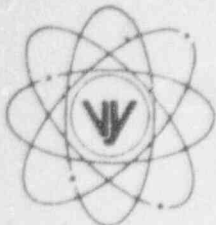


VERMONT YANKEE NUCLEAR POWER CORPORATION



Ferry Road, Brattleboro, VT 05301-7002

REPLY TO
ENGINEERING OFFICE
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BOLTON, MA 01740
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December 28, 1994
BVY 94-128

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

References: a) License No. DPR-28 (Docket No. 50-271)
b) Letter, T.E. Murley, USNRC, to E.J. Mroczka, Connecticut Yankee Atomic Power Company, dated November 27, 1987
c) Letter, USNRC to VYNPC, NVY 89-137, dated June 26, 1989
d) Letter, VYNPC to USNRC, BVY 94-100, dated October 11, 1994
e) Letter, VYNPC to USNRC, BVY 94-107, dated November 3, 1994

Subject: Request for Exemption, 10CFR, Part 50, Appendix R, Section III.J, "Emergency Lighting"

In accordance with the provisions of 10CFR, Part 50.12, Vermont Yankee Nuclear Power Corporation hereby requests an exemption from the provisions of 10CFR 50, Appendix R, Section III.J, "Emergency Lighting." Specifically, an exemption is requested from the requirement for lighting units, with eight-hour battery power supply, in outdoor areas.

In addition, Vermont Yankee requests the withdrawal of a previously approved exemption from the requirements of 10CFR 50, Appendix R, Section III.J, "Emergency Lighting." Specifically, we request withdrawal of an exemption for the use of emergency ac lighting in the Torus area of the Reactor Building.

BACKGROUND:

As outlined in References (d) and (e), Vermont Yankee recently identified that, in the event of a fire, emergency lighting units with eight-hour battery power supply were not provided in all areas requiring operation of safe shutdown equipment, and in access and egress routes thereto. With the exception of one location in the Reactor Building Torus area, Vermont Yankee had previously installed eight-hour battery powered emergency lighting in areas requiring action for alternate shutdown. An exemption was previously granted for use of Emergency Diesel Generator backed lighting for the Torus area.

Vermont Yankee is currently completing installation of additional eight-hour battery powered lighting units in all indoor areas of the plant where operator action is required and in access and egress routes thereto. Some actions, however, must be performed outdoors, or require operators to traverse outdoor areas. In these areas, Vermont Yankee intends to make use of existing Security lighting.

With regards to Torus area lighting, new indoor lighting units have been installed that allow Vermont Yankee to meet the Appendix R requirements for Torus area lighting without an exemption.

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JUSTIFICATION:

Vermont Yankee has identified two actions to be taken in outdoor areas. One action involves the manual hookup of a portable fuel oil transfer pump. Portable pump fuel oil transfer is only required in the case of a Turbine Building fire which damages the control circuits for normal fuel oil transfer to the day tanks of the Emergency Diesel Generators, or for a fire within the fuel oil transfer pump building. The procedure to establish portable pump fuel oil transfer includes action outdoors, within the protected area of the plant. This area is well lit with existing Security lighting.

The other outdoor action is at the Northwest Cooling Tower valve pit. Action in this area would be required if there were a fire in the Intake Structure which disables the Service Water pumps. The procedure to establish alternate cooling involves valve manipulation at the valve pit. Normal, as well as eight-hour battery powered lighting has been provided at the valve pit to permit operators to perform the necessary actions. Since the valve pit is located at the cooling tower, however, operators would either drive the vehicle designated for their use, or walk to the location. Walking can be accomplished safely because of the illumination provided by the Security lighting along the perimeter of the protected area. This has been confirmed by measurements of illumination levels utilizing the criteria contained in 10CFR73.55, Section (c)(5).

Plant Security lighting is supplied from a backup power source. This power supply is not vulnerable to a fire which would necessitate the actions in the outdoor areas defined above. In addition, the Security lighting is inspected and maintained as part of plant security requirements.

Reference b) provides details of an exemption from the technical requirements of Section III.J. of Appendix R to 10CFR Part 50. This exemption was provided to the Connecticut Yankee Nuclear Plant for use of Security lighting in lieu of eight-hour battery powered lighting in outdoor areas needed for safe shutdown and in access and egress routes thereto.

Vermont Yankee is currently completing installation of additional eight-hour battery supplied lighting units in all indoor areas of the plant where operator action is required, and in access and egress routes thereto. As part of this effort, lights have been installed in the vicinity of valves RHR-38A and RHR-66 in the Torus area of the Reactor Building. These valves must be checked closed as part of our alternate shutdown procedure. Vermont Yankee has relied upon emergency ac lighting to provide the necessary illumination to perform this task. An exemption from the requirement for eight-hour battery powered lighting was previously received, Reference c). Vermont Yankee no longer relies upon the emergency ac lighting in the vicinity of these valves to meet the intent of 10CFR 50, Appendix R, Section III.J.

SPECIAL CIRCUMSTANCES:

Special circumstances, as defined in 10CFR, Part 50.12,a(2)(ii), are present which warrant granting of an exemption from the requirements of the regulation. By making use of existing diesel generator backed Security lighting in outdoor areas, Vermont Yankee believes that the underlying purpose of 10CFR, Part 50, Appendix R, Section III.J is achieved. The public health and safety is protected in a fashion equivalent to that resulting from compliance with the specific requirements of the regulation.

CONCLUSION:

Based upon the technical justification and special circumstances detailed above, Vermont Yankee requests an exemption from the requirements of 10CFR, Part 50, Appendix R, Section III.J, "Emergency Lighting." The exemption requested is for the use of security lighting for two outdoor areas of the plant where operators may be required to perform safe shutdown actions and in access and egress routes thereto.

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Vermont Yankee also requests withdrawal of a previously approved exemption from the requirements of 10CFR50, Appendix R, Section III.J, "Emergency Lighting". This exemption was approved for the use of emergency ac lighting in the Torus area of the Reactor Building.

We trust that our request is acceptable; however, should you have any questions on this matter, please contact us.

Sincerely,

Vermont Yankee Nuclear Power Corporation



Donald A. Reid
Vice President, Operations

cc: USNRC Region 1 Administrator
USNRC Resident Inspector - VYNPS
USNRC Project Manager - VYNPS