Consumers Power Company

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Operating Reactor Branch No 5
Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Washington, DC 20555

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PALISADES PLANT - SUPPLEMENT 1 TO NUREG-0737, MILESTONE ACTIVITY - REGULATORY GUIDE 1.97 INTERIM REPORT OF DEVIATIONS

Consumers Power Company's integrated plan and schedule for completing the emergency response capabilities covered in Supplement 1 to NUREG-0737 was submitted April 14, 1983. A milestone activity addressed in the integrated plan and schedule is to provide the NRC staff with an interim report of Palisades Plant deviations from the NRC guidance provided for the Regulatory Guide 1.97 initiative. This submittal provides the interim report.

Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power Plants and Environs Conditions During and Following an Accident," provides detailed guidance on variables to be monitored, appropriate instrument ranges for specific variables, and design and qualification criteria for specific variables. Supplement 1 to NUREG-0737 instructs licensees to evaluate their plants against the provisions of Regulatory Guide 1.97, Revision 2. The report provided with this submittal uniformly evaluates the Palisades Plant instrumentation against the provisions of Revision 3. The decision for using the latest revision was based, in part, on Section 5 of Regulatory Guide 1.97, Revision 3, which states, "The revision of the guide should be issued to inform its users of the current staff position, to clarify the staff position, and to eliminate or reduce unnecessary costs incurred by trying to meet provisions that are no longer recommended." Consumers Power Company's Regulatory Guide 1.97 implementation schedule is not altered by the decision to use Revision 3.

This submittal addresses the application of Regulatory Guide 1.97 to the following emergency response facilities: a) Control Room; b) Technical Support Center (TSC); and c) Emergency Operations Facility.

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NRC Guidance, Supplement 1 to NUREG-0737, Regulatory Guide 1.97 - Control Room

Provide measurements and indication of Type A, B, C, D, and E variables listed in Regulatory Guide 1.97 (Rev 2). Individual licensees may take exceptions bas- ed on plant-specific design features. BWR incore thermocouples and continuous offsite dose monitors are not required pending their further development and consideration as requirements. It is acceptable to rely on currently installed equipment if it will measure over the range indicated in Regulatory Guide 1.97 (Rev 2), even if the equipment is presently not environmentally qualified. Eventually, all the equipment required to monitor the course of an accident would be environmentally qualified in accordance with the pending Commission rule on environmental qualification.

Provide reliable indication of the meteorological variables (wind direction, wind speed and atmospheric stability) specified in Regulatory Guide 1.97 (Rev 2) for site meteorology. No changes in existing meteorological monitoring systems are necessary if they have historically provided reliable indication of the variables that are representative of meteorological conditions in the vicinity (up to about 10 miles) of the plant site. Information on meteorological conditions for the region in which the site is located shall be available via communication with the National Weather Service. These requirements supersede the clarification of NUREG-0737, Item III.A.2.2.

Response

Regulatory Guide 1.97, Revision 3 defines Type A variables as plant-specific variables "that provide primary information needed to permit the control room operating personnel to take the specified manually-controlled actions for which no automatic control is provided and that are required for safety systems to accomplish their safety functions for design basis events." Where primary information is defined as "information that is essential for the direct accomplishment of the specified safety functions; it does not include those variables that are associated with contingency actions that may also be identified in written procedures." The Palisades Plant Type A variables are a subset of the Type B, C, D and E variables addressed below. The Palisades Plant Type A variables are identified in Attachment 4.

The variables included in Regulatory Guide 1.97, Revision 3, Types B, C, D, and E, were numbered for reference purposes. A list of the item numbers and corresponding variables are provided in Attachment 1. Attachment 2 provides a detailed list of each variable and the associated Palisades Plant instrument that measures it along with the guidelines a given instrument meets and justifications for requirements it does not meet.

Attachment 3 provides a list of unresolved discrepancies identified in the review of the Palisades Plant instrumentation against the guidelines of Regulatory Guide 1.97, Revision 3. The unresolved discrepancies are derived from the Attachment 2 evaluations. Additional information will be provided to

resolve these discrepancies. The schedule to resolve the discrepancies is as follows:

SCHEDULE TO RESOLVE REGULATORY GUIDE 1.97 CONTROL ROOM DISCREPANCIES

Phase	Activity	Scheduled Completion Date
I	Provide further analysis and justification for the plant instrumentation presently installed (Attachment 3, items 4, 7, 14, 17, 43, 49 and 58)	60 days following startup from the present refueling outage which began August 1983.
II	Identify and schedule corrective actions for those items not resolved in Phase I.	August 15, 1984
III	Submit a report to the NRC describing how the requirements of Supplement 1 to NUREG-0737 have or will be met. Include a proposed schedule to implement corrective actions which are a result of Safety Parameter Display System, Detailed Control Room Design Review, Emergency Operating Procedures and Emergency Response Facilities initiatives.	May 1985
IV	Upgrade Range of the RCS Cold Leg Temperature, RCS Hot Leg Temperature, and RCS Pressure to meet the guidelines of Regulatory Guide 1.97, Rev 3. These variables are addressed in Attachment 2, items 4, 5 and 7, respectively. The range upgrade is associated with the Inadequate Core Cooling Instrumentation modifica-	1987 Refueling Outage

tions. (Reference Consumers Power Company letter dated April 14, 1983.)

NRC Guidance, Supplement 1 to NUREG-0737, Regulatory Guide 1.97 - TSC

The Type A, B, C, D and E variables that are essential for performance of Technical Support Center (TSC) functions shall be available in the TSC.

(i) BWR incore thermocouples and continuous offsite dose monitors are not required pending their further development and consideration as requirements.

(ii) The indicators and associated circuitry shall be of reliable design but need not meet Class 1E, single-failure or seismic qualification requirements.

Response

A Critical Functions Monitoring System (CFMS) display station will be available at the TSC and will present variables that are essential for the performance of TSC functions. Attachments 2 and 4 indicate the Regulatory Guide 1.97 Type A, B, C, D and E variables that are currently proposed or implemented in the CFMS design.

Consumers Power Company's submittal dated April 14, 1983 states that Consumers Power Company will conduct a technical assessment of the CFMS that has been installed at the Palisades Plant against the NUREG criteria established for a Safety Parameter Display System. This information is currently scheduled to be submitted by July 25, 1984. The July 25, 1984 submittal will provide a detailed list of CFMS variables and an implementation schedule for those inputs proposed or available in the CFMS design.

NRC Guidance, Supplement 1 to NUREG-0737, Regulatory Guide 1.97 - EOF

(i) Those primary indicators needed to monitor containment conditions and releases of radioactivity from the plant shall be available in the EOF.

(ii) The EOF data indications and associated circuitry shall be of reliable design but need not meet Class 1E, single-failure or seismic qualification requirements.

Response

A CFMS display station will be available at the EOF and General Office Control Center (GOCC). The July 25, 1984 submittal described above will address the indicators needed to monitor containment conditions and releases of radioactivity from the plant.

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Attachments