

Kennecott Utah Copper Corporation Safety and Health Standards

Standard No.: 16.7
Scaffolding

16.7.1 INTRODUCTION

16.7.1.1 The purpose of this standard is to define specific requirements that must be applied to the use of all scaffolding at KUCC. The term "scaffold" means any temporary elevated platform (supported or suspended) and its supporting structure (including points of anchorage), used for supporting employees or materials or both.

16.7.1.2 This standard is not intended to provide specific instructions on scaffold erection or dismantling. Detailed requirements for the erection or dismantling are available through the manufacturer of the scaffold, OSHA 29 CFR 1926.451, or [ANSI](#) standards A10.8.

16.7.2 REQUIREMENTS

16.7.2.1 Scaffolds shall be provided for employees engaged in work that cannot be done safely from the ground or from solid construction, except for such short periods of work as can be done safely from ladders or aerial manlifts.

16.7.2.2 Scaffolds shall be designed by a competent person and shall be constructed and loaded in accordance with that design.

- Scaffolds shall be erected, moved, dismantled, or altered only under the supervision and direction of a competent person. Such activities shall be performed only by experienced and trained employees.
- Scaffolds and scaffold components shall be capable of supporting, without failure, its own weight and at least four times the maximum intended load applied or transmitted to it.
- If scaffolding is leased or purchased, safety instructions for erection and use must accompany the equipment. Never interchange the scaffolding components from different manufacturers.

16.7.2.3 The following are requirements to be completed prior to the erection of the scaffold:

- The job site shall be inspected to determine ground conditions or strength of supporting structure, proximity of electric power lines, overhead obstructions, wind conditions, and the need for overhead protection.
- The footing or anchorage of scaffold shall be level, sound, rigid, and capable of carrying the maximum intended load without settling or displacement. Unstable objects such as barrels, boxes, loose bricks, or concrete blocks are not to be used to support scaffolds or planks.

References:

OSHA 29 CFR 1910.28

OSHA 29 CFR 1926.451

[ANSI](#) standards A10.8

KUCC Safety and Health Standard 16.20 Fall Protection (Working at Heights)

Signatures

Original signed by:
Frank Klobchar

8/5/04

Original signed by:
Chris Crowl

8/10/04

Original signed by:
Bill Champion

8/18/04

Standards Committee
Chairman

Date

Vice President Human
Resources

Date

President, KUCC

Date

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- All equipment shall be inspected to see that it is in good condition and serviceable. Damaged or deteriorated equipment will not be used.
- Wood planking shall be inspected to ensure that it is graded for scaffold use, is sound and in good condition, straight-grained, and free from saw cuts, splits, and holes.

16.7.2.4 Employees engaged in assembling scaffolds or working from a scaffold without a standard guardrail or incomplete deck shall wear approved fall protection devices and be tied off while working at elevations six feet or more above ground or floor levels. They will continue to use fall protection devices until work platforms with proper handrails and mid-rails are installed. (See Safety and Health Standard 16.20)

16.7.2.5 The following are general requirements that apply to scaffolding:

- Guardrails, mid-rails, and toe boards shall be installed on all open sides and ends of working platforms more than six feet above the working surface.
- Any components of a scaffold damaged or weakened shall be immediately tagged out of service and repaired or replaced.
- Platform planks shall be laid with their edges close together so the platforms will be tight with no spaces through which tools or fragments of material can fall (no more than 1" wide).
- The maximum span for 2" x 12" planks (scaffold grade or full thickness undressed lumber) shall be eight feet (medium-duty rating of 50# / square foot intended load). Where planking is lapped, all planking or platforms shall be overlapped a minimum of 12" and secured from movement.
- Scaffold planks shall extend over their end support at least 6" but not more than 12" and must be cleated or otherwise restrained by hooks or equivalent means.
- The legs or uprights of scaffolds shall be plumb and rigidly braced to prevent swaying.
- Footings shall be level, sound, rigid, and capable of supporting the loaded scaffold without settling or displacement. Base plates or screwjacks with base plates must be in firm contact with the footing and / or sills and the legs of the scaffolding. Leveling on uneven ground can be compensated for with screw jacks and base plates. Unstable objects such as blocks or loose bricks shall not be used.

16.7.2.6 Scaffolding must be secured at the nearest horizontal member when the height of the scaffold exceeds four (4) times the minimum base width and repeated vertically at locations of horizontal members every 20 feet. Ties should be installed as the erection progresses and removed only as scaffold is dismantled to that height.

References: OSHA 29 CFR 1910.28 OSHA 29 CFR 1926.451 ANSI standards A10.8 KUCC Safety and Health Standard 16.20 Fall Protection (Working at Heights)					
Signatures					
Original signed by: Frank Klobchar	8/5/04	Original signed by: Chris Crowl	8/10/04	Original signed by: Bill Champion	8/18/04
_____ Standards Committee Chairman	_____ Date	_____ Vice President Human Resources	_____ Date	_____ President, KUCC	_____ Date

- 16.7.2.7 When scaffold platforms are more than 2 feet above or below a point of access, a safe means must be provided to gain access to the working platform level. Means of access may be a securely fastened portable ladder, fixed ladder, ramp, runway or stairway. Structural members will not be used for means of access. Stair towers are required for scaffolds requiring an ascent greater than 18 feet.
- 16.7.2.9 Employees shall not work on scaffolds during storms or high winds. Employees shall not work on scaffolds that are covered with ice or snow. Ice and snow must be removed and the planking sanded to prevent slipping.
- Overhead protection shall be provided for employees in a scaffold exposed to overhead hazards and for persons that may pass under a scaffold.
 - Working heights must not be exceeded by planking the guardrail or by the use of boxes, ladders, or other means on scaffold platforms.
 - Tools, material, and debris shall not be allowed to accumulate in quantities to cause a hazard.
- 16.7.2.10 Scaffolds and scaffold components shall be inspected for visible defects by a competent person before each work shift, and after any occurrence, which could affect the scaffold's structural integrity. A scaffold Permit be completed prior to scaffold use (See Exhibit 16.7.1 Scaffold Permit).
- Upon completion of the job, the Scaffold Permit will be forwarded to the Safety Office and retained on file for a period of not less than six months.
- 16.7.2.11 The area in which scaffolds are being erected, used, or dismantled shall be roped off or otherwise barricaded for a sufficient distance to prevent passers-by from being struck by falling materials and to prevent unauthorized entry into the area. Where travel is permitted under a scaffold, overhead screens shall be required.

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SCAFFOLD PERMIT

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Permit will be posted at work site until work is complete or a new permit is issued. This permit must be reviewed every shift and reissued if a change in conditions, work scope or scaffold modification occurs. Expired permit must be returned to the Safety Department for filing.

Warning: Approved fall protection must be worn by personnel engaged in assembling scaffold while working at elevations of six feet or more or where the risk assessment highlights a danger of falling. Fall protection is required for all personnel working from a scaffold until all work platforms with proper handrails are installed.

Work Area / Location:		Date and Time Erected:		AM PM
Work Description:				
TRACK completed for this task (<i>Initials</i>):				
Yes	<input type="checkbox"/>	All components were visually examined for damage and to ensure components are from same manufacturer.		
Yes	<input type="checkbox"/>	Scaffold is erected in safe proximity from electrical power lines and overhead obstructions.		
Yes	<input type="checkbox"/>	Overhead protection is provided when necessary.		
Yes	<input type="checkbox"/>	Footings are level and capable of carrying maximum load without settling or displacement.		
Yes	<input type="checkbox"/>	Base plates and/or screw jacks are in firm contact with footing and frame.		
Yes	<input type="checkbox"/>	Safe access is provided and access is securely fastened to scaffold.		
Yes	<input type="checkbox"/>	Legs or uprights are plumb and cross-braced.		
Yes	<input type="checkbox"/>	All scaffold assembly pins are properly locked.		
Yes	<input type="checkbox"/>	Scaffold is braced and secured to structure if height extends four (4) times the minimum base width.		
Yes	<input type="checkbox"/>	All guardrails, midrails and toe boards are installed.		
Yes	<input type="checkbox"/>	Planking: <ul style="list-style-type: none"> • Planking is scaffold grade, in good condition, secured and seated with no openings. <u>Minimum dimension:</u> 2"x10" full thickness lumber, scaffold grade or equivalent. <u>Maximum span:</u> 8 feet. • Working platform is fully planked and at least two boards wide. • Planks extend over end supports at least 6" and not more than 12". • Planks are cleated or tied down. 		
Yes	<input type="checkbox"/>	Scaffold is erected to manufacturer's specifications. No modification to scaffold without manufacturer's written approval.		
Yes	<input type="checkbox"/>	Area barricaded during erection and use.		
I detect no defects or deficiencies in this scaffold that would affect the safety of its use. Consecutive inspections are to be signed on backside of this card.				
Erected By (<i>Signature</i>):			Date:	
Inspected By (<i>Signature</i>):			Date:	

