Escorted Entry to Accelerator System Controlled Areas during ACIS Access Modes

Changes made in this revision:

- Replaced APS Director with PSC/Deputy ALD-Operations as an approver
- Revised to apply only to visitor access and to reflect current practices.

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Table of Contents

1 INTRODUCTION 3
1.1 Purpose 3
1.2 Scope 3
1.3 Applicability 3
1.4 References 3
1.5 Type of Procedure 3
1.6 Hazard Controls 3
2 BACKGROUND 3
3 ACCESS REQUIREMENTS 4
3.1 Access Control 4
3.2 Access Authorization 4
4 PREPARATION OR PREREQUISITE ACTIONS 4
5 PROCEDURE 5
5.1 Escorting Visitors within Accelerator System Controlled Area(s) 5
5.2 Temporary Removal of Controlled Area Posting for Specific Locations for Preplanned Tours 5
6 CLOSEOUT OR POST-PERFORMANCE ACTIVITY 6
7 DOCUMENTS/RECORDS CREATED BY THIS PROCEDURE 6
8 TRAINING REQUIRED 7
9 FEEDBACK AND IMPROVEMENT 7

Escorted Entry to Accelerator System Controlled Areas during ACIS Access Modes

1 INTRODUCTION

1.1 Purpose

This procedure describes the methods by which visitors may have escorted entry into the controlled access areas of the linac, PAR, booster, or storage ring (i.e., accelerator tunnels) during ACIS Access Modes.

1.2 Scope

This procedure is to be used for escorted entry into the APS accelerator tunnels where residual radiation fields previously existed and have been surveyed by health physics prior to posting these areas as controlled access.

1.3 Applicability

This procedure is used to allow escorted access to visitors for tours of the areas.

1.4 References

LMS-PROC-146 External Dosimetry
LMS-PROC-147 Access Control

1.5 Type of Procedure

This is a "Management Control Procedure."

1.6 Hazard Controls

Radiological hazards may be present. Safety shoes and safety glasses must be worn while inside the controlled access areas unless waived for visitors on a tour. Training identified in section 8 must be current.

2 BACKGROUND

The accelerator tunnels are posted as Controlled Areas following the initial HP survey conducted for an ACIS Access Mode. The specific posting is for a "Radiation Material Area" with the minimum radiological unescorted entry requirements being 1) completion of ESH700, Radiological Worker I training, and 2) personal dosimetry. In addition, ASD requires completion of course ASD102, Tunnel Safety, for unescorted entry and adds completion of course ASD125, ASD Lockout/Tagout, for personnel performing hands-on

work or work near potentially energized components. People who have not completed the requisite training or who have not been issued an Argonne dosimeter are prohibited from entering the enclosures unless escorted by a qualified APS employee.

3 ACCESS REQUIREMENTS

3.1 Access Control

All visitors must be escorted for entry into the controlled access areas of the accelerator tunnels during an ACIS Access Mode.

3.2 Access Authorization

The APS Health Physicist and MCR crew have the authority to deny access to a visitor or APS employee.

4 PREPARATION OR PREREQUISITE ACTIONS

In order to enter the accelerator tunnels, escorted visitors must have safety glasses, safety shoes, either personal or temporarily-issued dosimeters (only if the entered area remains posted as a Controlled Area with dosimetry required), and a qualified escort. Dosimeters temporarily issued to visitors are provided by the APS Health Physicist during normal working hours and MCR crew during off-hours. The APS Health Physicist may waive the dosimeter requirement.

Escorted visitors may have the safety glasses and safety shoes requirements waived by a divisional or ALD-level safety coordinator.

Preplanned tours of the accelerator tunnels to groups of visitors must be during normal working hours.

Visitors are not permitted to perform hands-on work or work near potentially energized components.

Qualified escorts must be current in all required training.

If more than eight (8) individuals are to be escorted, more than one qualified escort is required, and they must be broken into groups of eight individuals or less per qualified escort prior to entry. No more than eight individuals may be escorted by a single qualified escort.

5 PROCEDURE

This section is subdivided into two subsections separately addressing escorted visitors, and temporarily removing the controlled area posting for specific accelerator tunnel segments for purposes of conducting preplanned tours.

5.1 Escorting Visitors within Accelerator System Controlled Area(s)

Step	Responsible Person	Action
1	Visitor Host	a. Identifies all visitors who require escorted entry to access accelerator tunnel controlled areas for a tour b. Brings the visitors requiring escorted entry to the APS Health Physicist during normal working hours or the MCR outside normal working hours) prior to entry and identifies qualified escort
2	APS Health Physicist or MCR Crew	a. Issues a temporary dosimeter to each visitor if the visitor can provide evidence of GERT completion. OR b. (Applies to APS Health Physicist only) Provide a qualified-HP technician to perform radiological surveys as part of the entry in lieu of issuing dosimeters. OR c. (Applies to APS Health Physicist only) Waive the dosimeter requirement after discussing radiological conditions with the qualified escort.
3	Qualified Escort	a. Discusses current radiological conditions with APS HP prior to entry OR with a qualified ESQ-HP technician performing a radiological survey as part of the entry b. Briefs visitors in any restrictions due to radiological or other conditions within the controlled area, including basic accelerator tunnel safety rules c. Ensures visitors do not violate basic accelerator tunnel safety rules
4	Escorted Individuals	Adhere to directions provided by qualified escort

5.2 Temporary Removal of Controlled Area Posting for Specific Locations for Preplanned Tours

Step	Responsible Person	Action
1	Visitor Tour Host	a. Identifies all visitors who require a tour of specific area(s) of the accelerator tunnels that are posted as a controlled area

		b. Requests APS health physicist to perform a radiological survey of the area(s) to be toured to determine if current radiological conditions permit temporarily removing the posting for purposes of the tour
2	APS Health Physicist	a. Directs performance of a radiological survey of designated segments b. Reviews results to determine if controlled area posting can be temporarily removed c. Removes posting as appropriate and notifies Visitor Tour Host and MCR Crew of this action
3	Visitor Tour Host	Brings the tour visitors to the APS Area Health Physicist and identifies intended qualified escort
4	Qualified Escort	a. Discusses current radiological conditions with APS HP prior to entry b. Briefs visitors in any restrictions due to adjacent controlled area boundaries or other conditions within the section being toured, including basic accelerator tunnel safety rules c. Ensures visitors do not violate basic accelerator tunnel safety rules
5	Escorted Individuals	Adhere to directions provided by qualified escort
6	APS Health Physicist	Restores controlled area posting once visitor tour has been completed and all escorted visitors have left the area(s) toured

6 CLOSEOUT OR POST-PERFORMANCE ACTIVITY

Anyone issued a temporary dosimeter must return it to the APS Health Physicist or the MCR prior to leaving APS. Qualified escort briefs the APS Health Physicist or MCR crew on any unusual or abnormal conditions noted during the tour.

7 DOCUMENTS/RECORDS CREATED BY THIS PROCEDURE

The documents/records listed below will be created in the execution of this procedure and must be retained as indicated.

Description of Document/Record (include ID number, if applicable)	Custodian	Storage Location and Medium	Retention Requirement
Completed form ANL-141 for obtaining, transfer, or withdrawal of a dosimeter	ESQ External Dosimetry group	Index by badge number, store on paper or electronically	Destroy 75 years after dosimeter has been returned by a non-employee or after employee leaves employment (DOE ADM 1.21.4)

8 TRAINING REQUIRED

A qualified escort must always be current in the following courses:

- ASD102 – Tunnel Safety
- ASD125 - ASD Lockout Tagout
- ESH700 – Radiological Worker One

9 FEEDBACK AND IMPROVEMENT

If you are using this procedure and have comments or suggested improvements for it, please go to the APS Policies and Procedures Comment Form* to submit your input to a Procedure Administrator. If you are reviewing this procedure in workflow, your input must be entered in the comment box when you approve or reject the procedure.

Instructions for execution-time modifications to a policy/procedure can be found in the following document: Field Modification of APS Policy/Procedure (APS_1408152).

* https://www1.aps.anl.gov/Document-Central/APS-Policies-and-Procedures-Comment-Form