

District Standard Owner		
Position	Printed Name	Date
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Revision Summary Change			
Rev	Date	Changes	Effective Date
01	07/21/2016	Updated to new District Standard format	07/21/2016
01A	11/4/2020	Updated to district template	11/4/2020
01B	5/14/2021	Minor spelling/grammar updates; changed footer to show as Energy Group.	5/14/2021

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1.0 Introduction

- 1.1 All projects shall protect employees from open hole hazards (floor opening >2" in the least dimension) through the use of covers and barricades.
- 1.2 This procedure applies to all Energy Group sponsored projects.

2.0 Definitions

2.1 Holes

- 2.1.1 Any void 2 inches (5.1 cm) or more in its least dimension, in a floor, roof, or other walking / working surface.

2.2 Floor Opening

- 2.2.1 An opening measuring 12 inches or more in its least dimension, in any floor, platform, pavement, or yard through which persons may fall such as a hatchway, stair or ladder opening, pit, or large manhole.

2.3 Gap

- 2.3.1 An opening 1" or greater between scaffold planks or grating.

3.0 Responsibilities

- 3.1 The project manager will be responsible for implementation of this procedure.
- 3.2 Superintendent's responsibilities include:
 - 3.2.1 Review of construction phase(s) at project pre-meetings to identify the creation of open holes
 - 3.2.2 Identify type of protection need
 - 3.2.3 Coordinate with support crews to ensure immediate covering of open hole when they are created.
 - 3.2.4 Ensure material is available to provide protection (wood, steel plating, fall protection)
 - 3.2.5 Create a detailed, written plan (Job Hazard Analysis), to include:
 - 3.2.5.1 Hazards associated with open holes
 - 3.2.5.2 Engineering controls needed to control or eliminate the hazards
 - 3.2.5.3 Size and type of material needed for protection
 - 3.2.5.4 Fall protection plan for working around open holes that pose a fall hazard to employees
 - 3.2.5.5 Means of signing and securing covers and barricades

4.0 Process

- 4.1 Project management should ensure that the various construction phases of a project are analyzed for potential open-hole hazards. These hazards should be eliminated during the pre-operation hazard analysis process.

- 4.2 Covers for holes in floors, roofs, and other walking/working surfaces shall meet the following requirements:
 - 4.2.1 Covers located in roadways and vehicular aisles shall be capable of supporting, without failure, at least twice the maximum axle load of the largest vehicle expected to cross over the cover.
 - 4.2.2 All other covers shall be capable of supporting, without failure, at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time.
 - 4.2.3 All covers shall be secured to prevent unintentional displacement.
 - 4.2.4 Covers must be clearly and permanently marked "OPEN HOLE - DO NOT REMOVE", or similar wording.
 - 4.2.5 Covers and Barricades Criteria
 - 4.2.5.1 Wood: Hole covers in areas of personnel traffic, with dimensions of less than 24 x 24", all holes will be covered with ¾ inch plywood, secured from movement. These covers will support two times the weight of employees (200 pounds), equipment and materials that may be imposed on the cover at one time.
 - 4.2.5.2 Steel plates: If the hole will have vehicle or equipment traffic, loading steel plates will be used and secured in place. All road plates will be properly sized and rated
 - 4.2.5.3 Guardrails: If a guardrail is used to secure an opening, it must be constructed to meet or exceed OSHA standards. When guardrails are used, covers are not required.
 - 4.2.5.4 Barricades: If barricades are used to isolate an open hole it must form a continuous barrier around the opening of the hole. Signage, warning employees of the hazard inside the barricade shall be used. All barricades shall be of rigid construction, rope and tape are not acceptable.
- 4.3 Fall protection shall be provided and used when working inside a barrier or guardrail that is protecting an uncovered floor opening that is greater than 12" in its least dimension and more than 6' above the floor below.

5.0 References

- 5.1 None