



A Centron Energy Company

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Docket Number 50-346

License Number NPF-3

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United States Nuclear Regulatory Commission  
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Subject: Use of Temporary Containment Personnel Airlock Doors During  
Refueling Operations

Gentlemen:

During the Davis-Besse Nuclear Power Station (DBNPS), Unit Number 1 fifth refueling outage in 1988, DBNPS utilized temporary containment personnel airlock doors during refueling (Mode 6) operations involving core alterations or movement of irradiated fuel within containment. This concept for meeting Technical Specification (TS) 3.9.4 requirements (i.e., one door in the airlock must be closed during core alterations or movement of irradiated fuel within containment during refueling operations) was discussed with the Nuclear Regulatory Commission (NRC)/Nuclear Reactor Regulation (NRR) Senior Project Manager for DBNPS on May 26, 1988, prior to its implementation during the fifth refueling outage. Justification for the use of the temporary doors in lieu of the normal airlock doors was provided as follows:

- 1) frequent opening and closing of the normal airlock doors during refueling operations can cause damage to the latching mechanisms. and
- 2) temporary doors, by the design considerations, provide the necessary barrier for mitigating the consequences of a fuel handling accident in containment.

The NRC/NRR Senior Project Manager for DBNPS agreed that the use of the temporary doors during the fifth refueling outage met the provisions and intent of TS 3.9.4.

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The future use of temporary containment personnel airlock doors during refueling operations has been evaluated by Toledo Edison pursuant to the requirements of 10CFR50.59, and has resulted in the decision to use the temporary doors during the upcoming sixth refueling outage (scheduled to begin February 1, 1990) and in future refueling outages. The safety evaluation conducted pursuant to requirement of 10CFR50.59 has concluded that the temporary doors are effective in precluding the potential damage to the normal airlock door latching mechanisms during periods of frequent openings and closings and provide the necessary barrier for mitigating the consequences of a fuel handling accident in Mode 6 when the potential for containment pressurization does not exist. The Davis-Besse Updated Safety Analysis Report (USAR), Section 15.4.7.3, addresses a fuel handling accident inside containment. No credit is taken for containment isolation. Thus, the use of temporary doors will not affect the USAR analyses.

The temporary doors will not be used during reduced reactor coolant inventory operations as discussed in Generic Letter Number 88-17.

The design considerations incorporated for use of the temporary doors are as follows:

- 1) The temporary doors will be solid wooden doors, with wireglass windows, mounted in a structural steel frame attached to the airlock bulkhead. Joints and seams will be caulked to seal the assembly. Installation details will not preclude the capability for closing the normal containment personnel airlock doors.
- 2) Only one door will be able to be opened at a time during core alterations or movement of irradiated fuel within containment due to incorporation of an electrical interlock. Administrative controls provide for stationing of a dedicated individual(s) near the doors to further ensure both doors will not be opened simultaneously during core alterations or movement of irradiated fuel within containment.
- 3) Post installation check of proper fit of each door and its associated gasket will be performed to assure that uncontrolled release of radioactivity will not occur. In addition, a temporary airborne radiation monitor will be installed in the auxiliary building near the personnel airlock.
- 4) The temporary doors will be removed from the airlocks prior to a return to Mode 4.

The temporary doors will be tested for proper interlock operation prior to declaring the doors operational.

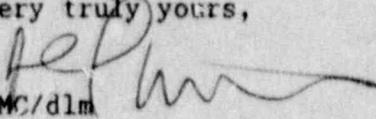
In the unlikely event that at least one of the temporary airlock doors is not closed during core alterations or movement of irradiated fuel within containment, the Action of TS 3.9.4 will be followed.

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Based on the above, Toledo Edison has concluded that the use of temporary doors at the containment personnel airlocks is acceptable and satisfies the requirements of TS 3.9.4.

If you have any comments concerning the above, please contact Mr. R. W. Schrauder, Manager - Nuclear Licensing, at (419) 249-2366.

Very truly yours,

  
RMC/dlm

cc: P. M. Byron, DB-1 NRC Senior Resident Inspector  
A. B. Davis, Regional Administrator, NRC Region III  
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