

AGS/RHIC

Radiation Safety Committee Memo

To: RSC File

From: JW Glenn

Aug 14, 2007

Subject: Requirements for Moving Access Control from MCR to NSRL

The following met on Aug 13 to establish the RSC requirements for Access Control modifications to allow local control of access into the NSRL exposure cave between irradiations:

JW Glenn, A Etkin, P Ingrassia, J Reich, B Oerter, A Rusek, & D Beavis

The plan to move access control out of MCR to NSRL allows removal of a job that requires a skill set that our operators are not comfortable with. Also, due to the high attrition of operators, half of them are new to running our accelerators and the rest have only a year or two on the job. Thus a lot of training for them is planned using the time between NSRL cycles to train the new operators. Lastly this move is required to allow parallel operation, with local observation, of the new automated access control planned by Rusek in order to certify its reliability.

Notes by Rusek, sent Aug 9, were used to define what is desired to be moved. This Subcommittee felt that the list could be trimmed and maintain safe functionality. Our final list of required operator interface items to be moved is:

1. All the operator interface equipment to be moved is equipment to allow the operator to direct appropriate administrative control on beam operations. This equipment is not part of the interlock strings.
2. The 'mode switch', a 24 VDC contact requiring a pair of wires [16 gage or larger] connected to the Access Control PLC above the MCR.
3. The 'touch screen' that provides operator interaction.
 - a. It will connect to the PLC in 911 via a local PC and the control group's Ethernet link at NSRL
 - b. It will need to have it's software 'reverted' to an earlier version that only controls the NSRL gate.
4. Two 'touch pads', each requiring a wire pair to the PLC in 911.
5. The iris scan data will be available as a locally run existing application.
6. Save for the touch screen software reversion, no other programming changes are needed.
7. The cables needed for this interface move can be pulled as part of shutdown work.

With the work that the Access Control Group plans before Booster start up, this move is not feasible before NSRL comes on this fall. The present thinking is to replicate the operator interfaces at NSRL, then test it and switch it over during periods when NSRL is not running. Until that time, I understand, Rad Control Techs will control access from the MCR. A touch pad will need to be ordered as there is at this time only one spare. A spare touch screen exists and after the switch over the one in MCR will be a hot spare for RHIC access.

Cc:

Those present
RSC Members
P Bergh
F Pilar
P Pile
T Roser

Notes from A Rusek of Aug 8, '07

Plan to move the NSRL access control station from MCR to NSRL.

Peter Ingrassia has initiated a push to move the NSRL access control station from MCR to NSRL. This move will enable us to streamline the operation to some extent, make the operation easier, and with the option of using HP personnel for the gate watch, take operators almost entirely out of the loop. This can also be seen as an intermediate step towards the operator-free access system, expected to be commissioned in the spring of 2008. The move will require some action on various parties, which we will outline below.

1. The performance of the RD1/RD2 power supply must be improved so that we can do the access from NSRL without having to turn the beam-stop key, which will not be moved out of MCR (R.Bonati).
2. The touch screen will be moved to NSRL and hooked up, and the iris reader software application setup, so that access control can be carried out locally near the NSRL target room gate, likely by the already present HP personnel (J. Reich).
3. If deemed desirable and feasible, the touch pads currently used to perform the simultaneous release by the gate-watch operator will be replaced by the already existing touch screen button which serves the same purpose (J.Reich). In such a case:
4. A revised procedure for operating the access control system will have to be produced (P.Ingrassia)

Peter has done some footwork and has reported the following:

1. Moving the system as is to NSRL is both doable and relatively easy.

2. We have a history of using HP technicians for gate watch in a primary beam line, namely, the A-line during NASA runs.
3. Beam-stop switching, if needed, can be done from MCR.
4. Target room sweeps will involve MCR (minimally).

Adam has the following concerns:

1. Getting the RD1/RD2 magnet power supply to recover quickly so as not to lose too much time on access.
2. Making the operation of the access station sensible, in light of the fact that the operation will now be local, not over a camera. Trying to keep the HP techs from having their hands tied up in access control. Perhaps even doing away with the simultaneous release and providing a crash button for sweep-dropping (was simultaneous release used for local gate watch in the past?). Realizing that time is short, just moving the operation to NSRL as is would indeed be the sensible thing to do but something must be said for streamlining.

Ingrassia's Concerns:

1. The operator-less system is expected to be commissioned in the spring of 2008. Since this move is intended to be temporary, He advocates moving the system "as is".

In the wider view, the commissioning of the operator-free access system will require a period of monitoring and perhaps a backup in case it springs problems. Having a local station is perfect for both tasks, and preparing it now rather than during the spring run is a very good idea.

Whatever solution we select, we need to move on it very soon, as the run will start on September 6th, less than a month away.

AGS/RHIC

Radiation Safety Committee Memo

To: RSC File

From: JW Glenn

Aug 15, 2007

Subject: RSC Checklist Items for Moving Access Control from MCR to NSRL

The move of the operator interface requires no change in functionality for this fall's NSRL run. By next spring there will be equipment added to the system to automate access that will have to be formally verified as to its reliability. Thus the details of the configuration of the Access control equipment may again be different for the spring '08 run. Thus the appropriate procedure to follow is OPM 4.92. A draft "Change Request" is attached. The authorization period of the change is 75 days so this fall NSRL run will be covered. At the end of the period the changes should not revert but NSRL be RS LOTO'ed until the RSC decides either the change can be made permanent or modified to accommodate the to be installed automatic system's verification.

Thus the RSC Check List Items are:

- 1) A PASS/ACS TEMPORARY CHANGE REQUEST [4.92a] be approved – **CK-NSRL-FY08-517**
- 2) The Touch Screen panel's software be reverted to only allow control of the NSRL area – **Ck-NSRL-FY08-518**
- 3) A test procedure be written by modifying the current procedure with the new location indicated. – **CK-NSRL-FY08-519**
- 4) The MCR procedure for NSRL access needs updating for use at the NSRL station – **CK-NSRL-FY08-520**

Cc:

Those present
RSC Members
RSC NSRL file
P Bergh
F Pilar
P Pile
T Roser

Draft Change Request:



PASS/ACS TEMPORARY CHANGE REQUEST

Type of Change Request: **Bypass X Temporary Change** Temporary CHIPMUNK Change

Request No.:	Date: 8/15/2007	Requested By: JW Glenn		
Dwg/Spec/Other No:				
<p>Description of Change/Bypass: (Note: If this is to be a permanent change/bypass, an ECR/ECN must be prepared)</p> <p>Replacate touch screen, touch pads and mode switch, used in MCR to control access to NSRL, at the HO desk area at NSRL.</p> <p>After test of new equipment, and RSC check list completion, move control NSRL access control to NSRL.</p> <p>Note: NSRL is to be disabled until RSC decides to make this change perminate or further modifications are approved.</p>				
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	Expected Expiration Date: 11/15/07			
<p>Explanation of continued Safety Functionality after change/bypass is incorporated: No change in functionality of ACS equipment, only movement of location.</p>				
<p>Description of Change/Bypass Validation Test [to be written]</p>				
<p>List of equipment used for Bypass (type and serial numbers, if applicable) NoneT</p>				
APPROVAL				
Access Controls Group Cognizant Engineer Date _____				
Access Controls Group Leader Chief Electrical Engineer _____ RSC Chairman or designee (Bypass and/or Change)	RSC Member Physicist (required)			
STATUS				
Change/Bypass Incorporated By: Date:				
Validation Test Completed By: Date:				
Operations Coordinator/MCR Notified By: Date:				
Date Change/Bypass Removed: Signature:				
Date Re-Issued: Signature:				
Date Expiration Acknowledged: Signature:				