



**Consumers
Power**

**POWERING
MICHIGAN'S PROGRESS**

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May 15, 1987

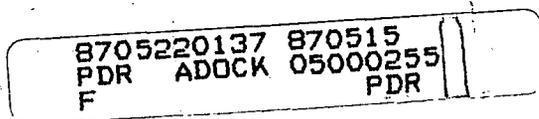
Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT -
BULLETPROOF FIRE DOORS - 10CFR50, APPENDIX R - FIRE PROTECTION

Consumers Power Company's July 26, 1985 submittal stated that after the bulletproof fire doors at Palisades were evaluated by a nationally recognized fire protection engineering group, Consumers Power Company would submit documentation to the NRC to enable the staff to evaluate Consumers Power Company's determination that Palisades bulletproof fire doors are equivalent to 3-hour rated fire doors. The Palisades bulletproof fire doors are similar to those successfully tested for 3-hour rating by Underwriters Laboratories (UL), for Wisconsin Electric Power Company (WEPCO), except the Palisades bulletproof fire doors have a different type handle and an additional emergency release handle.

Underwriters Laboratories has inspected the Palisades bulletproof fire doors and stated that Consumer Power Company should determine their similarity to the WEPCO doors. Our determination of similarity was reported in our July 26, 1985 submittal and is reiterated above.

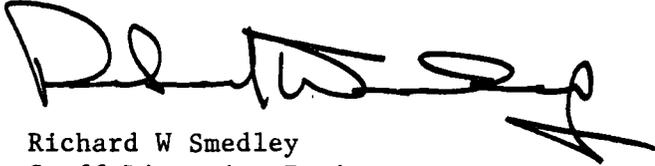
Attached is an analysis which determines that the dissimilarity between Consumers Power Company and WEPCO doors does not diminish the 3-hour rating of the Palisades doors.



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This letter closes existing Consumers Power Company commitments regarding
bulletproof fire doors.

A handwritten signature in black ink, appearing to read 'R. W. Smedley', with a long horizontal line extending to the right and a small flourish at the end.

Richard W Smedley
Staff Licensing Engineer

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

Attachment

ATTACHMENT

Consumers Power Company
Palisades Plant
Docket 50-255

ANALYSIS
CONDUIT & CABLE ATTACHED TO
PALISADES BULLET RESISTANT DOORS

May 15, 1987

ANALYSIS
CONDUIT AND CABLE ATTACHED TO PALISADES
BULLET RESISTIVE DOORS

There are four bullet resistive/fire resistive doors at Palisades that protect the Control Room, Cable Spreading Room and Northeast Electrical Penetration Room. For security reasons, various hardware, conduit and cable have been attached to the doors. This does not diminish the fire rating of these doors for the following reasons:

1. The doors are 3-hour fire doors that have been modified by welding and bolting armor steel plate to them. Fire tests for similarly modified doors have shown that the fire resistance of the modified doors is still three hours.

In addition, cable and conduit have been attached to the doors using sheet metal screws. These screws are into the steel plate and not into the fire door portion. Thus, the fire door is not degraded.

2. Where the conduit does penetrate the steel plate it has been welded to the plate. This creates a solid metal plug for the opening and does not degrade the fire resistance.
3. Other security hardware is attached to the steel using the same method described in item 1. Again, this causes no degradation for the same reasons.
4. The combustible loading outside of these doors is extremely light to nonexistent. It is not possible for any fire outside these doors to be of such intensity to even threaten the doors. Thus, the door's three-hour fire resistance is many times more than is necessary.
5. On the inside of the doors a small cable penetrates the steel just below the latch. The holes are small and do not go completely through the doors. The area of the hole is much less than what is allowed by NFPA 80 for gaps between and under doors. The holes are on the inside away from any threatening exposure fire. The holes do not degrade the fire rating.
6. In some places, conduit penetrates the door frames through tightly fitting holes. There is no through hole because the conduit contacts the frame. Underwriters' Laboratories has stated that as long as there are no through open holes in the frame there is no significant degradation.

In conclusion, the cable and conduit attached to the four security doors does not degrade the fire resistance of the doors.

Analysis by E A Dorbeck, FPE, PE, Member of the Society of Fire Protection Engineers.