DRE CR SUMMARY REPORT

CR: 202982 Disc Date: 02/20/2004 Event Date: 02/20/2004 How Discovered: H02 Unit: 02 Level: 4

SUBJECT: Unit 2 FW Flow Indication as a Result of 1996 AMAG Cal Test System: 32 Class: D

ORIGINATOR SECTION

CR No: 202982

Identified by (Name):
JOSEPH S REDA

Condition Description:
Due to recent testing performed at Byron (documented in Condition Reports 200745 and 202040), feedwater flow indication through the use of ultrasonic technology using Crossflow/ AMAG has been brought intc question. In 1996, Advanced Measurement and Analysis Group (AMAG) was
contracted to perform a calibration test of the Unit 2 feedwater flow transmitters. The data gathered during the calibration test was performed with temporarily installed equipment that was removed when the test was completed. As a result of the data that was collected, it was determined that the in plant venturi flow loops were indicating higher flow than actual flow. As a result, setpoint change 02-96-107 was issued to rescale the feedwater flow transmitters, supported by calculation DRE96-0199. See EC 347441 for further details.

The rescaling of the individual feedwater flow transmitters reduced the total indicated feedwater flow (all three loops) by 1.26 % from the previous scaling setpoint alone. The recent testing results from Byron call into question the data that was gathered in 1996 that was used tc perform this rescaling.

How discovered:
During discussions with Corporate regarding the results of the recent tracer testing at Byron.

Immediate actions taken:
Initiated evaluation to address actions. (EC 347441)

Name & organization of supervisor personally notified to perform Supervisory Review:
C. Wiegand

********** Optional Section **********

What activities, processes, or procedures were involved?

Why did the condition happen?

What are the consequences?

Were any procedural requirements impacted?

SCREENING SECTION

Name of Supervisory Reviewer: C. Wiegand

Provide a clear statement of the Problem and Consequence, if necessary:

The problem identified in this condition report is a concern that the calibration process used on the Dresden Unit 2 Feedwater flow venturi's may be inaccurate. It must be noted that this issue arose from observed indications at Byron and Braidwood but there are many more nuclear plants using the AMAG system without similar indications. Westinghouse issued Technical Bulletin TB-04-4 on February 12, 2004 to alert utilities of the issue.

The consequence of the issue is that a potential exists that actual power is actually higher than indicated or calculated power resulting in ar overpower event.

However, as detailed below in the additional comments section, there is reasonable assurance based on plant indications that the unit is not overpowered. In actuality, it is believed at this time that the phenomena affecting Byron and Braidwood were not present during the 1996 AMAG venturi calibration and the current venturi calibration remains accurate and conservative. Please see EC 347441 for more information.

Recommended Significance Level and Class (provide a basis for Level 3 anc above): Recommend a Significance level of 4 and a Class of D.

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

An evaluation was initiated to determine recommendations for immediate anc long term actions. This evaluation is documented in EC 347441.

- Identify Extent of condition issues that require immediate actions:

There are no extent of condition issues that require immediate action. The calibration test using the AMAG Crossflow system was only performed on Unit 2.

Suggested interim and long-term corrective actions:

Interim and long term actions are being addressed by Corporate with station input as discussed in EC 347441. Suggest 14-day ACIT ATI to A8330NESTB, Reda, to document current status and implementation of corporate recommendation for AMAG impact on Dresden.

Additional Comments:

A review of this issue has been performed and documented in EC 347441. Based on that review, it is concluded that there is no need for immediate

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ORIGINATOR SECTION

Were there any adverse physical conditions?

Identify who was notified?

List of knowledgeable individuals:

Repeat or similar condition?

SCREENING SECTION

action at this time. However, further research is needed to determine if the problems that have been discovered at Byron apply to the calibration test that was performed on Unit 2 in 1996. In particular, it must be determined what is the problem at Byron that is causing the AMAG equipment to record a lower feedwater flow than actual. Once that is completed, an attempt can be made to determine if this problem is applicable to the Unit 2 calibration test in 1996. It is important to note from the condition reports written at Byron, currently none of the corrective actions include investigation into why the AMAG equipment is reading incorrectly. The station currently has chosen not to use to Crossflow ultrasonic flow measurements.

The feedwater flow transmitters for Unit 2 were rescaled in 1996 based on the results of a calibration test that was performed by AMAG. The rescaling of the individual feedwater flow transmitters reduced the total indicated feedwater flow (all three loops) by 1.26 % from the previous scaling setpoint alone. The recent testing results from Byron call into question the data that was gathered in 1996 that was used to perform this rescaling.

The overall effort is currently being directed by Corporate, based on the results of the Byron testing. The station will be closely involved with the review to determine if additional actions are required. If it is conservatively assumed that feedwater flowrate indication is 1.26% lower than actual flow, Core Thermal Power should be limited to approximately 98.7%. While current power level is below this value, it is estimated that this limit could be reached as early as May, depending on weather and condenser conditions. This is being used to establish the time frame to complete this effort.

Name of SRO contacted for Shift Management Review: Palanyk

********** Shift Management Comments Section **********

Shift Manager Reviewer (Name): T. Palanyk

Operable? (Yes/No) Basis: Yes, Engineering evaluation to date indicates there is not an apparent discrepancy between actual and indicated FW flow and calculated Core Thermal Power.

Reportable? (Yes/No) Basis: No, calibration inaccuracies have not been discovered to date that could have lead to the Unit operating above Licensed Limit or resulting in non-conservative APRM Trip settings.

Additional Comments: Followup evaluation per recommended ATI in Supervisor section. Add to ATI to review findings and discuss with Ops Shift Mgr to evaluate plant impact/operability/reportability of any discoverec discrepancies in FW flow calibration.

********** CAPCO/MRC Comments Section **********

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SCREENING SECTION

CAPCO Reviewer (Name): Frank P. Polak, EDCAPCo

CR Owed to: A8350CAP

Screening Comments:

ACIT to Reda, Plant Engineering, to document current status and implementation of the corporate recommendations for Dresden AMAG impact. Review the status with Operations Shift Management to evaluate plant impact, operability and reportability of any discovered discrepancies in FW flow calibration.
Initiate additional actions as appropriate.
Alert Group: A8330NESTB
Due Date: 03/08/04

CA to Reda, Plant Engineering, to document the final resolution and corporate recommendations for the Dresden AMAG impact. Generate a CR for Operations Shift Management to evaluate plant impact, operability and reportability if required per LS-AA-125. Initiate additional actions as appropriate.
Alert Group: A8330NESTB
Due Date: 06/29/04

TREND CODES

Trd 1	Description	Trd 2	Description	Trd 3	Description	Proc	Org	Rank
F-ENG	FUNDAMENTALS - ENGINEERING	E-TR	TECHNICAL RIGOR		NOT IDENTIFIED	CC01	VNC	
PWP	PEOPLE-WORK PRACTICES	WPWS	USE OF WORK STANDARDS	4FI	FOLLOWED INCORRECTLY	CC01	VNC	P

CR SIGN OFF

Originator Info

Orig	Ext	Dept	Orig Date
REDA JOSEPH S		08330	02/20/04

Supervisor Info

Approved By	Date
WIEGAND CHRISTOPHER M	02/20/04

Shift Manager Info

Approved By	Date
PALANYK TERENCE S	02/20/04

Screening Info

Approved By	Date
POLAK FRANK P	02/23/04

MRC CONSIDERATIONS (CR ATTRIBUTES)

Regulatory Impact
TS OPERABLE:
REPORTABLE:
SDP:

Human Performance
DEPT CLOCK RESET:
DEPT/CREW RESET:
DEPT/CREW RESET:
PLANT CLOCK RESET:

OPEX
NER:
NNOE:

MRC concurs with Significant Level and Investigation Class? Yes No

MRC to review ACE results? Yes No

MRC Comments:

Bring Back to MRC? Yes/No