



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

April 27, 2009

MEMORANDUM TO: Lois M. James, Chief  
Plant Licensing Branch III-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

FROM: Thomas J. Wengert, Senior Project Manager  
Plant Licensing Branch III-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

*Thomas J. Wengert*

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1 AND 2  
DRAFT CLARIFICATIONS CONCERNING A REQUEST FOR  
ADDITIONAL INFORMATION (RAI) REGARDING LOSS-OF-  
COOLANT/MAIN STEAMLINE BREAK ACCIDENT DOSE  
CONSEQUENCE ANALYSES LICENSE AMENDMENT REQUEST  
(TAC NOS. MD9140 AND MD9141)

The enclosed draft request for clarification of an RAI was transmitted on March 30, 2009, to Mr. Dale Vincent of Prairie Island Nuclear Generating Plant, Units 1 and 2 (PINGP), requesting clarification of PINGP's March 16, 2009, response to the Nuclear Regulatory Commission (NRC) staff's RAI (Agencywide Documents Access and Management System (ADAMS) Accession No. ML090890180) concerning PINGP's loss-of-coolant/main steamline break dose consequences analyses license amendment request dated June 26, 2008 (ADAMS Accession No. ML081790439). During a discussion between the NRC staff and the licensee's staff on April 2, 2009, the second to last sentence of Question (1) Bullet 7 in the enclosed was clarified to read:

Do the planes of the exterior surfaces of the louvers face the control room and control room *inleakage locations*?

Following the discussion, the licensee stated their intent to respond to this request for clarification.

Docket Nos. 50-282 and 50-306

Enclosure: As stated

CONTACT: T. Wengert, NRR  
301-415-4037

CLARIFICATIONS CONCERNING A REQUEST FOR ADDITIONAL INFORMATION

LOSS-OF-COOLANT ACCIDENT/MAIN STEAM LINE BREAK ACCIDENT

DOSE CONSEQUENCES ANALYSES AND AFFECTED TECHNICAL

SPECIFICATIONS LICENSE AMENDMENT REQUEST

NORTHERN STATES POWER COMPANY – MINNESOTA (NSPM)

PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1 AND 2 (PINGP)

DOCKET NOS. 50-282 AND 50-306

With respect to Enclosure 1 of NSPM's March 16, 2009, response to the U.S. Nuclear Regulatory Commission's (NRC's) request for additional information on PINGP, the NRC staff requires the following clarifications to complete its review of the subject license amendment request (LAR):

Clarifications of Reply to Question (1) of Enclosure 1:

Bullet 3: What are the height and width of the Shield Building with respect to determining that the initial sigma y input should be 6.1 meters and the initial sigma z input should be 6.3 meters? How much of the Shield Building is above the Auxiliary Building? How was 43.0 or 43.6 meters determined to be the appropriate height of release input to the ARCON96 calculations?

Bullets 5 and 6: The Steam Generator (SG) Power Operated Relief Valve (PORV) and Main Steamline Break (MSL) direction inputs listed in Table 1 do not appear to match the graphical representation in the Attachment 1 figure in all cases. For example, the Unit 1 SG PORVs & MSLB-Point to Unit 1 Control Room Air Intake Input is listed as 180 degrees in Table 2, but appears to be about 155 degrees in the Attachment 1 figure. Which inputs represent the closest valve and which represent the centroid of a group of valves? What are the dimensions and orientations of the groups of valves and the distance of the closest valve to each receptor?

Bullet 7: What causes the Refueling Water Storage Tank releases through the louvers to be well mixed over the entire face of louvers per Regulatory Guide 1.194, "Atmospheric Relative Concentrations for Control Room Radiological Habitability Assessments at Nuclear Power Plants"? Do the planes of the exterior surfaces of the louvers face the control room and control room air intakes? Does M.U. in Table 5.2-1 in the June 26, 2008 license amendment request mean "make-up"?

Clarification of Reply to Question (2) of Enclosure 1:

Pre-number text: For the list of source/receptor pairs evaluated, please provide either the calculations or all inputs and resultant atmospheric dispersion factors (X/Q values) for each source/receptor pair.

With respect to the June 26, 2008, LAR:

Please provide a discussion that supplements Appendix H in the Prairie Island Updated Final Safety Analysis Report describing how the low population zone X/Q values were calculated and a historical perspective of their basis. The NRC staff notes that the X/Q values for the 1- 4 and 4 - 30 day time periods were calculated to include a non-conservative reduction factor which appears to be outside of the scope of the Regulatory Guide 1.4 methodology.

DRAFT



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