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U.S. Nuclear Regulatory Commission
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Subject: Brunswick Steam Electric Plant, Unit No. 2
Renewed Facility Operating License No. DPR-62
Docket No. 50-324
Special Report - Technical Requirements Manual Section 3.4,
Accident Monitoring Instrumentation

In accordance with Technical Requirements Manual Section 3.4, "Accident Monitoring Instrumentation," for the Brunswick Steam Electric Plant (BSEP), Unit No. 2, Duke Energy Progress, Inc., is submitting the enclosed Special Report associated with the Unit 2 drywell radiation monitors, TRM Table 3.4-1, Item 2.

This document contains no regulatory commitments.

Please refer any questions regarding this submittal to Mr. Lee Grzeck, Manager - Regulatory Affairs, at (910) 457-2487.

Sincerely,

George T. Hamrick

GTH/swr

Enclosure:

Special Report - Unit 2 Drywell Radiation Monitoring

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NRR

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Special Report - Unit 2 Drywell Radiation Monitoring

Background

On September 23, 2013, one channel of the Brunswick Steam Electric Plant (BSEP), Unit No. 2 post-accident drywell radiation monitoring 2-CAC-AT-1262 (i.e., Function 2 of Technical Requirements Manual (TRM) Table 3.4-1, "Accident Monitoring Instrumentation") was removed from service, isolated, and declared inoperable. Operations personnel took this action because of concern that leakage from the monitor sample pump was causing drywell atmosphere pressure to decrease. As a result, Condition A of TRM Section 3.4, "Accident Monitoring Instrumentation," was entered, which requires the affected radiation monitoring channel to be returned to operable status within 31 days. On October 24, 2013, the monitoring instrumentation had not been restored to operable status within the required 31 days. As a result, Condition C of TRM Section 3.4 was entered. This Special Report is submitted in accordance with Condition C of TRM Section 3.4.

Cause of Inoperability

On September 23, 2013, Operations personnel noted that drywell atmospheric pressure was slowly declining. Based on a prior history with minor leakage from the sample pump for the drywell radiation monitor, Operations personnel elected to remove the radiation monitoring system from service and close its associated isolation valves to arrest the decline in drywell atmospheric pressure. Since the monitor was isolated and its associated annunciator was disabled, it was declared inoperable.

Preplanned Alternate Monitoring Method

During the time period that the drywell radiation monitoring system has been inoperable, redundant radiation monitoring system 2-CAC-AT-1260 has remained operable and in operation.

Plans for Restoring the Instrumentation

Site Engineering has determined that the total gas leakage from the sample pump is within the limits of normal, design parameters. Therefore, the system was returned to operable status on 05 November 2013.