



**Consumers
Power
Company**

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July 21, 1982

Dennis M Crutchfield, Chief
Operating Reactor Branch No 5
Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Washington, DC 20555

DOCKET 50-255 - LICENSE DPR-20 -
PALISADES PLANT - SEP TOPIC III-7.C, DELAMINATION OF PRESTRESSED CONCRETE
CONTAINMENT STRUCTURES

By letters dated February 16, 1982 and March 31, 1982, Consumers Power Company agreed to perform an additional inspection of the containment building dome to verify that delamination has not occurred. The purpose of this letter is to report completion of that test and provide comments on the need for future tests.

The inspection for containment dome delamination was performed in early June using methodology similar to the previous delamination test in 1970. A portion of the test was witnessed by USNRC Region III personnel. As in the 1970 examination, no areas of delamination were observed.

With this test a second data point is now available to show that no delamination has occurred over approximately the first one-third of plant life. It has been discussed at some length with the NRC staff that if the dome were susceptible to delamination, it would be expected to occur shortly after initial prestressing when the forces which might cause delamination are the highest over plant life, and the strength of the dome concrete is reduced. This is recognized by the staff in the SER for this topic dated May 21, 1981. Since the prestress is now lower than it was in 1970 due to normal tendon relaxation, and since the concrete should now be substantially stronger, it was highly unlikely that delamination would be found in the current test, and it is even less likely that delamination could occur in the future. This examination has simply reinforced our previous conclusion that future delamination testing is unwarranted.

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Also the cost and difficulty of routine additional inspections is not considered warranted. The dome is now covered with a rubbery neoprene-hypalon coating to protect the concrete surface and minimize potential ingress of water. This coating would have to be stripped and reapplied each time a future delamination test were performed. The minimal safety benefit to be gained by additional tests would not warrant this expenditure of resources.

During the NRC-CPCo discussions on the Palisades Integrated Assessment, Consumers Power Company agreed to propose a Technical Specification change which would require an additional dome delamination inspection in the event that a corrective retensioning program were ever required for 5% or more of the total number of dome tendons installed. Although we still disagree with the need for such a requirement (particularly since corrective retensioning would only restore the affected tendons to the forces predicted in plant life after expected relaxation), it is still our intent to propose such a change. This proposed change is expected to be submitted in the near future.



Robert A Vincent
Staff Licensing Engineer

CC Administrator, Region III, USNRC
NRC Resident Inspector - Palisades