

State Change History

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|--|--|---------------------------------|---|--|---|-----------------------------------|---|
| OTH Initiate by WALESH, DEBRA | Assign Work 5/18/2006 7:10:07 Owner HALVERSON, Russ | Assign by HALVERSON, Russ | Conduct Work 5/18/2006 7:37:19 Owner GLASER, BRANDON | Work Complete by GLASER, BRANDON | Review & Approval 8/23/2006 6:56:39 Owner HALVERSON, Russ | Approved by HALVERSON, Russ | Quality Check 8/24/2006 9:09:50 Owner KNPP CAP Admin |
| Complete and Close by WALESH, DEBRA | Done 9/13/2006 17:10:27 Owner (None) | | | | | | |

Section 1

Activity Request Id: CA023796
Activity Type: Corrective Action Submit Date: 5/18/2006 7:10:07
Site/Unit: Kewaunee
One Line Description: GAP analysis needed for AMAG CROSSFLOW User Guidelines
Activity Requested: Take corrective actions as required to resolve condition identified in CAP 33875

CA to 1630 I/T PPCS To provide input

CATPR: N Mode Change Restraint: (None)
Initiator: HANNA, Tim Initiator Department: 7220 Eng Prog Insp & Materials
Responsible Group Code: 1630 I/T PPCS Responsible Department: Nuclear Safety and Licensing
Activity Supervisor: HALVERSON, Russ Activity Performer: GLASER, BRANDON

Section 2

Priority: 4 Due Date: 8/24/2006
Management Exception From PI?: N QA/Nuclear Oversight?: N
Licensing Review?: N NRC Commitment?: N
NRC Commitment Date: Significance Level: D

Section 3

Activity Completed: 8/23/2006 6:56:39 - GLASER, BRANDON:

Issue:

A GAP analysis needs to be performed on the recommendations outlined in the AMAG CROSSFLOW Ultrasonic Flow Meter User Guidelines to document how KPS meets these recommendations and to generate the appropriate corrective actions for any items currently not being met. Applicable work groups met to discuss these recommendations and each item was assigned to the appropriate group for evaluation. Items 12.0, 13.0, 18.0, 19.0, 23.0, 27.0, 28.0, 30.0, 31.0, 32.0, 33.0, 33.1, and 35.0 were assigned to the Process Computer Group for evaluation. This CA documents the results of that evaluation. All required corrective actions will be generated out of the main GAP analysis CA (CA23795) once all work group evaluations are complete (CA23796, CA23797, and CA23798).

Evaluation:

11.0 Develop plant-specific ACL troubleshooting flowchart

Status - KPS does not currently have a plant specific flowchart, using the default flowchart from user's guidelines.

Actions - Need to create plant specific flowchart

12.0 Review respective plant data security requirements to ensure use of the CROSSFLOW modem is consistent with relevant security requirements

Status - KPS modem is only connected when vendor access to the system is required, during these periods KPS employee monitors vendor use of system visually.

Actions - Need to verify this practice follows Dominion cyber security policies

13.0 Site procedures should identify the responsibilities and procedures for system operation, including when the vendor should be contacted.

Status - KPS has the following procedures for the system, which include when vendor should be contacted:

PCG-46D-04 "Reboot UFM and UTM Signal Processing Units"

PCG-46D-05 "Reboot UFM and UTM Signal Processing Units Hard Drive File Maintenance"

PCG-46D-06 "UFM RSSI Scan"

B-83

PCG-46D-07 "AMAG Startup Configuration Parameter Changes"
PCG-46D-08 "AMAG Signal Conditioning Unit Self Test"
PCG-46D-10 "AMAG System Monitoring"

Actions – Need plant specific troubleshooting procedure, which includes when to contact vendor, see item 11.0 above.

18.0 Identify which system alarm settings are the most critical for the particular system application and ensure that the appropriate level of procedural guidance is provided for the alarm response

Status – Through the plant computer link (ACL) alarms are divided into "Critical" and "Non-Critical" alarms. Critical alarms mark Cf questionable and hold them at the last good value; these also activate TLA-28 "Power Greater than UFMD Limit" for operator response. Operations alarm response is the same for any critical alarm (TLA-28 response). This is adequate as system SMEs are contacted to troubleshoot alarm. Could be improved by having plant specific alarm troubleshooting procedure as discussed above

Actions – Same as 11.0 and 13.0 above

19.0 Plant procedures should clearly identify when the CROSSFLOW system should be declared out of service.

Status – Plant computer link (ACL) automatically defaults to using last good correction factors when critical alarms are received and rejects all Cf until alarm condition clears. Operations procedures (A-CP-46A "UFMD/UTM Abnormal Operation", N-O-03, "Plant Operation Greater Than 35% Power", and A-CP-46 "Abnormal Plant Process Computer") should provide administrative out-of-service information for plant chemistry limitations, feedwater alignment changes, and PPCS problems.

Actions – Need to verify operations procedures adequately cover chemistry limitations, feedwater system alignment changes, and PPCS problems.

23.0 Perform power change flow dependency checks periodically

Status – The Process Computer Group monitors system performance every two months through the PM process using procedure PCG-46D-10 "AMAG System Monitoring". This includes trending of the flows, correction factors, etc. and would catch a power dependency like we currently have on Loop A. Normally the Thermal Performance Engineer or Feedwater System Engineer does this type of monitoring/trending as they have the overall plant expertise to evaluate changes in correction factor performance compared to other plant indications.

Actions – Need to evaluate what group should be performing this monitoring, as the Process Computer Group doesn't have the required balance of plant expertise to effectively evaluate correction factor changes relative to other plant indications.

27.0 Ensure software configuration controls are established for implementing changes to AMAG software

Status – Changes to ACL addressable constants are controlled through procedure PCG-46D-07 "AMAG Startup Configuration Parameter Changes". This procedure was based off vendor user guidelines. Software upgrades/changes are controlled under the Dominion Software Quality Assurance program.

Actions – None

28.0 Procedural requirements for ACL addressable constants controls.

Status – Changes to ACL addressable constants are controlled through procedure PCG-46D-07 "AMAG Startup Configuration Parameter Changes". This procedure was based off vendor user guidelines.

Actions – None

30.0 Perform periodic Self Test (SCU Time Delay Test).

Status – SCU Self Test is performed using procedure PCG-46D-08 "AMAG Signal Conditioning Unit Self Test". Through the PM process this is performed every 6 months and following return from calibration.

Actions – None

31.0 Perform periodic SCU Calibration

Status – SCU is sent to vendor for calibration every outage, which meets the 3-year recommendation.

Actions – None

32.0 Provide procedural guidance to perform a Receiver Signal Strength Indicator (RSSI) Scan as appropriate.

Status – RSSI scan is performed using procedure PCG-46D-06 "UFM RSSI Scan". This is currently performed for system troubleshooting and once per year through the PM process.

Actions – Need to verify/incorporate the following frequency recommendations for performing an RSSI scan: If there has been a major feedwater temperature transient in conjunction with a change in Cf or change in Cf quality, following return to power from cold shutdown, once per year at continuous high temperature operation (COMPLETE), post transducer replacement if there is an unexplained change in CROSSFLOW output standard deviation (Done with vendor following transducer replacements), and post feedwater system modifications that could potentially affect the flow characteristics.

33.0 Provide procedural requirements to perform a Frequency Spectrum Scan (FSS) using DIAGNOSE as appropriate.

Status – FSS was performed during initial system installation and periodically by vendor for system troubleshooting.

Actions – Need to verify/incorporate the following frequency recommendations for performing an FSS: initial CROSSFLOW system installation to establish a FSS measurement baseline (COMPLETE), post feedwater system modification that could potentially affect the flow characteristics, if there is an unexpected change in CROSSFLOW output standard deviation or rejection rate (Currently done with vendor for troubleshooting these conditions), and post power uprate (was performed following MUR and Stretch uprate).

33.1 Retain FSS Records

Status – FSS historical data records are stored on the CROSSFLOW computer.

Actions – None

35.0 Develop plant-specific qualification standards for operation and maintenance that incorporate the CROSSFLOW system, AMAG specific training levels and user's classifications.

Status – The Process Computer Group currently has its own qualifications for performing AMAG procedures and maintaining the system. The user guidelines detail the levels of training required for each function. This should be used to evaluate where KPS stands as far as training.

Actions – Need to evaluate who needs training and the level of training required based on the user guidelines.

Closeout:

The above evaluation documents the results of the GAP analysis for the items assigned to the Process Computer Group. Corrective actions will be generated out of the main GAP analysis CA (CA23795) once all work group evaluations are complete (CA23796, CA23797, and CA23798). This CA is complete and can be closed.

Hot Buttons: (None)

Section 4

QA Supervisor: (None) Licensing Supervisor: (None)

Section 5

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|-------------------------|--------------------|---------------------|---------------|
| Project: | Corrective Action | State: | Done |
| Active/Inactive: | Inactive | Owner: | (None) |
| Submitter: | WALESH, DEBRA | Assigned Date: | 5/18/2006 |
| Last Modified Date: | 9/13/2006 17:10:27 | Last Modifier: | WALESH, DEBRA |
| Last State Change Date: | 9/13/2006 17:10:27 | Last State Changer: | WALESH, DEBRA |
| Close Date: | 9/13/2006 17:10:27 | | |
| NUTRK ID: | | | |
| Child Number: | 0 | | |
| References: | OE11148 | | |
| Update: | | | |
| Import Memo Field: | | | |
| CAP Admin: | KNPP CAP Admin | Site: | Kewaunee |
| OLD_ACTION_NUM: | | | |
| Cartridge and Frame: | | | |

Response: (None) Primary Attribute: (None)
Primary Topic: (None) Secondary Attribute: (None)
Secondary Topic: (None) INPO Performance Objective: (None)
sub_tsid: 0

Attachments and Parent/Child Links

Subtask from CAP033875: GAP analysis needed for AMAG CROSSFLOW User Guidelines by WALES, DEBRA (5/18/2006 7:10:07)

Change History

5/18/2006 7:10:08 by WALES, DEBRA

Last Modified Date Changed From 5/18/2006 7:10:07 To 5/18/2006 7:10:08

Attachment Added: Subtask from CAP033875: GAP analysis needed for AMAG CROSSFLOW User Guidelines

5/18/2006 7:37:19 by HALVERSON, Russ

Activity Performer Changed From (None) To GLASER, BRANDON

Priority Changed From (None) To 4

Due Date Changed From Unassigned To 8/24/2006

State Changed From Assign Work To Conduct Work Via Transition: Assign

Owner Changed From HALVERSON, Russ To GLASER, BRANDON

Assigned Date Changed From Unassigned To 5/18/2006

Last Modified Date Changed From 5/18/2006 7:10:08 To 5/18/2006 7:37:19

Last Modifier Changed From WALES, DEBRA To HALVERSON, Russ

Last State Change Date Changed From 5/18/2006 7:10:07 To 5/18/2006 7:37:19

Last State Changer Changed From WALES, DEBRA To HALVERSON, Russ

8/23/2006 6:56:39 by GLASER, BRANDON

Activity Completed Changed From " To "[Appended:] Issue: A GAP analysis needs to be performed on the recommendations outlined in the AMAG CROSSFLOW Ultrasonic Flow Meter User Guidelines to document how KPS meets these recommendations and to generate the appropriate corrective action fo[...]"

State Changed From Conduct Work To Review & Approval Via Transition: Work Complete

Owner Changed From GLASER, BRANDON To HALVERSON, Russ

Last Modified Date Changed From 5/18/2006 7:37:19 To 8/23/2006 6:56:39

Last Modifier Changed From HALVERSON, Russ To GLASER, BRANDON

Last State Change Date Changed From 5/18/2006 7:37:19 To 8/23/2006 6:56:39

Last State Changer Changed From HALVERSON, Russ To GLASER, BRANDON

8/24/2006 9:09:50 by HALVERSON, Russ

State Changed From Review & Approval To Quality Check Via Transition: Approved

Owner Changed From HALVERSON, Russ To KNPP CAP Admin

Last Modified Date Changed From 8/23/2006 6:56:39 To 8/24/2006 9:09:50

Last Modifier Changed From GLASER, BRANDON To HALVERSON, Russ

Last State Change Date Changed From 8/23/2006 6:56:39 To 8/24/2006 9:09:50

Last State Changer Changed From GLASER, BRANDON To HALVERSON, Russ

CAP Admin Changed From (None) To KNPP CAP Admin

9/13/2006 17:10:27 by WALES, DEBRA

State Changed From Quality Check To Done Via Transition: Complete and Close

Active/Inactive Changed From Active To Inactive

Owner Changed From KNPP CAP Admin To (None)

Last Modified Date Changed From 8/24/2006 9:09:50 To 9/13/2006 17:10:27

Last Modifier Changed From HALVERSON, Russ To WALES, DEBRA

Last State Change Date Changed From 8/24/2006 9:09:50 To 9/13/2006 17:10:27

Last State Changer Changed From HALVERSON, Russ To WALES, DEBRA

Close Date Changed From Unassigned To 9/13/2006 17:10:27