

## AR 00200745 Report

<b>Aff Fac:</b>	Byron	<b>AR Type:</b>	CR	<b>Status:</b>	H/APPR
<b>Aff Unit:</b>	NA	<b>Owed To:</b>	ACAPALL	<b>Due Date:</b>	
<b>Aff System:</b>	FW			<b>Event Date:</b>	02/06/2004
<b>CR Level/Class:</b>	/			<b>Disc Date:</b>	02/09/2004
<b>How Discovered:</b>	H01			<b>Orig Date:</b>	02/10/2004

## Action Request Details

**Subject:** Feedwater Flow Tracer Test Preliminary Results

**Description:** \*\*\*\*\* Originator Section \*\*\*\*\*

CR No:

Identified by (Name):  
BRIAN R LEDGER

**Condition Description:**

The Tracer Test Preliminary results show that the venturi measured flow is 0.6% lower than the tracer measured flow for unit 1, and the venturi measured flow 0.2% lower than the tracer measured flow for unit 2. The FW Tracer test was conducted on Feb. 6, 2004.

Specific Preliminary results of the tracer indicate the following:

Plant reading (Venturi) Unit 1 15 965 000 lb/hr

Unit 2 15 891 000 lb/hr

Tracer result Unit 1 16 060 644 lb/hr

Unit 2 15 926 837 lb/hr

Stand. deviation tracer Unit 1 0.4 % Unit 2 0.3%

Dev. plant-tracer Unit 1 -0.6 % Unit 2 -0.2 %

Preliminary AMAG crossflow measurements during the tracer test for unit 1 are 1.8% lower flow than venturi, and on unit 2 are 1% lower than venturi.

There is no immediate plant impact because the tracer results are within the uncertainty of the square root sum of the squares with venturi. AMAG Crossflow (not currently in use) readings are not within the uncertainty of the square root sum of the squares with the tracer test, and therefore should not be used without further evaluation. According to the decision tree that was developed for data comparison, Tracer fell into case 2. Case 2 states that the venturi measurement is correct and Crossflow should not be implemented.

A preliminary team review (Exelon Engineering, ABB, Westinghouse) of the tracer test has not been able to find any discrepancy that would invalidate the results of the tracer test. As such, no further tracer test is planned at Byron.

Final report of results will be by EC evaluation. This EC will contain final reports information from Tracer Test, Venturi Flow data, and Westinghouse/AMAG final report on Crossflow Measurement.

B-55

How discovered:  
Data Taken during FW tracer SPP 04-001

Immediate actions taken:  
Performed a team review of the results.

Westinghouse is preparing an action plan to address the industry impact.

Name & organization of supervisor personally notified to perform  
Supervisory Review:  
Brian Ledger

\*\*\*\*\* Optional Section \*\*\*\*\*

What activities, processes, or procedures were involved?  
SPP 04-001

Why did the condition happen?  
Results were obtained within the bounds of a proven method of determining  
feedwater flow with Na24 tracer.

What are the consequences?  
Preliminary tracer results are consistent with venturi flow measurements,  
but not AMAG Crossflow measurements.

Were any procedural requirements impacted?  
None

Were there any adverse physical conditions?  
None

Identify who was notified?  
D. Spitzer, B. Adams, D. Eder, T. Printz, J. Drowley, W. Kouba, T.  
D'Orazio (BWD)

List of knowledgeable individuals:  
D. Spitzer, B. Adams, D. Eder, T. Printz, J. Drowley, W. Kouba, J. Traub  
(ABB)

Repeat or similar condition?  
No. FW flow tracer test has not been performed previously at Byron or  
Braidwood.

\*\*\*\*\* Supervisory Reviewer Comments Section \*\*\*\*\*

Name of Supervisory Reviewer: Brian Ledger

Provide a clear statement of the Problem and Consequence, if necessary:  
No additional information.

Recommended Significance Level and Class (provide a basis for Level 3 and  
above):

4D

Identify additional actions taken or required to be taken (For actions not  
already completed include Action description, Assignee, and proposed due  
date):

Formalize the results.

<b>Subject/Description:</b>				
<b>Assign #:</b>	<u>06</u>	<b>Assigned To:</b>	<b>Status:</b>	INPROG
<b>Aff Fac:</b>	Byron	<b>Prim Grp:</b>	ACAPALL	<b>Due Date:</b>
<b>Assign Type:</b>	CA	<b>Sec Grp:</b>		<b>Orig Date:</b>
<b>Priority:</b>				
<b>Schedule Ref:</b>				
<b>Unit Condition:</b>				
<b>Subject/Description:</b>	Corrective Action			
<b>Assign #:</b>	<u>07</u>	<b>Assigned To:</b>	<b>Status:</b>	INPROG
<b>Aff Fac:</b>	Byron	<b>Prim Grp:</b>	ACAPALL	<b>Due Date:</b>
<b>Assign Type:</b>	EFR	<b>Sec Grp:</b>		<b>Orig Date:</b>
<b>Priority:</b>				
<b>Schedule Ref:</b>				
<b>Unit Condition:</b>				
<b>Subject/Description:</b>	Effectiveness Review (Rev. 2) 1. Every CAPR must be evaluated by its own EFRS assignment. 2. Collective EFR review is required per RC investigation. MRC approval is required for: - Collective EFRs - Extensions to Collective EFRs that have been challenged.			
<b>Assign #:</b>	<u>08</u>	<b>Assigned To:</b>	<b>Status:</b>	INPROG
<b>Aff Fac:</b>	Byron	<b>Prim Grp:</b>	ACAPALL	<b>Due Date:</b>
<b>Assign Type:</b>	OPDB	<b>Sec Grp:</b>		<b>Orig Date:</b>
<b>Priority:</b>				
<b>Schedule Ref:</b>				
<b>Unit Condition:</b>				
<b>Subject/Description:</b>	Operability Determination			
<b>Assign #:</b>	<u>10</u>	<b>Assigned To:</b>	<b>Status:</b>	INPROG
<b>Aff Fac:</b>	Byron	<b>Prim Grp:</b>	ACAPALL	<b>Due Date:</b>
<b>Assign Type:</b>	ACIT	<b>Sec Grp:</b>		<b>Orig Date:</b>
<b>Priority:</b>				
<b>Schedule Ref:</b>				
<b>Unit Condition:</b>				
<b>Subject/Description:</b>	Verify all planned actions identified in the Supervisory Reviewer comments are addressed prior to CR closure.			
<b>Assign #:</b>	<u>11</u>	<b>Assigned To:</b>	<b>Status:</b>	INPROG
<b>Aff Fac:</b>	Byron	<b>Prim Grp:</b>	ACAPALL	<b>Due Date:</b>
<b>Assign Type:</b>	EACE	<b>Sec Grp:</b>		<b>Orig Date:</b>

Priority:

Schedule Ref:

Unit Condition:

Subject/Description: Equipment Apparent Cause Evaluation (EACE) (Rev. 3)

Assign #: 12 Assigned To: Status: INPROG

Aff Fac: Byron Prim Grp: ACAPALL Due Date:

Assign Type: ACE Sec Grp: Orig Date:

Priority:

Schedule Ref:

Unit Condition:

Subject/Description: Perform ACE (Rev. 3)

Assign #: 13 Assigned To: Status: INPROG

Aff Fac: Byron Prim Grp: ACAPALL Due Date:

Assign Type: RCR Sec Grp: Orig Date:

Priority:

Schedule Ref:

Unit Condition:

Subject/Description: Perform Root Cause Analysis of Condition (Rev. 3) Extensions of this assignment require MRC Approval

Assign #: 14 Assigned To: Status: INPROG

Aff Fac: Byron Prim Grp: ACAPALL Due Date:

Assign Type: CCA Sec Grp: Orig Date:

Priority:

Schedule Ref:

Unit Condition:

Subject/Description: Perform a Common Cause Analysis (Rev. 2) Extension of this assignment requires MRC Approval

Assign #: 15 Assigned To: Status: INPROG

Aff Fac: Byron Prim Grp: ACAPALL Due Date:

Assign Type: RCCH Sec Grp: Orig Date:

Priority:

Schedule Ref:

Unit Condition:

Subject/Description: Develop a Root Cause Charter (rev. 3) Completion of a Root Cause Charter is expected to be completed within two business days of event screening

<b>Assign #:</b>	<u>16</u>	<b>Assigned To:</b>		<b>Status:</b>	INPROG
<b>Aff Fac:</b>	Byron	<b>Prim Grp:</b>	ACAPALL	<b>Due Date:</b>	
<b>Assign Type:</b>	ACE	<b>Sec Grp:</b>		<b>Orig Date:</b>	
<b>Priority:</b>					
<b>Schedule Ref:</b>					
<b>Unit Condition:</b>					
<b>Subject/Description:</b>	Perform ACE (Rev. 4)				
<b>Assign #:</b>	<u>17</u>	<b>Assigned To:</b>		<b>Status:</b>	INPROG
<b>Aff Fac:</b>	Byron	<b>Prim Grp:</b>	ACAPALL	<b>Due Date:</b>	
<b>Assign Type:</b>	ACE	<b>Sec Grp:</b>		<b>Orig Date:</b>	
<b>Priority:</b>					
<b>Schedule Ref:</b>					
<b>Unit Condition:</b>					
<b>Subject/Description:</b>	Perform Quick ACE (Rev. 4)				
<b>Assign #:</b>	<u>18</u>	<b>Assigned To:</b>		<b>Status:</b>	INPROG
<b>Aff Fac:</b>	Byron	<b>Prim Grp:</b>	ACAPALL	<b>Due Date:</b>	
<b>Assign Type:</b>	EACE	<b>Sec Grp:</b>		<b>Orig Date:</b>	
<b>Priority:</b>					
<b>Schedule Ref:</b>					
<b>Unit Condition:</b>					
<b>Subject/Description:</b>	Perform EACE (Rev. 4)				
<b>Assign #:</b>	<u>19</u>	<b>Assigned To:</b>		<b>Status:</b>	INPROG
<b>Aff Fac:</b>	Byron	<b>Prim Grp:</b>	ACAPALL	<b>Due Date:</b>	
<b>Assign Type:</b>	CCA	<b>Sec Grp:</b>		<b>Orig Date:</b>	
<b>Priority:</b>					
<b>Schedule Ref:</b>					
<b>Unit Condition:</b>					
<b>Subject/Description:</b>	Perform CCA (Rev. 3)				
<b>Assign #:</b>	<u>20</u>	<b>Assigned To:</b>		<b>Status:</b>	INPROG
<b>Aff Fac:</b>	Byron	<b>Prim Grp:</b>	ACAPALL	<b>Due Date:</b>	
<b>Assign Type:</b>	RCR	<b>Sec Grp:</b>		<b>Orig Date:</b>	
<b>Priority:</b>					
<b>Schedule Ref:</b>					
<b>Unit Condition:</b>					

**Subject/Description:** Perform RCA (Rev. 4)

**Assign #:** 21                      **Assigned To:**                      **Status:** INPROG

**Aff Fac:** Byron                      **Prim Grp:** ACAPALL                      **Due Date:**

**Assign Type:** RCCH                      **Sec Grp:**                      **Orig Date:**

**Priority:**

**Schedule Ref:**

**Unit Condition:**

**Subject/Description:** Complete Root Cause Charter (Rev. 4)