NMC
Committed to Nuclear Excellence

Palisades Nuclear Plant
Operated by Nuclear Management Company, LLC

August 7, 2003

10 CFR 50, Appendix A

U S Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

PALISADES NUCLEAR PLANT
DOCKET 50-255
LICENSE No. DPR-20
GENERIC LETTER 2003-01: CONTROL ROOM HABITABILITY - 60-DAY RESPONSE

The Nuclear Regulatory Commission (NRC) issued the subject generic letter (GL) on June 12, 2003. The GL contains a 180-day requested response for specific information. Addressees that cannot provide the information or cannot meet the requested completion date are requested to submit a written response within 60-days to address any proposed alternative course of action, including the basis for acceptability and the schedule for completion of the alternative course of action. Nuclear Management Company, LLC (NMC) is unable to meet the 180-day completion date for the requested information for the Palisades Nuclear Plant. Accordingly, NMC is providing the requested proposed alternative course of action in Attachment 1.

NMC makes the following commitments:

1. NMC will provide the schedule to perform the ASTM E741 test and the requested response to GL 2003-01 item 1(a) for the Palisades Nuclear Plant by December 5, 2003.

2. NMC will provide the schedule for verifying by testing that the most limiting inleakage has been incorporated into the hazardous chemical assessments (GL 2003-01 item 1(b) part 1) for the Palisades Nuclear Plant by December 5, 2003.

3. NMC will provide the schedule for the smoke assessment (GL 2003-01 item 1(b) part 2) for the Palisades Nuclear Plant by December 5, 2003.

27780 Blue Star Memorial Highway • Covert, MI 49043
Telephone: 269.764.2000

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4. NMC will provide the schedule for the development of technical specification changes (and any associated plant modifications) to support requested information item 1(c) for the Palisades Nuclear Plant by December 5, 2003.

Douglas E. Cooper
Site Vice-President, Palisades Nuclear Plant

CC Regional Administrator, USNRC, Region III
Project Manager, Palisades Nuclear Plant, USNRC, NRR
NRC Resident Inspector – Palisades Nuclear Plant

Attachment

ATTACHMENT 1

NUCLEAR MANAGEMENT COMPANY
PALISADES NUCLEAR PLANT
DOCKET 50-255

GENERIC LETTER 2003-01: CONTROL ROOM HABITABILITY 60-DAY RESPONSE

5 Pages Follow

GENERIC LETTER 2003-01: CONTROL ROOM HABITABILITY

PALISADES PLANT 60-DAY RESPONSE

Requested Information

Addressees are requested to provide the following information within 180 days of the date of this generic letter.

If an addressee cannot provide the information or cannot meet the requested completion date, the addressee should submit a written response indicating this within 60 days of the date of this generic letter. The response should address any alternative course of action the addressee proposes to take, including the basis for acceptability of the proposed alternative course of action and the schedule for completing the alternative course of action.

1. *Provide confirmation that your facility's control room meets the applicable habitability regulatory requirements (e.g., GDC 1, 3, 4, 5, and 19) and that the CRHSs [control room habitability systems] are designed, constructed, configured, operated, and maintained in accordance with the facility's design and licensing bases. Emphasis should be placed on confirming:*

   (a) That the most limiting unfiltered inleakage into your CRE (and the filtered inleakage if applicable) is no more than the value assumed in your design basis radiological analyses for control room habitability. Describe how and when you performed the analyses, tests, and measurements for this confirmation.

Response

System Design, Maintenance and Testing Considerations

The Palisades control room envelope (CRE) is contained entirely within the auxiliary building and is comprised of the control room (CR), the control room viewing gallery (CRVG), the technical support center (TSC), and the mechanical equipment room (MER). All rooms within the CRE are at the same floor elevation with the exception of the MER, which is slightly higher than the adjoining areas. The CRE atmosphere is maintained by the control room ventilation system (CRVS). All major components of the CRVS are contained within the CRE, primarily in the MER. The CRVS is designed to maintain the CRE at a positive relative pressure under normal and emergency conditions. The CRVS has separate and redundant air handling units, air filtering units, condensing units, steam humidifiers, and continuous air monitors. Each train of the CRVS consists of a primary air pathway and an interconnected secondary air

pathway. The primary air pathway provides heating, cooling, recirculation, and normal ventilation requirements. The secondary air pathway provides high efficiency filtration, gas adsorption, and emergency ventilation with recirculation. The CRVS additionally provides the ability to purge the CRE with outside air at high flow rate in response to non-radiological hazards, which could be generated within the CRE.

The design and operation of the CRE and the CRVS present few vulnerabilities with respect to unfiltered inleakage. All major components of the CRVS are contained within the CRE. Only one duct that is not part of the CRVS traverses the CRE. This duct exhausts air from the cable spreading and safeguards bus switchgear rooms. Under operating procedure requirements, no ducts from unfiltered systems that penetrate the CRE are at a positive pressure (relative to the CRE) during emergency operation. Unfiltered inleakage from (normal) supply ventilation pathways are minimized through redundant low leakage isolation dampers on each train. Purge exhaust and toilet ventilation pathways are also provided with redundant low leakage isolation dampers. Routine surveillance testing of the CRVS verifies the capability of the system to maintain a positive relative pressure. Testing has confirmed the ability to pressurize the CRE to greater than 0.25 inches H_2O, which provides significant margin with respect to the Technical Specification limit of 0.125 inches H_2O.

Additional information confirming the Palisades control room meets the applicable habitability regulatory requirements (e.g., GDC 1, 3, 4, 5, and 19) and that the control room habitability systems are designed, constructed, configured, operated and maintained in accordance with the facility's design and licensing bases will be provided when the committed responses to items 1(a), (b), and (c) described below are completed.

Most Limiting Unfiltered Inleakage

Nuclear Management Company, LLC (NMC) has determined that the information requested cannot be provided until an acceptable test methodology, according to ASTM E741 and generic letter (GL) 2003-01, "Control Room Habitability," can be performed for the Palisades Nuclear Plant. Current ΔP surveillance testing provides the basis for inleakage assumptions used in design basis radiological analyses contained in the Palisades Final Safety Analysis Report (FSAR).

By letter dated August 11, 2000, Consumers Energy (the previous licensee for Palisades) described the acceptability of the current analysis of record. Consumers Energy also made a commitment to update the radiological dose analyses in accordance with new guidelines, endorsed by the NRC, when available. Consumers Energy committed to review the analyses of record in light of the new guidance and revise the analyses as required. The recently issued guidance (as described in the Discussion section of GL 2003-01) will be

considered in reviewing the analyses of record and determining the acceptance criteria for the testing.

The discussions given above provide the basis for concluding that reasonable assurance exists that the acceptance criteria for the design basis radiological analyses for control room habitability are being met.

NMC is evaluating vendor proposals to perform ASTM E741 testing for all plants within the NMC fleet. The availability of qualified vendors to perform this testing is limited, since many licensees are currently requesting similar proposals. The vendor evaluation, along with the supporting activities to prepare for the testing (such as CRE walkdowns, pre-testing maintenance, and safety analysis reassessment to establish testing acceptance criteria), is planned for the fourth quarter of 2003. Upon completion of the vendor evaluation and activities described, CRE inleakage testing will be scheduled as soon as practical for Palisades.

NMC will provide the schedule to perform the ASTM E741 test and the requested response to item 1(a) for the Palisades Nuclear Plant by December 5, 2003.

Requested Information

(b) That the most limiting inleakage into your CRE is incorporated into your hazardous chemical assessments. This inleakage may differ from the value assumed in your design basis radiological analyses. Also, confirm that the reactor control capability is maintained from either the control room or the alternate shutdown panel in the event of smoke.

Response

NMC has determined that the information cannot be provided until additional assessments and the testing described in item 1(a) is completed. There are no major sources for significant hazardous chemical releases within the vicinity of the plant. Fire protection program analyses for Palisades address the potential for smoke intrusion into the CR and plant procedures direct CR personnel responses. These procedures ensure reactor control capability is maintained from either the CR or the alternate shutdown panel, as described in the FSAR. Therefore, current hazardous chemical assessments and fire protection program guidelines described in the Palisades FSAR and plant procedures provide reasonable assurance that CRE integrity and reactor control capability will be maintained.

As indicated in the response to request 1(a), NMC is evaluating vendors and developing a schedule for performance of ASTM E741 testing to establish the

measured inleakage for the CRE. The schedule for verifying by testing that the most limiting inleakage has been incorporated into the hazardous chemical assessments (GL 2003-01 item 1(b) part 1) for the Palisades Nuclear Plant will be provided by December 5, 2003.

NMC will provide the schedule for the smoke assessment (GL 2003-01 item 1(b) part 2) for the Palisades Nuclear Plant by December 5, 2003.

Requested Information

(c) That your technical specifications verify the integrity of the CRE, and the assumed inleakage rates of potentially contaminated air. If you currently have a ΔP surveillance requirement to demonstrate CRE integrity, provide the basis for your conclusion that it remains adequate to demonstrate CRE integrity in light of the ASTM E741 testing results. If you conclude that your ΔP surveillance requirement is no longer adequate, provide a schedule for: 1) revising the surveillance requirement in your technical specification to reference an acceptable surveillance methodology (e.g., ASTM E741), and 2) making any necessary modifications to your CRE so that compliance with your new surveillance requirement can be demonstrated.

If your facility does not currently have a technical specification surveillance requirement for your CRE integrity, explain how and at what frequency you confirm your CRE integrity and why this is adequate to demonstrate CRE integrity.

Response

Palisades Technical Specifications (TS) currently contain the ΔP surveillance requirement as well as ventilation filtration program requirements that verify the integrity of the CRE. However, NMC has concluded that the ΔP surveillance requirement is no longer adequate to demonstrate CRE integrity in light of the ASTM E741 testing results.

NMC will provide the schedule for the development of technical specification changes (and any associated plant modifications) to support requested information item 1(c) for the Palisades Nuclear Plant by December 5, 2003.

Requested Information

2. *If you currently use compensatory measures to demonstrate control room habitability, describe the compensatory measures at your facility and the corrective actions needed to retire these compensatory measures.*

Response

No compensatory measures are currently being used at Palisades.

Requested Information

3. *If you believe that your facility is not required to meet either the GDC, the draft GDC, or the "Principle Design Criteria" regarding control room habitability, in addition to responding to 1 and 2 above, provide documentation (e.g., Preliminary Safety Analysis Report, Final Safety Analysis Report sections, or correspondence) of the basis for this conclusion and identify your actual requirements.*

Response

This request does not apply to Palisades.