

Monday 29 April 1996

K. Reece

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Minutes of Meeting: Radiation Safety Committee

Date: Thursday 25 April 1996

Present: L. Ahrens, D. Beavis, A. Etkin, W. Glenn, E. Lessard, W. MacKay, K. Reece,
A. Stevens, R. Thern; G. Bunce, R. Frankel, T. Robinson.

Subject: Test conducted @ FEB gate UGE1.

Background: The ATR and g-2 access gates use an "analog gate" scheme where the voltage drop across precision resistors is used to identify which gate is being addressed. These correct resistors were not initially installed and were recently retrofit with the proper value resistors.

During a test of the PASS system conducted the evening of Wednesday 24 April 1996, it was found that Division "A" PLC would not accept the "start of sweep" at gate UGE1; Division "B" PLC would allow the "start of sweep" to be initiated. The suspicion was that the resistor installed for Division "A" was the incorrect value. Although the test procedures indicates that the fault should have been repaired (resistor replaced) and that test procedure started over, the relevant constant in Division "A" PLC code was changed to accommodate this incorrect resistor value. The test was then completed. When the RSC chair was notified the following morning of this change with a proposal to accept the PLC test, the recommendation from the chair was to consider the test invalid, replace the resistor with one of the correct value and re-certify the area. This would require an additional several hours of access to the U-line and impact the AGS SEB program.

Note: the resistor in question was never measured to determine if it was in fact the problem. Also, there are really two identical resistors involved; one outside the gate and one inside.

Later on Wednesday, a request was made to present this question to the full RSC for review. A proposal was made to the RSC to accept this change of a PLC constant without re-certifying the entire PLC, and attach this to the present AGS-OPM 9.1.13 dealing with interlock logic design. This is consistent with present practice at CEBAF for "simple, non-interlock logic" PLC code changes.

1. Discussion and comments:

1. The RSC was not consulted before the PLC constant was changed; although the chair was available for discussion. There is a question as to whether the code version number was incremented to reflect this change.
2. A perspective was presented that the PASS system is yet to be "baselined" and therefore the change in question is allowed. This, however, is not the way in which other access control systems have been installed and tested at the AGS and could lead to a final state (as baseline) that differs from the original intended details of the access controls. The test procedures are then the only layer on control over the final system.
3. To date, the only item "baselined" for the PASS system is the State Tables. Wiring diagrams and the PLC code have not yet been documented.
4. Items that are important to understand such as the function and separation of these "analog gate" allowed and not-allowed states have also not been baselined.
5. The committee raised the concern as to the QA of the installation, testing and changes made with respect to the PASS system in general. Are there other parts of this system that have "evolved" to somewhat different configurations without the appropriate prior (or post) review ?

2. Conclusions and recommendations:

1. The RSC did not feel comfortable accepting the "permanent" addition to AGS-OPM 9.1.13. However, the committee *did* believe that with proper outside review, this particular code change and associated test could be accepted. The proposal to accept this one time code change and validate the test passed by majority vote; (A. Stevens and D. Beavis had to leave early (no vote) and K. Reece cast a negative vote).
2. In order to accept the code change, it must be reviewed by another engineer (T. Tallerico) and a recommendation to accept reported to the RSC. Included in this review are;
 1. The number of times the code refers to this constant and for what purpose.
 2. Impact of the smaller "non-allowed" state above the changed constant.

Action items:

1. RSC should adopt a PLC change policy (CEBAF document as guidance) and incorporate it in the configuration control policy. [ACT-01-97, Musolino, Etkin, MacKay, Tallerico]
2. The RHIC configuration Control Policy (RHIC OPM 4.91) should be presented to the RSC for review. [ACT-02-97, Musolino, Etkin, MacKay]

Attachments:

1. AGS-OPM 9.1.13 (w/proposed addition to cover code changes).
2. CEBAF-S-001-001 (CEBAF Personnel Safety System Configuration Control Policy)

cc: RSC
RSC file (w/attachments)