

# Memorandum

**Date:** February 24, 2017  
**To:** All Controlled Access Users  
**From:** Don Cossairt, Senior Radiation Safety Officer   
**Re:** Controlled Access Updates – Lifting Interim Controlled Access Rule

Don Cossairt  
Senior Radiation Safety  
Officer

**ESH&Q Section**  
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**Message:**

The Chief Safety Officer (CSO), Martha Michels, has lifted the interim Controlled Access (CA) rule that required Controlled Accesses be made by two people only. Effective Monday, February 27, 2017 Controlled Accesses will be allowed by two or more people, depending on the number of keys available for the particular enclosure.

The new requirements outlined in the January 13, 2017 memo "Controlled Access Updates", and currently in effect, will continue to be enforced. These requirements include:

1. Key barcode number on Radiological Work Permit (RWP)
  - a. Each person issued a CA key must note the barcode number for the key they were issued on the RWP Sign-In Sheet. A range of barcode numbers for the enclosure will be indicated in the top right corner of the sign-in sheet to verify the key and RWP are for the same enclosure. Please see Figure 1 for an example of the new RWP. NOTE: Accessors must obtain a key before signing the RWP.
2. Entry Leader for each access party
  - a. Each access party must designate one individual to be the Entry Leader. The Entry Leader must visually verify each member of the access party has the correct key for the enclosure to be accessed at the entrance before starting the Controlled Access. More details about this role and their responsibilities can be found on each Controlled Access RWP sign-in sheet (see Figure 1).

All individuals who perform a Controlled Access are responsible for understanding and following these new requirements.

Thank you for your cooperation as these corrective actions and other improvements were implemented over the past year. Your continued efforts to implement the updated Controlled Access procedure help to assure personnel safety. A list of the corrective actions and the approval memo from Martha lifting the interim rule is shown at the end of this memo. If you would like to see more detail on the corrective actions, or if you have any questions, please feel free to contact Maddie Wolter, RSO Group Leader, (x4807, [maddiew@fnal.gov](mailto:maddiew@fnal.gov)) or Don Cossairt, SRSO, (x3465, [cossairt@fnal.gov](mailto:cossairt@fnal.gov)).

## RWP – Controlled Access Example

**Booster  
CONTROLLED ACCESS  
RWP SIGN-IN SHEET**

RWP Number  
**AD-17-002**  
Key barcode # range:  
**1131-1164**

By signing the last column below, I agree to observe all RWP requirements. My signature also confirms that I understand that I am responsible for ensuring that my access party designates one member to be the Entry Leader at the enclosure entrance and that this person is responsible for ensuring that everyone in the access party visually verifies that everyone in the access party has the correct key at the enclosure entrance. This is the only secure way to protect myself from beam exposure.

Employee I.D. No.	PRINT NAME	DATE	JOB LOCATION OR DESCRIPTION	Key barcode #	LEVEL OF PROTECTIVE CLOTHING	LSM NUMBER	SIGNATURE

**Two New Requirements (January 2017):**  
**1. Entry Leaders for each access party**  
**2. Log Access Key bar code numbers**

Figure 1. Updated Controlled Access RWP Sign-In Sheet.

 **Fermilab**  
Memorandum

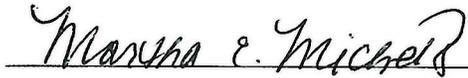
February 22, 2017

**To:** Martha Michels, Chief Safety Officer**From:** John E. Anderson, Jr., Associate Head, ESH&Q Section  
J. Donald Cossairt, Senior Radiation Safety Officer**Subject:** Proposal to Remove the Interim Controlled Access Corrective Action of March 2, 2016

This memo reports on the completion of the requirements proposed to you in a memorandum dated November 9, 2016 that you approved on November 11, 2016, to remove the Interim Controlled Access Corrective Action established in response to the Booster Controlled Access incident of March 1, 2016. That memo states: "Continue to enforce the interim corrective action, put in place March 2, 2016, that requires individual Controlled Accesses to be performed by only two people, pending implementation of improved Controlled Access training and approval of engineered or administrative controls by the Chief Safety Officer."

In a table appended to this memo, we now report on the completion status of the approved new requirements that were discussed with you in a meeting held on February 21, 2017 attended also by Amber Kenney, Eric McHugh, Maddie Wolter, Matt Quinn, Wayne Schmitt, and Duane Newhart.

Upon your approval of the completion of these actions, we shall remove the interim corrective action. As we discussed on February 21, 2017, those qualified for controlled access will be notified in writing of this change and the new requirements when the interim corrective action is lifted.

 Martha E. Michels 2-22-17

Approved: Martha Michels, Chief Safety Officer

Date

CC: A. Kenney, M. Quinn, M. Wolter, D. Newhart, E. McHugh, W. Schmitt

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Description	Completion Status
Update Fermilab Controlled Access training to more clearly communicate the crucial requirements including the necessity of possessing the correct Controlled Access key, and remove the ability for workers to proceed directly to the challenge exam without viewing training materials.	Completed Prior to 11/9/2016
The review team agrees with the recommendation from the investigation regarding conducting spot checks at enclosure entrances. These spot checks will help verify personnel have been issued the correct keys and function as a simple oversight process that is easily performed. Spot checks should be mentioned in the Controlled Access training so that personnel are aware of the oversight processes in place that help ensure their safety.	Completed Prior to 11/9/2016
The Operations Department should document the key logging procedure. The procedure should include involvement of the Duty Officer to ensure all current processes are captured, including all training verification methods for example.	1/27/2017
Update the MCR Controlled Access poster. There was a training poster hanging in the MCR that contained outdated information that should be updated to reflect current Controlled Access requirements. It should also include a picture of personnel visually verifying keys at an enclosure entrance.	1/27/2017
Document the risks and mitigations in place for leaving someone in an enclosure at startup. Fatality likely, frequency high. Mitigations - locked enclosure entry doors, access control interlock system, audio warnings, two person accesses to beamline enclosures, controlled access training, access leader, RWPs updated to visually verify keys, RWP sign-off form updated to identify required keys, key issue procedure, etc.	2/6/2017
A Job Leader be identified for each team performing a Controlled Access. The identification of a Job Leader for each team assigns management responsibility for maintaining key possession and is another verification step for ensuring personnel have received the correct key and maintain it throughout the Controlled Access. Responsibilities of the Job Leader would include ensuring keys are visually verified prior to enclosure entry, team maintains possession of their keys throughout the access, and that personnel return their keys personally to the Main Control Room when complete. <i>This action was completed by adding the requirement to select an Entry Leader for each controlled access to the sign-in sheet for Controlled Accesses.</i>	1/25/2017
Revise RWPs to explicitly state that personnel should visually verify keys at the entrance to the enclosure. This enforces the importance of key verification prior to entrance to the enclosure.	1/25/2017
Revise RWPs sign-off form: a. Add Job Leader field to the RWP sign-off required to be completed by personnel entering the enclosure. This ensures the team members acknowledge and are aware of who the Job Leader is, and documents it for record keeping purposes. <i>The term actually used was "Entry Leader"</i> b. Add a key barcode number field to the RWPs to be completed by personnel entering the enclosure. Addition of this field to the RWP sign-off form may mean that the process for completing the sign-off form must now occur after personnel have received keys. By making this a required field on the form, this ensures personnel double check the key they were issued by the MCR and is an added layer of verification that they have been issued the correct key. c. Add the range of barcode numbers associated with the enclosure(s) listed on the form. Each sign-off form is specific to the enclosure(s) specified on the RWP, and by adding the range of barcode numbers associated with keys for that particular RWP and its specified enclosure(s) it is adding a verification step to the process. Personnel will be able to identify the correct key was issued based on the barcode number range listed on the form.	1/25/2017

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