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|  | Ladder Safety | LLCP-087 |

## Purpose

The purpose of this document is to put forth the regulations regarding Ladder Safety procedures and training. 29 CFR 1926.1053 contains specific information on these rules. All Company employees who might be expected to use a ladder during the course of work should be familiar with this document. This standard operating procedure covers all types of ladders, including step, extension, and fixed ladders. Ladder users must be able to recognize and avoid ladder hazards and be aware of safe practices in setting up, storing, moving and working from this equipment.

## Scope

All LLC Companies including, Blanchard Industrial, LLC, GIS Engineering, LLC, Grand Isle Shipyard, Inc., and GWIS, Mack Steel, NuWave, Sun Industries, Valvemax, Discovery Industries, Inc.; hereafter identified as "Company".

## Responsibility

- It is the responsibility of all Supervisors, Department Managers, Faculty, and Leadership to assure that all employees who may use a ladder read and understand this document.
- It is the responsibility of the Company Industrial Training Education Center to provide basic ladder training safety information to all employees.
- It is the responsibility of all employees to assure that all ladders being used are free from defects and all moving parts are working properly.
- It is the responsibility of the Company's Training department to maintain records of Ladder Safety training sessions when they occur.


## Ladder Load Categories

Ladders shall be capable of supporting the following loads without failure:
At least four times the maximum intended load, except that each extra-heavy-duty type 1 A metal or plastic ladder shall sustain at least 3.3 times the maximum intended load. The ability of a ladder to sustain the loads indicated in this paragraph shall be determined by applying or transmitting the requisite load to the ladder in a downward vertical direction. Ladders built and tested in conformance with the applicable provisions of appendix A of this subpart will be deemed to meet this requirement.

- Type IA - 300 pounds extra heavy duty
- Type I - 250 pounds, heavy duty
- Type II - 225 pounds, medium duty
- Type III - 200 pounds, light duty


## Policy

- All employees who use ladders shall have Ladder Safety Training.
- Ladder Safety Training will consist of recognition of possible hazards associated with ladder use, proper maintenance and safety precautions to be taken when using ladders.
- Ladders shall be used only for the purpose for which they were designed. Never use ladder in a horizontal position or as scaffolding, do not place ladders on top of boxes, barrels, crates, etc.

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- All employees who use ladders must inspect them for defects or possible hazards before the ladders are used.
- Ladders with loose parts or faulty rungs should be taken out of service immediately. Rungs must meet OSHA/ANSI standards.
- Ladder rungs, cleats, and steps shall be parallel, level, and uniformly spaced, when the ladder is in position for use.
- Ladders that are taken out of service should be tagged "Defective" or "Do Not Use" and removed from the work area.
- Whenever possible have someone within shouting distance while on a ladder.
- Plastic capped step ladders are prohibited for use when the ambient temperature is below -25 F or as per site specific (or client) specifications.


## Safe Ladder Setup

- All ladders must be placed on firm and level surfaces
- Do not set ladders on boxes, blocks or other objects that might move.
- Do not lean or reach outside of the side rail while standing on ladders.
- Secure ladders whenever a danger of slippage might occur.
- Do not use ladders in high wind or during inclement weather conditions.
- Never set up ladders in front of or around doors, unless the door is posted or locked.
- Do not sit on ladders.



## Climbing and Standing on Ladders Safely

- Always face a ladder when climbing up or down.
- Do not carry materials or tools when climbing a ladder. (Both hands shall be free to climb the ladder) Climb the ladder first then pull up the materials with a rope.
- Ladders should not be loaded beyond the maximum intended load for which they were built, nor beyond their manufacturer's rated capacity.
- Rungs and steps should be clear of grease, oil, wet paint, mud, snow, ice, or other slippery material before climbing.
- Use safety shoes or other rubber sole shoes when climbing a ladder.
- Do not climb onto a ladder from the side.
- Do not slide down a ladder.

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- Climb or stand on a ladder with your feet in the center of the rung.
- Do not stand on the top rung or step of a ladder.


## Proper Use and Care of Ladders

- Never use metal ladders near exposed electrical wires.
- Place warning signs or setup barriers around a ladder before use.
- Do not move a ladder while someone is on it.
- Never use a ladder when under the influence of alcohol or prescription medications.
- Do not leave tools or materials on top of ladders.
- Only one person should be on a ladder at a time unless designed and allowed by the manufacturer
- Do not use a ladder on a scaffold.
- Do not try to rock a ladder to move it.
- Store wooden ladders where they will not be exposed to the elements.
- Make sure ladders are properly secured when transported.
- Do not paint wooden ladders. Painting could hide potentially dangerous defects.
- Remove defective ladders from service.


## Step Ladder Safety

- Never use a stepladder over 20 feet in length.
- Always open a stepladder completely and make sure the spreader is locked before use.
- Do not stand higher than the second step from the top of a step ladder.
- Do not straddle a stepladder.
- A step ladder shall not be used as a straight ladder.
- Never use the backside of a stepladder.


## Fixed Ladder Safety

- Fixed ladders must be secured to the object they are attached to.
- Fixed ladders over 20 feet must have a safety cage surrounding the ladder.
- The safety cage should have $15^{\prime \prime}$ clearance to all points from the center.
- Defects in fixed ladders should be repaired as soon as possible.
- When a defect is not repairable the ladder must be taken out of service.


## Extension Ladder Safety

- The sections of an extension ladder should overlap enough to retain the strength of the ladder. (see table 1A)
- Never splice or tie two short ladders together. Limit extension ladders to 30 feet.
- When using a ladder for access to a landing, it must extend 3 rungs or 3 feet above the landing.
- The top of an extension ladder should rest against a flat, firm surface.
- Elevate and extend these extension ladders only from the ground.
- Extension ladders must be placed at a 4:1 ratio (see image 1B)

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- When practical, secure extension ladders at both the base and the top. (The top shall be secured at a minimum)


## Extension Ladder Setup

- Lay the ladder on the ground when it is collapsed.
- Have someone foot the ladder or make sure it is braced against something.
- Pick up the ladder and walk it to an upright position, making sure it will not be obstructed by trees or wires.
- Slide the bottom of the ladder outwards to the proper angle and set the feet correctly.
- Then extend the ladder by pulling the extension line.
- Make sure the rungs on the upper half of the ladder are properly secured by the locking mechanism.
- If possible, tie the ladder off or have someone steady the ladder as you climb it.
- The ladder must be tied off at the top and maintain the $4: 1$ ratio.
- Never fully extend an extension ladder.


## Table 1A

## Length of Ladder

Up to $36^{\prime}$
Over $36^{\prime}$ to $48^{\prime}$
Over $48^{\prime}$ to $60^{\prime}$

## Required Overlap

3 Feet
4 Feet
5 Feet

Image 1B
**Measure from the ground to where your ladder will contact the structure and divide it by 4 . This will let you know how far out the ladder must be to obtain the required 4:1 ratio.


