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June 17, 1983

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DOCKET 50-255 - LICENSE DPR-20 -  
PALISADES PLANT - NUREG-0737 ITEM II.F.1.1 - "NOBLE GAS EFFLUENT MONITOR  
SUPPLEMENT"

Consumers Power Company letter dated February 2, 1983 stated that an alternative to automatic isolation of the V-79 exhaust system when radiation is detected. The information contained in this supplement letter explains why alternatives to the originally proposed modification were investigated, the objectives of the investigation, and the conclusions.

The reasons for pursuing alternatives to the originally proposed modification of the Auxiliary Building for V-79 are explained below.

1. Possible overloading of the existing ventilation system.

As proposed in the original modification, the discharge of the V-79 fan would have been routed to the suction of the V-6A and V-6B fans. A review of the current design flows for the Auxiliary Building ventilation shows that the addition of the V-79 flow would require V-6A or V-6B to operate above their rated capacity. As a result, either both fans would be required to operate at all times, or V-6A and V-6B would be replaced with fans of sufficient capacity to provide the additional ventilation flow.

2. Originally proposed modification did not satisfy the objectives of NUREG-0737 Item II.F.1.1.

The requirement to monitor all potential release paths would not necessarily be met by the originally proposed modification since several other areas exist which represent a potential

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discharge path. Therefore, in the event of a high energy line break accident, ventilation provided by the modified V-79 fan would probably not be effective.

In light of these concerns, a review of potential sources of radioactivity release to the room serviced by the V-79 fan (ie, Component Cooling Room) and the identification of unmonitored release paths was undertaken. The following potential sources of release were identified and evaluated.

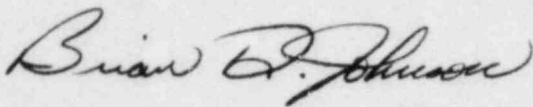
- a. Main Steam Lines - The event of a main steam line break or lifting of the steam generator relief valves would create the potential for the release of radioactive steam to the Component Cooling Room. The main steam lines, however, have now been provided with on-line monitoring capabilities. In addition, the relief valve stacks are monitored by detectors. Therefore, since these potential release paths are monitored, any modification of the V-79 fan would not provide a significant increase in surveillance capabilities.
- b. Containment Purge Lines - These purge lines are currently routed directly to the Plant stack which is provided with radiation monitors. Also, the release of radioactivity inside containment, ie, the origin of radioactivity in the containment purge lines, is monitored. Therefore, this potential release source appears to be adequately monitored without the need for modifications to the V-79 fan.
- c. Safety Injection Refueling Water (SIRW) Tank Recirculation/Heat Exchanger - This component is considered a source of low-level radioactivity release only since the SIRW tank is currently vented to the atmosphere. Accordingly, any leakage in the Component Cooling Room would not constitute a release problem that would require monitoring this release path.
- d. Component Cooling Room Equipment Drains - There is a concern that equipment and floor drains from various areas within the Auxiliary Building could backup into the Component Cooling Room. If this were to occur during a major accident, a potential for the unmonitored release from highly contaminated water to the atmosphere could exist. The drain system is the only available path for highly contaminated water to enter this room since all doors are water tight.

As a result of these evaluations, Consumers Power Company intends to reroute floor drains such that the drains could be isolated in the event of an accident. This modification is expected to be complete by then end of the

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1983 Refueling Outage, scheduled to begin August 13, 1983. Consumers Power Company also concludes that this modification is more acceptable from an ALARA standpoint than the originally proposed modification since rerouting of the drain lines would prevent the release of radioactivity rather than providing for the release to be monitored. In this way, Consumers Power Company believes that the objectives of NUREG-0737 Item II.F.1.1 will be satisfactorily met.



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