

**WISCONSIN PUBLIC SERVICE CORPORATION**

P.O. Box 19002, Green Bay, WI 54307-9002



August 1, 1985

Mr. C. J. Paperiello, Chief  
Emergency Preparedness and Radiological Safety Branch  
U. S. Nuclear Regulatory Commission  
Region III  
799 Roosevelt Road  
Glen Ellyn, IL 60137

Gentlemen:

Docket 50-305  
Operating License DPR-43  
Kewaunee Nuclear Power Plant  
Dose Projection Program - Flow Rates

- References: 1) Letter from C. J. Paperiello (US NRC) to C. W. Giesler (WPSC)  
dated December 19, 1984, transmitting Inspection Report  
50-305/84-14
- 2) Letter from D. C. Hintz (WPSC) to C. J. Paperiello (US NRC)  
dated February 1, 1985

During the period of September 23-28, 1984, the NRC conducted an appraisal of the Emergency Response Facilities (ERFs) at the Kewaunee Nuclear Power Plant. The results of the appraisal were documented in Inspection Report 84-14 (reference 1). The inspection report identified no deficiencies or violations; however, five weaknesses were identified.

By letter dated February 1, 1985 (reference 2), Wisconsin Public Service Corporation (WPSC) provided our response to each of the identified weaknesses. We informed you that an evaluation of the Auxiliary Building Ventilation System and the Reactor Building Ventilation System would need to be performed in order to address your concerns documented in weaknesses 2 and 3 of the inspection report. We indicated that the results of the evaluation and recommended corrective actions would be provided to you by August 1, 1985.

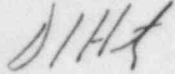
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By attachment to this letter we hereby provide our current status regarding the dose projection procedure evaluation and our anticipated future actions.

Very truly yours,



D. C. Hintz  
Manager - Nuclear Power

DSN/js

Attach.

cc - Mr. S. A. Varga, US NRC  
Mr. Robert Nelson, US NRC

Attachment

Update of  
Response to Weaknesses 2 & 3 of  
Inspection Report 84-14

ERF Weaknesses 2 & 3 (Reference 1)

Quantitative Auxiliary Building vent stack flow rate information should be made available for dose assessment calculations by either installing a vent stack flow measuring device or developing a matrix showing various fan combinations.

Quantitative Reactor Building vent flow rate information should be made available for dose assessment calculations. In addition, the dose assessment model should be revised to include this as a potential release pathway.

Response (Reference 2):

We are currently evaluating the development of a flow matrix based on the various possible fan combinations so that plant personnel can better understand and more accurately estimate vent flow rates based on fan status.

The evaluation will include a review of the Auxiliary Building Ventilation System and the Reactor Building Ventilation System. We also will explore the methods for determining a "chimney effect" flow in the event that no fans are running.

The evaluation and investigation should be completed by August 1, 1985 at which time we will inform you of our recommended corrective actions.

Update:

An evaluation of the Reactor Building Ventilation System and the Auxiliary Building Ventilation System has been performed. The Reactor Building Ventilation Stack is the release point for both the Containment Purge and Vent System and the Shield Building Ventilation System. The containment purge and

vent system receives no automatic start signals and the vent dampers are maintained closed during normal operation. Furthermore, the dampers are verified to be leaktight twice annually per Appendix J to 10 CFR 50 and any bypass leakage is directed to the shield building. The recently installed 2-inch purge and vent system is manually operated periodically during normal operation to relieve normal containment pressure buildup to remain within Technical Specification limits and can also be used to provide for routine containment atmosphere cleanup prior to containment entry. The system does isolate as part of the containment isolation logic and it is not intended to be used post-accident and therefore is not considered a post-accident release path.

The Shield Building Ventilation System does, however, receive an automatic start signal on a Safety Injection signal and therefore is a potential release point following an accident. The current dose projection program does not specifically address the Shield Building Ventilation System (via Reactor Building vent stack) as a potential release point.

As a corrective measure to ensure that the Shield Building Ventilation release path is considered as a source for dose projection, the dose projection program and procedures will be revised. The proposed revisions will enable the personnel implementing the procedure to include the release data and flow rate data from the shield building ventilation system. We expect these revisions to be completed by December 1, 1985.

The flow rate for the ventilation systems is estimated by identifying which of the fans in the system are operating. Quantitative flow rate data for the systems is available through data collected during periodic flow measurement

testing; we therefore feel that the current method of estimating the ventilation flow rate by determining the number of operating fans is adequate.

In an effort to improve our capabilities of obtaining accurate flow rate data, Wisconsin Public Service Corporation has initiated an engineering evaluation to determine the availability and applicability of installing a vent stack flow measuring device in the Auxiliary Building vent stack and the Reactor Building vent stack.

The engineering evaluation includes an effort to determine the system effectiveness in both low flow and design flow conditions. Consideration must also be given to the cost effectiveness of installing such a system. Contact with vendors/suppliers is being made to determine cost estimates and equipment availability which will be reviewed prior to committing to any system modification.