

SAFETY and HEALTH STANDARD

FIXED LADDERS, STAIRS and WALKWAYS

Effective Date: 03/26/10

Standard: 15.5

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Rev: 04

15.5.1 **INTRODUCTION**

15.5.1.1 It is KUC's policy to design, construct, and maintain access structures including fixed ladders, stairs, and walkways to prevent slips, trips and falls from occurring.

15.5.2 **REQUIREMENTS**

15.5.2.1 The following standards will be applied to the design, specifications and construction or modification of fixed ladders (including cages), stairs (including handrails), and walkways (including guardrails) by a qualified engineering resource.

- o MSHA 30 CFR 56 Sub Part "J".
- o OSHA 29 CFR 1910 Sub Part "D"
- o Uniform Building Code.

15.5.2.2 **Fixed ladders** refer to ladders that cannot be readily moved because they are an integral part of a building, structure or equipment. The following general requirements apply to fixed ladders:

- o Fixed ladders shall project at least 42 inches above landings, or substantial handholds shall be provided above the landings except those used where their access is covered with manhole covers or hatches.
- o Fixed ladders except on mobile equipment, shall be offset and have substantial railed landings at least every 30 feet unless backguards or equivalent protection such as safety harness and safety attachments are provided. When backguards or cages are required they must start at a point not more than seven feet from the bottom of the ladder.
- o Ladder safety devices may be used on tower, water tank, and chimney ladders over 20 feet in unbroken length in lieu of cage protection. No landing platform is required in these cases. All ladder safety devices such as those that incorporate lifebelts, friction brakes, and sliding attachments shall meet the design requirements of the ladders which they serve.
- o Fixed ladders shall be anchored securely. The minimum perpendicular clearance between fixed ladder rungs, cleats, steps, and any obstruction behind the ladder shall be 7 inches, except in the case of an elevator pit ladder, for which a minimum perpendicular clearance of four and one half inches is required.
 - All metal fixed ladders should be painted or otherwise treated to resist deterioration
 - Recommended clearance on the climbing side of the ladder is 30

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inches with 24 inches as the minimum clearance (unless caged) and a pitch of 75-90 degrees.

- 15.5.2.3 **Stairs and Walkways** - Structures will be washed or swept periodically to prevent the buildup of dirt or corrosion that could cause tripping or slipping. Structures shall be kept as dry as possible and free of ice, snow, and standing water.
- o Crossovers, elevated walkways, elevated ramps, and stairways shall be of substantial construction provided with handrails, and maintained in good condition. Where necessary, toeboards shall be provided.
 - o Walkways with outboard railings shall be provided wherever persons are required to walk alongside elevated conveyor belts. Inclined railed walkways shall be nonskid or provided with cleats.
 - o Openings above, below, or near travelways through which persons or materials may fall shall be protected by railings, barriers, or covers. Where it is impractical to install such protective devices an adequate warning shall be installed.
 - o Standard railings / handrails shall be provided on the open sides of all exposed stairways and stair platforms. Handrails shall be provided and used on at least one side of closed stairways preferably on the right side descending.
 - o Materials, debris, equipment, electrical cords, or hoses should not be stored, located, or routed within or on these structures.
 - o Regularly used walkways and travelways shall be sanded, salted, or cleared of snow and ice as soon as practicable.
 - o Permanent aisles and passageways shall be appropriately marked.
- 15.5.2.4 Applicable warning signs or other functional barriers to limit access to restricted areas will be installed.
- 15.5.2.5 Planned compliance audits will be conducted to ensure that all handrails, guardrails, grating, etc. are secure and in good working condition.
- 15.5.3 **RESPONSIBILITIES**
- 15.5.3.1 Area supervisors or a designated alternate will perform a daily visual workplace inspection to ensure that no debris, materials, or other equipment is blocking any stair or walkway and to determine if any damage has occurred. Corrective actions will be implemented, as appropriate. If damage is detected, the affected area will be immediately secured and reported for further action.

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REFERENCES:

Uniform Building Code Section 408, 1711, 3306 and 3307.

[MSHA](#) 30 CFR 56 Subpart J 57.1101-11017; 57.11025-11041.

[OSHA](#) 29 CFR 1910 Subpart D

KUC Safety and Health Standard 16.20 Fall Protection

KUC Safety and Health Standard 16.21 Portable Ladders

REVISION HISTORY:

MOC#	Description of Change	Prepared By	Date
11663	Scheduled review and update, also updated format and Document number added.	KUC Safety and Health Standards Committee	03/2010