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Kennecott Utah Copper Corporation Safety and Health Standards		Standard No.: 16.23 Welding Repairs and Modifications

16.23.1 **INTRODUCTION**

16.23.1.1 The scope of this standard is to define the requirement for performing welding operations on certain components of machinery, equipment and structures. Detailed specifications for safe welding and cutting procedures are described in numerous publications, many of which are available within KUCC.

16.23.2 **REQUIREMENTS**

16.23.2.1 All welders and cutters must be task trained in the safe practices that apply to their work. However, many types of welding repairs may be completed only by a properly certified welder who has successfully completed specific welding tests as designed and evaluated by a certified testing laboratory. In addition, there are certain components of machinery that may not be repaired or modified at all due to certification and engineering requirements placed on them when manufactured.

16.23.2.2 Examples of components which **may not** be repaired or modified **under any circumstances** include such items as crane hooks, crane sheaves, scaffold tubing, wheel rims and forks on forklift trucks.

16.23.2.3 Repair or modification of the following items requires manufacturer's authorization, a certified welder, engineering approval, retesting and recertification: Crane booms, rollover protection on mobile equipment, work platforms (manlifts), lift devices, fall protection anchor points, pressure vessels, boiler tubing and natural gas piping.

- With regard to testing, approving and certifying, these functions must be carried out by a competent person or authority who has received appropriate training or who is suitably certified / qualified by regulatory schemes.

16.23.2.4 Components that may be repaired or modified by any qualified welder include such items as roof support members, integral parts of building support structures, walkways, handrails and stairs. These items may only be repaired or modified with the approval of a qualified engineer and the responsible superintendent unless the repairs are of a minor nature.

- All of the examples listed are items which are most frequently encountered but are not all inclusive. Any item which may directly affect personal safety must be evaluated for compliance with the intent of this standard.
- Any modification to a piece of mobile equipment must have the manufactures approval.

References:					
MSHA 30 CFR Subpart C - Fire Prevention and Control					
OSHA 29 CFR Subpart Q - Welding, Cutting and Brazing					
Signatures					
Original signed by:		Original signed by:		Original signed by:	
Frank Klobchar	03/21/05	Chris Crowl	03/27/05	Bill Champion	04/08/05
Standards Committee Chairman	Date	Vice President Human Resources	Date	President, KUCC	Date