

ACCELERATOR DIVISION ES&H PROCEDURE

ADSP-01-0001

ACCELERATOR DIVISION TWO-PERSON RULE POLICY

RESPONSIBLE DEPARTMENT ESH&Q AD DSO

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Eric McHugh	Adjusted roles and titles to reflect organizational changes. Added revision history Added language to clarify persons are to be in contact with each other and account for each other	8/27/2018

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## 1.0 INTRODUCTION AND DEFINITION OF TWO-PERSON RULE

The two-person rule is to be followed by those subject to this policy for all hazardous work activities as defined in this policy.

Two-Person Rule Definition - Requirement for the presence in a work area of at least two people able to readily establish and maintain two-way communication, visual or verbal and are cognizant of each other and account for the other person.

The primary purpose for the two-person rule is to provide rapid assistance to employees in the event of an emergency. Though this assistance may involve some form of personal assistance or intervention, the contacting of emergency personnel by dialing **x3131** is most often the action to be taken.

## 2.0 HAZARDOUS WORK ACTIVITIES

Hazardous Work Activities Definition - Hazardous work activities are defined as activities that present a significant potential for causing incapacitating illness or injury. There are two types of hazardous work activity: area-specific (see 2.1) and job-specific (see 2.2).

In general, subject to the minimum criteria established in item 2.2 below, the responsibility for determining whether a job-specific activity is a hazardous activity, and thus requires the application of the two-person rule, resides with the supervisor of the employees involved. The determination is to be made and communicated to the employees prior to the start of the work. The supervisor must take into consideration the experience level of the individuals assigned, the hazards associated with the assigned task, and the availability of personnel to request help if an injury occurs. Special consideration should be made for application of the two-person rule for work in remote experimental areas such as Meson Detector Building, New Muon Lab, Muon Test Area (MTA), E4R, MS-6, etc. If there is any reasonable doubt as to applicability, the rule shall apply.

An employee informed of the requirements and applicability of the two-person rule also bears responsibility for the application of the rule in their conduct of assigned work activities. This responsibility is not diminished by the absence of the supervisor or by the lack of a determination by the supervisor of applicability of the rules to the task at hand. If there is any reasonable doubt as to applicability of the rule on the part of the employee, the employee shall contact his/her supervisor or the Accelerator Division, Division Safety Officer (AD/DSO) for determination or shall apply the rule.

Each of the individuals should be aware of the specific hazards involved in the work activity. Each has a responsibility to advise the other employee of changing situations that may affect the conduct of the task at hand and to recommend safer alternative methods of performing the work than those utilized.

## 2.1 AREA-SPECIFIC HAZARDOUS WORK ACTIVITIES

Area-specific hazardous work activities are not subject to individual interpretation and in AD are defined to be the following:

- a) **All accesses to AD-controlled accelerator, beamline, and experimental enclosures (i.e., tunnels),**
- b) **All accesses to ODH areas classified as Class 2.**

Where questions arise regarding the applicability of the Two-Person Rule for specific areas, the Accelerator Division, Division Safety Officer (AD/DSO) should be consulted for guidance and determination of applicability.

## 2.2 JOB-SPECIFIC HAZARDOUS WORK ACTIVITIES

Job-specific hazardous work activities are generally subject to interpretation by AD supervisors and are defined to include:

- a) Work that involves a significant physical (electrical, mechanical, etc.) or chemical hazard,
- b) Work on or near exposed and energized electrical conductors (>50 volts) including testing and troubleshooting,
- c) Work in remote areas for which there is a reasonable potential for incapacitating illness or injury,
- d) Specific hazardous work activities as specified by the Fermilab ES&H Manual or by other AD ES&H Procedures.

## 3.0 APPLICABILITY AND IMPLEMENTATION OF THIS POLICY

This policy applies generally to Accelerator Division employees in Accelerator Division areas or at any location on Fermilab premises while performing tasks related to their employment.

The requirements of this policy are generally not applicable to personnel that are not members of the Accelerator Division, however, the following describes when it does apply to non-AD personnel:

- All persons accessing AD-controlled accelerator, beamline, and experimental enclosures (i.e., tunnels) are to comply with the two-person rule.
- All persons accessing AD-controlled ODH Class 2 areas are to comply with the two-person rule.
- All persons performing work for the Accelerator Division under the direct supervision of an Accelerator Division employee are to comply with this policy. (I.e., whether or not the Two-Person Rule is to be followed for a specific task is to be determined according to the criteria contained in this policy as if the individual was an employee of the Accelerator Division.)

The two-person rule is not to be interpreted as a requirement for an unexposed observer. The employees applying the two-person rule are not precluded from performing work together. Commensurate with the potential hazard, care should be taken in job-specific hazardous work activities that both employees are not simultaneously subject to the hazardous condition.

The organization performing an activity which requires two people under this policy is expected to provide the second person to meet the requirements of the two-person rule.

NOTE The Fermilab ES&H Manual (FESHM) Chapter 9120 requires two people be present for work on energized AC electrical distribution systems. These persons must generally be qualified electricians. When the work is on an energized AC electrical distribution system having voltages less than 130 VAC terminal-to-ground or 250 VAC terminal-to-terminal, the second person need not be a qualified electrician.

FESHM Chapter 9110 conditionally requires that two people be present for work on, testing, or debugging of energized high power electrical equipment.

FESHM Chapter 4230 requires an unexposed authorized attendant for confined space activities.

FESHM Chapter 4240 requires two persons be present for ODH Class 2 operations.

Two persons, at a minimum, are always required to access an interlocked enclosure on a Controlled Access.

General exceptions to the two-person rule concern specific types of access to and egress from AD-controlled accelerator, beamline, and experimental enclosures.

- Single person access to these areas is allowed when that person is entering the area to join a work team or to perform inspections of work activities that are in progress. If other individuals are not encountered at the work site or sites as expected, the single person shall leave the area.
- A person who is a member of a work team of three or more individuals may exit such areas alone.

NOTE Access and egress by single persons to or from these areas shall generally be made by the nearest point of access or egress. It is not intended that single persons be allowed to travel extended distances in the enclosure in the course of performing inspections of or performing work at physically separate work sites.

#### 4.0 DISTRIBUTION

An electronic controlled copy of this procedure is maintained on the ESH Department website at:  
<http://www-bdnew.fnal.gov/esh/adsp/index.html>