to fuel load are provided. Within six months following our new schedule announcement, we will submit a supplement to this letter updating Table 1.

Safety Parameter Display System

The specification for the Midland SPDS has been developed by the Nuclear Steam Supply System (NSSS) vendor and is currently being programmed for implementation on the Midland plant computer. The SPDS displays have been designed to support the plant specific Abnormal Transient Operating Guidelines (ATOG), also developed by the NSSS vendor for the Midland units. The SPDS has also been integrated into the Detailed Control Room Design Review (DCRDR) to address human factors questions during both the SPDS and DCRDR reviews. Figure 1 indicates how the SPDS design has been integrated with other ERC elements such as the DCRDR, EOPs, and Integrated Training Plan.

A report describing the basis for SPDS parameter selection will be transmitted to the NRC Staff by October 1, 1983. SPDS implementation and testing on the plant computer are currently scheduled for completion by December 1, 1983. Because the Midland SPDS design work has been completed and implementation of the design is now in progress and because we feel our design has met or exceeded the Staff's guidelines, we do not anticipate a need for a pre-implementation review by the Staff.

Detailed Control Room Design Review (DCRDR)

The control room design review served as the focal point for integrating the related ERC activities and the incorporation of human factors principles. The DCRDR utilized various plant procedures and the emergency procedures to verify that controls and indications necessary to support the required activities were available in the control room. The availability and information from the SPDS were considered during the review, as was the instrumentation installed to meet the accident monitoring instrumentation requirements.

A Program Plan describing the Midland DCRDR was submitted to the Staff on January 15, 1982. In the Midland SER issued in May 1982, this issue was listed as Outstanding Item 15. A final report describing the control room improvements that will be made to enhance the man-machine human engineering aspects was submitted on March 31, 1983. The final report also identified review items which could not be completed by this date due to the plant construction status and contains a schedule for completion of these items.

Our intent is to complete the recommended modifications identified to date prior to fuel load; however, as engineering progresses, we may encounter difficulties which may delay completion until post-fuel load. If this situation occurs, we will notify the Staff in writing with a revised schedule which would include impacts on EOPs, SPDS, etc. A supplement to the final report will be written once construction status allows the unreviewed items identified in the March 31, 1983 report to be evaluated. If unsatisfactory situations are discovered, a schedule for rectification will be provided.

Regulatory Guide 1.97 (RG 1.97)

The implementation of instrumentation to address accident monitoring requirements was initiated in mid-1979, immediately following the TMI accident, and purchase orders for additional or upgraded accident monitoring instrumentation have been subsequently written. A report describing the Midland accident monitoring instrumentation and comparing its existing capability with RG 1.97, Rev 2 criteria, has been written and is presently undergoing internal review. The report will be revised to incorporate the format and information contained in the handout from the NUREG-0737, Supplement 1, workshop. The revised report will be transmitted to the Staff by August 1, 1983.

Emergency Operating Procedures (EOPs)

The Midland EOPs are currently being written using the plant specific Abnormal Transient Operating Guidelines (ATOG) as a basis. No firm date has been established for the beginning of operator training on the upgraded EOPs due to the uncertainty in the plant completion date, but training will begin at least six (6) months prior to initial fuel load. Three months prior to the start of EOP training, we will transmit to the Staff our procedures generation package. The package will contain: (1) plant specific technical guidelines, (2) a plant specific Writer's Guide to address human factors concerns, (3) an EOP validation program description which will assure compatibility with the SPDS and the control room, and (4) a brief description of the EOP training program.

The upgraded EOP's will be implemented at Midland prior to initial fuel load. This issue is identified in the Midland SER as License Condition 10.

Emergency Response Facilities (ERFs)

The Midland facilities consist of: (1) a Technical Support Center (TSC) located on site within a short walk of the control room; (2) an Operations Support Center (OSC) located on site in the administration building; and (3) an Emergency Operations Facility located off site in the CP Co Bay City Service Center approximately 18 miles from the plant. The structures for these facilities have been completed and all facilities will be fully functional (ie, all actions concerning structure, instrumentation, procedures, and trained staff completed) prior to initial fuel load.

Reference 3 describes the General Office Control Center (GOCC) which is located in Jackson, Michigan and functions as an EOF for all of CP Co's nuclear plants until the affected plant's EOF is operational. It is our goal to make the GOCC operational within one hour of an "alert" declaration at any

of the nuclear plants. The GOCC would function as an EOF from three to six hours allowing personnel from the GOCC, the affected plant, and its associated regional office time to travel to the affected plant's EOF.

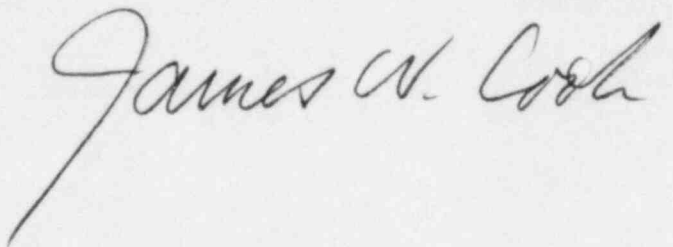
On February 19, 1982, we submitted to the NRC a report titled "Supplemental Information for the Evaluation of Emergency Response Facilities." The report provided our conceptual design for our ERF's and was written to the guidelines of NUREG-0696 and NUREG-0814. A description of the Joint Public Information Center (JPIC) was included.

NUREG-0793, Midland Safety Evaluation Report, Supplement 1, dated June, 1982 (Reference 2), discusses the Midland Site Emergency Plan (SEP) which includes the ERF's and concludes that the SEP will be acceptable on satisfactory completion of the following four (4) items: (1) the interfaces between the emergency plan for the Midland Plant and the Dow Chemical Plant; (2) meteorological and dose assessment proposals; (3) concept of operation and method of meeting the EOF staffing guidelines of NUREG-0654; and (4) the prompt notification system. CP Co has submitted the additional information needed for items (1) and (3). No additional submittals appear to be necessary at this time. All items are presently under NRC review.

Integrated Training Plan

The Midland training program will be designed to incorporate in the lesson plans the philosophies developed during the upgrading of the SPDS, DCRDR, EOP's, accident monitoring instrumentation, and the ERF's. Included in the development of the training program are: (1) a systematic analysis to determine training objectives; (2) training based on the determined objectives; (3) trainee performance evaluation during training; and (4) a provision for evaluation of on-the-job performance of trainees for feedback into the training program.

Inputs to the training program would include the basis ATOG document from which the EOP's are developed as well as a training-oriented document. Human factors principles used in enhancements of the control room and the SPDS basis document would also serve as inputs to the training program. The enhancements resulting from the SPDS and control room review efforts will be incorporated into the Midland plant-specific simulator to further aid the integrated training.



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CC RJCook, Midland Resident Inspector
RHernan, US NRC
DBMiller, Midland Construction (3)
RWHuston, Washington

CONSUMERS POWER COMPANY
Midland Units 1 and 2
Docket No 50-329, 50-330

Letter Serial 21649 Dated April 13, 1983

At the request of the Commission and pursuant to the Atomic Energy Act of 1954, and the Energy Reorganization Act of 1974, as amended and the Commission's Rules and Regulations thereunder, Consumers Power Company submits the response to NRC Generic Letter 82-33 (Requirements for Emergency Response Capability), dated December 17, 1982.

CONSUMERS POWER COMPANY

By

J W Cook
J W Cook, Vice President
Projects, Engineering and Construction

Sworn and subscribed before me this 21st day of April 1983.

Patricia A Puffer
Notary Public
Jackson County, Michigan
Bay

My Commission Expires 3-4-86

FIGURE 1
INTEGRATION OF ERC RELATED AREAS

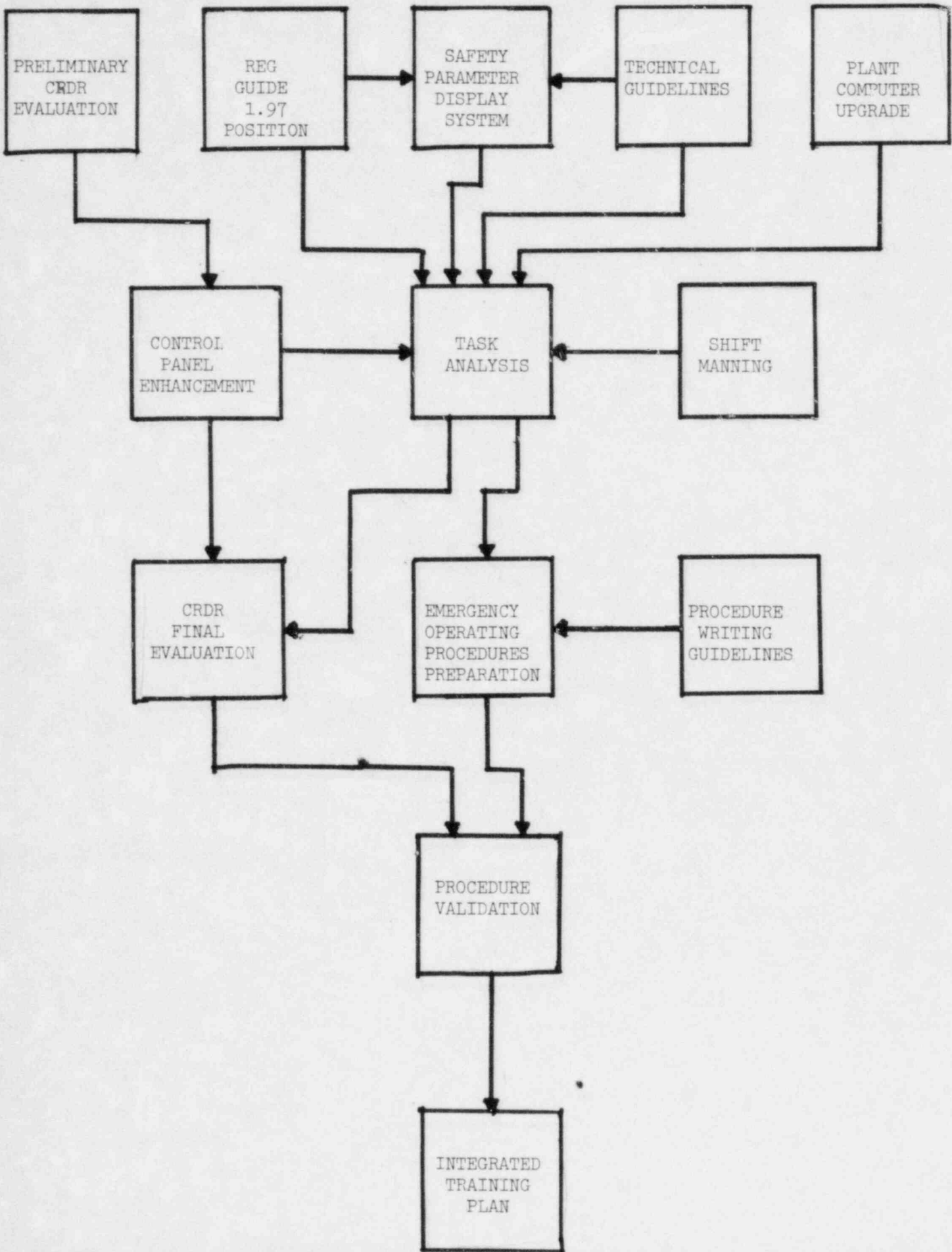


TABLE 1
MIDLAND ERC SCHEDULE

| | <u>Date</u> |
|--|-----------------------------|
| <u>SPDS</u> | |
| A. Safety Analysis Submittal | October 1, 1983 |
| B. System Operational | Dec 1, 1983 |
| C. Operators Trained | Prior to Fuel Load |
| <u>DCRDR</u> | |
| A. Submittal of Program Plan | Completed Jan 15, 1983 |
| B. Final Report Describing Control Room Improvements | Completed Mar 31, 1983 |
| C. Implementation of Recommendation | Prior to Fuel Load |
| <u>RG 1.97</u> | |
| A. Implementation Report | Aug 1, 1983 |
| B. Implementation of Recommendations | Prior to Fuel Load |
| <u>EOP's</u> | |
| A. Submittal of Technical Guidelines | 9 Months Prior to Fuel Load |
| B. Submittal of Procedures Generation Package | 9 Months Prior to Fuel Load |
| C. EOP Implementation | Prior to Fuel Load |
| <u>Integrated Training Plan</u> | |
| A. Training Completion | Prior to Fuel Load |
| <u>ERF's</u> | |
| A. Submittal of Plan | |
| 1. NUREG-0814 Response | Completed Feb 19, 1982 |
| 2. Staffing Information & GOCC Description | Completed Feb 15, 1983 |
| B. Completion Date for Fully Functional: | |
| 1. TSC | Prior to Fuel Load |
| 2. OSC | Prior to Fuel Load |
| 3. EOF | Prior to Fuel Load |
| 4. GOCC | Prior to Fuel Load |