

Tuesday 12 December 1995

K. Reece

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Minutes of Meeting: Friday 8 December 1995

Present: A. Etkin, R. Frankel, M. Harrison, P. Ingrassia, W. MacKay, K. Reece.

Subject(s): PASS system changes.

The present operating of ATR/g-2 with the PASS system has provided many people (primarily those in MCR Operations) time to become familiar with the system. Comments and recommendations for changes to the system have been collected and the intent of this meeting was to review these comments along with setting dates for action on these changes.

Since those who use the PASS system most frequently are in the MCR Operations Group, they should have significant input as to the interface of PASS to MCR and the operation of the system with regard to gates, resets, sweeps, etc. W. MacKay, as the liaison physicist for ATR, and M. Harrison for the RHIC Project in general, will also help shape the evolution of the PASS system. The Radiation Safety Committee remains responsible for the necessary reviews of proposed system changes.

The following items were discussed as possible changes to be made to the system. Where possible, "target dates" for completion were assigned along with individuals responsible to help define the solution.

1. Eliminate the "Watchman box" for sweeps. Since some form of "reset station" is required by DOE for securing an area, the watchman box could be replaced by dedicated reset stations or defined sequence of resets of the access gates within an area. [10/96, Ingrassia, MCR, Frankel]
2. Controlled Access and Restricted Access of *each individual area* should be independent of each other, (e.g. one should be able to place U-line on Controlled Access and sweep & reset the area while leaving V target, V1 primary, W-downstream, X and Y on Restricted Access). In general, one area should be able to be swept while not requiring other areas to be on Controlled Access. [2/14/96, Etkin, Frankel]
3. Controlled Access needs to be simplified such that sweeps are not lost due to "holding keys too long" or other predictable human errors. A more detailed list will be generated by Ingrassia (for MCR) and given to Reece and Frankel by 12/22/95.

4. PLC code does not match the State Tables for both PLC divisions in some cases, (e.g. the V1 Primary area Div A requires UARC4 OFF *and* AGS beam OFF while Div B requires only UARC4 OFF). The PLC code must match the corrected 8/18/95 state tables in the RSC files that are the baseline tables. [2/14/96, Frankel, Etkin, Reece]

5. The MCR interface is extremely difficult to operate. The displays use "local" (e.g. mode, option) rather than "common" (e.g. PLC Div A in Restricted Access, Controlled Access, Beam Enabled, etc.) definitions. [10/96, Ingrassia, Reece, Frankel]

1. Suggest use CEBAF as template.
2. MCR has video display of site.
3. Colors of areas represent "state or mode".
4. Alarms can be viewed (in depth) via this interface.
5. If 10/96 cannot be met, the present interface should be improved for MCR.

6. The gate interface is essentially useless to other than an expert. It should indicate simple states (e.g. gate open/closed, gate reset/not reset, area Controlled Access, area Restricted Access, Area Beam Enabled, area crash, etc.). [try 10/96 for new areas; retrofit existing areas soon after Ingrassia, Frankel, McGeary]

7. The ATR/g-2 PASS system wiring documentation must be completed *and* verified in each cabinet. [2/14/96, Frankel, Lambiase]

8. The chipmunks should revert to the 2.5urem/pulse output. The count granularity is presently too large. [10/96 (design complete) Geller, Frankel]

9. Monitoring, alarming, logging and providing the history of chipmunk data is required in the same format as the present AGS chipmunks. An interim solution will be ready by 2/14/96. [Ingrassia, Frankel: ref. Mtg. Minutes 11/9/95 attached] A comprehensive solution should be available for FY 97 operation [10/96, Ingrassia, Frankel, Geller]

10. A "proton mode" and "heavy ion/low intensity mode" should be defined "for the facility". Included is the addition of the H10 Ejector magnet as a second critical device with UD1&2 for U-line access in "heavy ion/low intensity mode". [10/96, Reece, Etkin, Frankel]

11. Key trees and video cameras should be considered later (after the sextant test).

12. Strobe lights are defective in the g-2 areas. This problem is being addressed by R. Frankel and will be corrected ASAP.

Meeting Minutes: INTEGRATING RHIC CHIPMUNKS INTO THE AGS MONITORING/REPORTING SYSTEM --Thursday 9 November

Persons at the meeting included: A. Abola, D. Barton, V. Castillo, R. Frankel, J. Geller, P. Ingrassia, E. Lessard, K. Reece, W. Sims, J. Skelly, R. Thern.

A. Background information

The purpose of the meeting was to:

1. examine a few alternative methods that could be used to integrate the new RHIC style chipmunks into the AGS monitoring system
2. determine what work is required to complete the various alternatives and who would be required to perform the work.
3. determine when a final solution needs to be implemented

Integration requirements dictated by AGS OPM 6.1.2 and 6.1.3:

1. Generate Alarms in MCR using conventional display
2. Log dose rate history using conventional application
3. Log Chipmunk interlock history

Alternative methods included:

1. running new coaxial cables to the Chipmunks from centrally located datacon scalar buckets
2. interfacing a PASS PLC directly with the Controls System
3. interfacing a PASS PLC directly with Datacon Scalers

B. Meeting

1. Alternative method 2 is most preferable because it represents a final solution. Unfortunately it depends heavily upon the workloads of Frankel and Abola/Skelly (all heavily committed) through the target date of 1 March.
2. Alternative method 3 is the second most preferable but it represents an interim solution that has limitations (can only report a maximum of 1.8 rem/hr dose rate given the present PLC system). This method also depends upon Frankel's workload.
3. Alternative method 1 is the least preferable since it is recognized to be an interim solution and it could be costly given the need to run coaxial cable. This solution requires little of Frankel's or Abola's or Skelly's time but it depends heavily on technician time (another scarce commodity)

C. Conclusions

1. Plan to have an interim solution implemented by 1 March 1996
2. Plan to have a final solution implemented by February 1997 (Sextant Test)
3. Estimate costs for Alternative method 1 (Bastedo, Geller, Ingrassia, Stillman)

11/15/95

Ingrassia

AFI

*I have had a chance to interview only one operator to date, and here is a summary of his comments. These concerns should be closed out for g-2 operation:

- The Operator feels the 30-second timer is not long enough. Consequently, an operator in MCR has to hold a button down until he/she gets a phone call that people are out and the gate is closed. This is awkward at best. The Operator would like an indicator light in the MCR to indicate when a gate is re-closed so he may take his finger off the button.
- The connector on sweep check boxes is not felt to be structurally sound. The Operator is afraid the one and only watchman's box will fall and crash to the floor during a plug-in period. The metal plug on the watchman's box appears to be shorting the pins and causing a re-sweep. The Operator suggests that a plastic plug with an extender be used.
- Lights on the AGS security system indicate trouble, and no lights indicate OK. Lights on the new PASS indicate either trouble or OK depending on which light is in question.

Lessard to Distribution

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11/09/95

The Operator feels this inconsistency is very confusing. It may be best to choose a consistent state for OK and a consistent state for trouble.

- The Operator reports that no light-test-button appears on any PASS panels in MCR. This safety deficiency had been pointed out by prior Tiger Teams visiting AGS and was corrected for the AGS security system. The PASS should be similar to the AGS security system in this regard.
- Some lights in MCR light up but the gate or device does not exist yet. This is confusing to the Operator who feels these lights should not be labeled yet and their lights should be removed.
- The operator feels that there is too much baggage to drag around to do a sweep. He feels one should install low-cost phones rather than have an operator carry this item. Also, the locks should not be carried around and should be allowed to remain near the gates even during the access allowed states.
- On Panel 1, the Division A and Division B lights do not agree when there is trouble. The Operator is puzzled by this inconsistency.
- Selecting Panel 1 Options too fast causes the PASS to hang and give an error message. This may be a feature designed into the PASS, but if it is not a design feature then it must be investigated since this feature might not be fail safe.
- The sweep procedure may have Building location errors and should be walked through again.