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U. S. Nuclear Regulatory Commission
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Gentlemen:

DOCKETS 50-266 AND 50-301
POTENTIAL FOR EXPOSURE OF ENVIRONMENTALLY QUALIFIED EQUIPMENT TO HIGH PH CONTAINMENT SPRAY
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Nuclear Power Department Nonconformance Report (NCR) N-89-275 identified the potential for a containment spray pH which is higher than that for which our in-containment Environmentally Qualified (EQ) equipment was qualified. A recent calculation has determined that during Emergency Core Cooling System (ECCS) recirculation of containment sump water, following a postulated large-break Loss of Coolant Accident, continued addition of Sodium Hydroxide (NaOH) spray additive could result in a containment spray pH as high as 12.87. This high pH is a result of continued addition of NaOH into the containment spray system while circulating containment sump fluid, which already has an elevated pH. The EQ equipment located inside containment at Point Beach is typically qualified to a pH of 10 to 10.5. An evaluation of materials was performed in order to determine the operability of the EQ equipment inside containment that are required to operate during the recirculation phase. As a result of this analysis, it was determined that the ability of this equipment to perform its safety function in the mitigation of a design basis event would not be affected by the higher pH. Since the higher pH spray condition would not have impacted the operability of the required equipment, a potential for the degradation of a safety function did not exist. Thus NCR N-89-275 was determined to be not reportable under 10CFR50.73.

As a result of NCR N-89-275, the Emergency Operating Procedures (EOP 1.3) have now been changed such that NaOH flow from the spray additive tank to the containment spray system will be terminated just prior to the switch-over of ECCS from injection to containment sump recirculation. This will limit containment spray to a pH of 9.0 to 10.0 during the injection phase and 7.5 to 9.0 during

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recirculation. These containment spray pH levels are less than the pH levels to which EQ equipment inside containment was qualified. The EQ Summary Sheets for in-containment EQ equipment currently lists a containment spray pH value of 7.9 to 10. These sheets will be updated to reflect the new pH range of 7.5 to 10.0. Also, it was determined that the new containment sump fluid and containment spray pH levels would remove a sufficient amount of iodine from the containment atmosphere to meet the off-site dose requirements of 10CFR100.

We would be pleased to answer any questions you may have regarding the above information.

Very truly yours,

C. W. Fay
Vice President
Nuclear Power

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Copy to: NRC Resident Inspector
NRC Regional Administrator, Region III