

SAFETY and HEALTH STANDARD

PORTABLE LADDERS

Effective Date: 03/26/10	Standard: 16.21	Document Number: KUCSH0036	Rev: 04
--------------------------	-----------------	----------------------------	---------

16.21.1 INTRODUCTION

16.21.1.1 Ladders meeting the requirements of this standard shall be used to provide access to levels not readily accessible by permanent or temporary stairways, ramps, manlifts, or runways etc. This guidance does not apply to fixed ladders on buildings, structures or mobile equipment.

16.21.2 REQUIREMENTS

16.21.2.1 **Portable ladders** refer to ladders that can be readily moved or carried. When choosing a portable ladder, the following must be considered:

- o Activity (type of work and duration)
- o Type (step ladder, straight or extension ladders)
- o Length (convenient height without reaching)
- o Strength (determine the weight and stress the ladder has to bear)
- o Material (conductivity, weight, etc.)
- o Surface conditions (smooth, wet floor, level ground, solid surface)

16.21.2.2 All portable ladders shall be inspected prior to each use by a trained and competent person. The inspection should ensure the following:

- o All rivets and joints, nuts and bolts, feet, steps and rungs are secure.
- o On stepladders, spreaders and pail shelf function properly.
- o On extension ladders, rung locks, and rope and pulley are in good condition.
- o Ladder is clean, free of grease, oil, mud, snow, and other slippery material.

16.21.2.3 Any defects found through inspection or during use should be noted and repaired. When defects make the continued use of a ladder hazardous, the ladder shall be taken out of service and tagged with a Bad Order / Do Not Operate (Red Tag) and moved (if possible) to an area to prevent further use until the defect is corrected or the ladder can be properly disposed of. Tagged ladders shall not be used for any purpose.

- o Removing a Bad Order / Do Not Operate Tag from defective ladder is prohibited. Only those authorized and trained to make repairs are allowed to remove the tag once the repair is complete. The person removing the tag will notify the area supervisor that the defect has been repaired and the ladder can safely be returned to service.

16.21.2.4 The area immediately adjacent to the top and bottom of a ladder shall be kept free of debris, materials, equipment or other obstructions.

SAFETY and HEALTH STANDARD PORTABLE LADDERS

Effective Date: 03/26/10	Standard: 16.21	Document Number: KUCSH0036	Rev: 04
---------------------------------	------------------------	-----------------------------------	----------------

- 16.21.2.5 Persons may climb or descend a ladder without fall protection provided that they are able to face the ladder and have hands free for maintaining a 3 point contact. Tools or other work materials shall be carried in pockets or tool belt. Hand lines should be used to transport objects. Ladders must be ascended and descended one step at a time.
- 16.21.2.6 Where working at heights is necessary, a risk assessment shall be performed to determine whether a portable ladder is the most suitable access equipment compared to other equipment options. Personnel who are required to work at six feet or more above ground level must use adequate fall prevention or fall protection. Wherever practical, a safe working area must be provided by means of approved handrails, work platforms or scaffolds. In all other cases, fall protection must be used. (See KUC Safety and Health Standard 16.20)
- 16.21.2.7 Straight or extension ladders must be lashed, held, or secured while in use. Stepladders should be tied where possible and advantageous to the task (e.g. side-on working or where two free hands are needed). The options for securing a straight or extension ladder are as follows:
- o Tie the ladder to a suitable point,
 - o Use an effective ladder stability device (securing at the base);
 - o Securely wedge the ladder, e.g. against a wall;
 - o If none of the above can be achieved, foot the ladder. Footing is the last resort and should be avoided, where reasonably practicable.
- 16.21.2.8 All portable ladders should be stored on suitable racks in demarcated areas, where practical. If ladders are not placed on racks, they must be stored in demarcated areas.
- 16.21.2.9 All ladders must be equipped with slip-resistant bases (grippers, cleats or feet). Slip resistant bases are not intended as a substitute for care in placing, lashing or holding a ladder that is being used upon metal, concrete or slippery surfaces.
- o Portable metal or wood ladders shall not be used. Only fiberglass ladders are permitted.
 - o Ladders shall not be placed in access ways or other locations where they may be displaced unless protected by barricades or guards.
 - o The ladder shall be placed so that it has a firm footing. The feet of either a stepladder or an extension ladder should be level.
 - o A metal spreader or locking device shall be provided on each stepladder to hold the front and back sections in an open position when the ladder is being used.

SAFETY and HEALTH STANDARD PORTABLE LADDERS

Effective Date: 03/26/10

Standard: 16.21

Document Number: KUCSH0036

Rev: 04

- o Climbing higher than the third rung from the top on straight ladders or the second tread from the top on stepladders is prohibited unless a suitable handrail is available on the stepladder.
- o Ladder rungs, cleats and steps shall be parallel, level and uniformly spaced when the ladder is in position for use.
- o On all portable ladders it is prohibited to:
 - move them while standing on the rungs / steps;
 - slide down the stiles;
 - stand them on moveable objects, such as pallets, bricks, lift trucks, excavator buckets, or mobile elevating work platforms etc.; or
 - extend a ladder while standing on the rungs.

16.21.2.10 Straight or extension ladders shall not be tied or fastened together to provide longer sections unless they are specifically designed for such use.

- o When portable ladders are used for access to an upper landing surface, the ladder side rails shall extend at least three feet above the upper landing surface to which the ladder is used to gain access.
- o The slope or pitch (angle of inclination) shall not exceed one-foot horizontal distance for each four feet of vertical rise. If the base is too far out, the ladder may break or slip. If the base is too close to the wall, the ladder may tip backward.
- o Both sides of the top section of a straight ladder must be resting on a support.

16.21.3 **RESPONSIBILITIES**

16.21.3.1 All employees are responsible for visually inspecting a ladder prior to each use, any defects found must be noted and repaired. When defects make the use of a ladder hazardous, the ladder shall be taken out of service and tagged.

REFERENCES:

ANSI 14.1 to 14.5

OSHA 29 CFR 1910.26 – 27, and 1926.1053

MSHA 30 CFR Subpart J

KUC Safety and Health Standard 15.5 Fixed Ladders, Stairs and Walkways

KUC Safety and Health Standard 16.20 Fall Protection

REVISION HISTORY:

Page 3 of 4

Plant:

PRINTED COPIES ARE UNCONTROLLED

©Kennecott Utah Copper. The standards on the KUC Intranet website are considered the standard in effect and supersede all other revisions.

KUFM00076

SAFETY and HEALTH STANDARD PORTABLE LADDERS

Effective Date: 03/26/10	Standard: 16.21	Document Number: KUCSH0036	Rev: 04
---------------------------------	------------------------	-----------------------------------	----------------

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