Loss Control Alert

Ladder and Scaffold Safety

Ladders and scaffolds seem to lure workers into a false sense of security. Ladders are commonly abused workplace and household items. Scaffolds, appearing more stable and providing a larger work platform than ladders, seem even easier and safer to use. Misuses of both of these items can result in painful workplace injuries.

Everest National Insurance Company's claim records reveal a recent rash of ladder and scaffold accidents among several of our trade contracting policyholders. Besides the obvious impact these accidents have on the cost of insurance, there are also many uninsured costs which can also significantly impact your business. When you consider the cost of replacing damaged equipment, the loss of a productive worker, lost production, possible damage to customer property, and the potential tarnished image that an accident may have in the eyes of your customer, it makes prefect sense to prevent these losses instead of continually trying to overcome their costly results.

The following are a few general Ladder and Scaffold Safety guidelines which you, as business owners or manager need to practice.

Proper selection:

Selecting and using the proper ladder or scaffold to fit each job will help to prevent worker injuries. Factors to consider in selection include height and strength requirements; composition of the ladder or scaffold (Never use metal equipment when

working near live electrical wires!); the number of workers that will be supported by a scaffold or ladder; and the type and weight of the materials that will be transferred or stationed onto the scaffold or ladder.

Inspection:

Inspect all ladders and scaffolds on a regular basis, before each use, and following any accident. Ladders & scaffolds must be inspected by a competent person, to assure they are structurally sound, properly constructed and stable, and can prevent materials and personnel falls. Ladders must be checked to make sure all parts are in sound condition that braces, bolts, and screws are tight and present, and that no slippery material is present on the steps or rungs. Wood ladders must not be painted or coated with any opaque covering that would hide flaws or damage. Ladder component must also be surfaced to prevent injury punctures or lacerations and to prevent snagging of clothing.

Any ladder with structural defects such as broken or missing rungs, split or broken rails, corroded components, or other defects must be immediately marked as defective, or tagged with a "Do Not Use" warning label and immediately taken out of service until repaired or destroyed. All repairs must restore the ladder to its original design criteria.

Proper use and storage

Ladders and scaffolds can only safely handle their designed loads. Design loads include the combined maximum weight which can be supported including personnel, materials & equipment, and the ladder or scaffold itself. Ladders are rated I-A (holds 300 lbs.), I (holds 250 lbs.), II (holds 225 lbs.), and III (holds 200 lbs.). Class III ladders are intended for household use and should not be used on the job.

Purchased scaffolds have similar ratings and it is suggested that the higher strength scaffolds be used by our policyholders. Scaffolds must be constructed with stress grade lumber or strong metal and designed to support four times its intended load. Wire rope, supporting suspended scaffolds, must be able to support six times the intended load.

Ladders are not designed to be platforms, scaffolds, skids, or braces. Job made ladders must be able to support four time the intended load. They must have parallel side rails and rungs, steps, or cleats which are uniformly spaced.

Ladders and scaffolds should be stored in areas which do not expose them to potential damage from material handling traffic or weather conditions that may warp or split wood components.

Teaching and Enforcing Safe Work Practices

You are responsible for the safe and proper use of your equipment by your employees. You must train your workers to use ladders and scaffolds safely and periodically re-train them. You must immediately re-inforce the proper and safe use of ladder and scaffolds whenever unsafe work practices are observed. If you do not set the example, nobody else will, resulting in unsafe work practices and costly accidents. Teaching tips are included with this Alert to help you address the more critical areas.

Protective equipment

Workers using ladders and scaffolds, or working near them, need to wear proper equipment including sturdy shoes with non-skid soles, and hard hats, whenever a hazard of falling materials exists.

Legal Compliance

OSHA has specific and detailed regulations for ladder and scaffolds. You should know these regulations and abide by them. This Alert does not address all the regulatory requirements. The OSHA regulations concerning ladders and scaffolds can be obtained by accessing OSHA's web site at http://www.osha.gov.

Some of the key regulatory requirements are listed in the attached OSHA Checklist.

Summary

The number one hazard from ladder and scaffold misuse is falls. These types of accidents are often serious, painful, costly, and easily preventable. It is up to you to make sure that all your workers are trained in proper use of this equipment and that you continually re-inforce its safe use.

Remember, Everest National Insurance Company offers loss control services to help you in your loss prevention efforts. If you would like more information about these services, visit our web site at www.everestnational.com.

Ladders and Scaffolds Training Tips:

Ladders

General Review Items

Use ladders only for the purpose for which they were designed.

Do not use chairs, boxes, tables or other types of platforms as ladders or working platforms.

Select and use the right equipment for the job.

Keep ladders free of oil, grease or other slipping hazards.

Never paint or coat ladders with any opaque covering that would hide flaws or damage.

Place identification or warning labels only on one face of a side rail.

When ascending or descending, face the ladder and always use both hands.

Avoid leaning to the side, keep your navel between the side rails.

Wear shoes with clean, non-skid soles.

Use at least one hand to grasp the ladder while moving up or down.

Do not work near energized electrical lines unless your are trained and qualified and authorized by your supervisor. Maintain at least ten feet distance from all energized lines and never use a metal ladder.

Do not carry any object or load while ascending or descending. Doing so could result in a loss of balance and fall. Transfer tools and equipment by rope or mechanical means.

Avoid placing ladders against windows, sashes, or other unstable, low supporting strength surfaces.

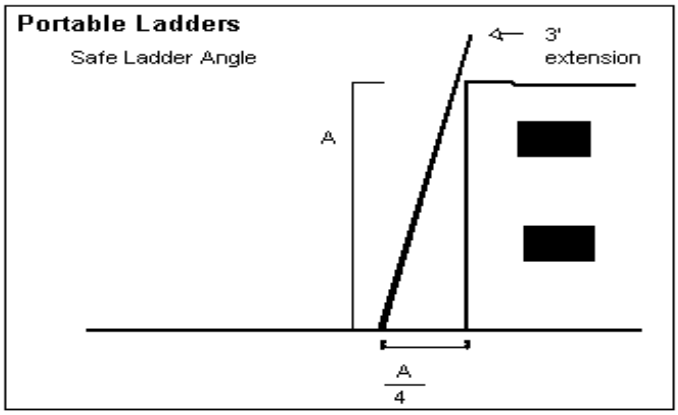
Only one person should be on a ladder at one time.

Stay off all ladders if you are prone to fainting or dizziness.

Do not use ladders as platforms, scaffolds, skids, or braces.
Do not use ladders greater than 30 feet in length.

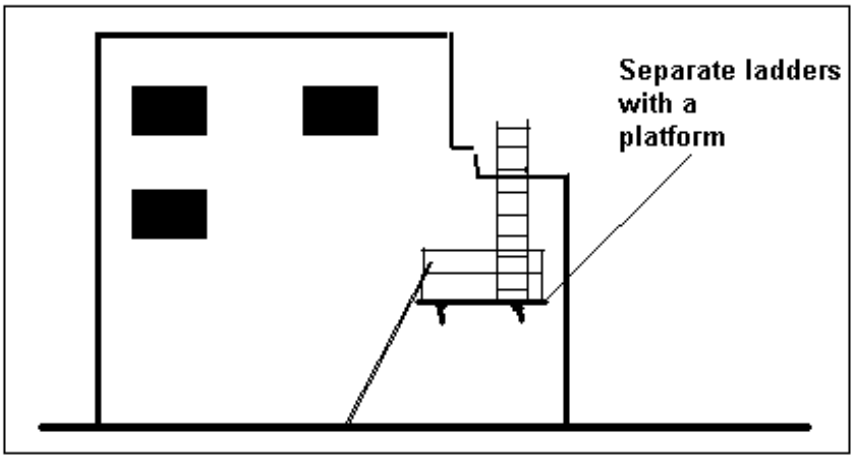
When finished with the ladder, and at the end of the day, remove it and carefully store it in a designated area. See your supervisor if you are not sure where to store the ladder.

Angle the ladder so that one-fourth of its working length equals the distance between the vertical support and the ladder feet. When using wood job-made ladders with spliced side rails, this distance should be one-eight of the working length.



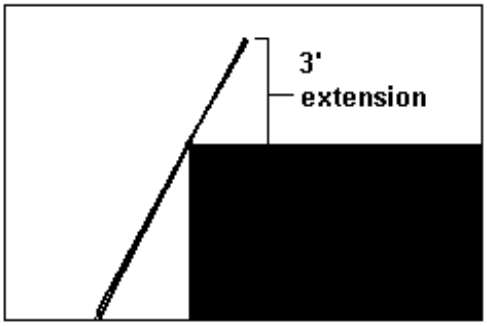
Do not tie or fasten together ladders to create longer sections unless they are specifically designed for such use. Before attempting this, always check with management.

Install a platform between each ladder and offset the ladders when more than one is needed to reach an elevated work area.



Do not use broken or damaged ladders and do not attempt to repair them without management approval. Immediately report all broken or damaged equipment to your supervisor.

Make sure the side rails are at least 3 feet above the landing surface when a portable ladder is used to access an elevated work area. Make sure both rails are equally supported.



Do not overload a ladder beyond the manufacturer's rated capacity.

To prevent accidental movement, make sure the ladder has slip resistant feet, especially when using it on slippery surfaces such as gravel, loose dirt, or surfaces coated with water or oil. Secure the ladder in place with a rope & stake or other effective method, or get a fellow employee to hold it in place, as an added precaution, especially when the surface is not level.

Avoid placing ladders in passageways, doorways, or driveways. In these instances, a serious hazard is created as the ladder may be displaced by workplace activities or traffic. When you must place a ladder in these areas, secure it in place, barricade the area keep traffic or activities away, and post a warning sign or fellow employee to help re-direct traffic.

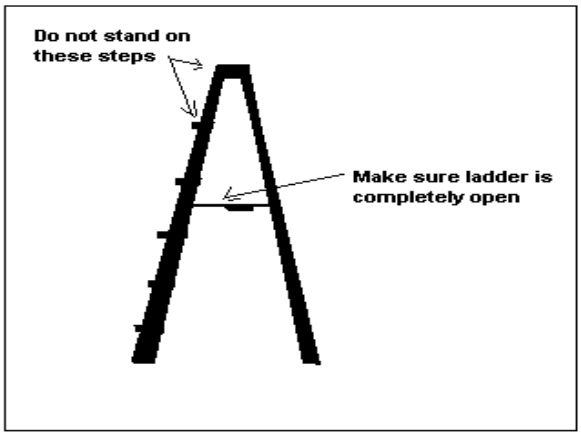
Stepladders

Never stand on the top or top step of a stepladder.

Never climb the cross-bracing on the rear section of a stepladder unless the ladder is designed for and provided with steps for climbing.

Never use a stepladder greater than 20' in length. These units can easily become unstable, especially when standing or working from the upper third of the ladder.

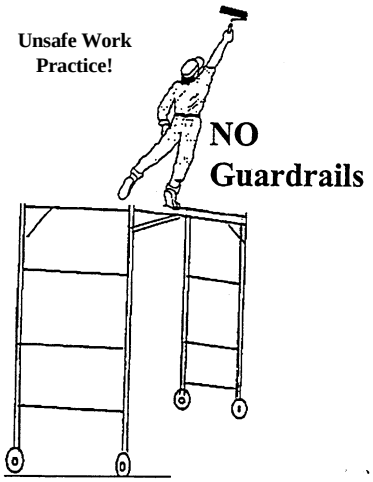
Never prop a stepladder and use it like an extension ladder. The metal spreader or locking device must be in the open position when using a stepladder. Make sure the device is in good conditioned and locked in place before it is used.



Scaffolds

Loss Control is a daily responsibility of your management. This publication is not considered a substitute for your own loss control program. The information provided in this Alert should not be considered as all-encompassing, or suitable for all situations, conditions, or environments. Each organization is responsible for implementing their own safety/injury/illness prevention program and should consult with their legal, medical, or other advisors as to the suitability of using the information gained in this Alert.

Scaffolds, greater than 10’ in height, should have guard rails and toe boards in place to prevent workers, tools and materials from falling. When conditions warrant, such as a high traffic area beneath the scaffolds, safety nets, designed to contain materials, tools and equipment, should be installed.



Report defective or missing railings, toe boards, safety nets, or other fall restraint systems immediately. Never use a scaffold which appears to be defective, unstable, or missing guardrails. Call your supervisor immediately.

Non-mobile scaffolds should be anchored in place to prevent movement.

Keep the amount of tools, equipment and materials to a minimum on scaffolds to reduce slip, trip and fall accidents.

Scaffolds can become top heavy from the materials, personnel, tools and equipment they support and easily tipped. Make sure the scaffold rests on stable. level supports and surfaces. When using a mobile scaffold, make sure the wheels are locked before using it.

Never move mobile scaffolds while they are in use or by pulling yourself along while standing on the top plank. You can easily tip the scaffold causing serious injuries.

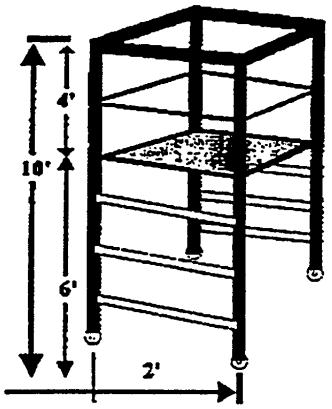
On mobile scaffolds, the safe working height must not exceed four times the base dimensions unless increased stability is provided, such as additional bracing, outrigging, or guys. This will help to prevent tip-over.

SCAFFOLD UPSET FORMULA

(B)(F)=(W)(A)
where:
(B) = height from floor to ceiling
(F) = force required to upset scaffold
(W) = weight of scaffold/worker
(A) = 1/2 width of scaffold

EXAMPLE

(B) = 14, (F) = Y,
(W) = 374 lbs.
{199 lb man + 175 lb scaffold}
(A) = 1'
Force to upset: 26.7 lbs
14(Y) = 374x1
(Y) = 374x1
14
(X) = 26.7 lbs.



On mobile scaffolds the work height shall not exceed four times the minimum base dimension unless outriggers, guys or braces are added to provide stability.

Slippery scaffold platforms should be immediately repaired or replaced.

If the supporting members, footing, braces, and platforms appear to be damaged or defective, do not use the scaffold. Contact your supervisor immediately.

Do not use a scaffold unless you have received training and have been authorized by your supervisor.

Do not work near energized electrical lines unless your are trained and qualified and authorized by your supervisor. Maintain at least ten feet distance from all energized lines.

Always access and leave scaffolds in a safe manner, using ladders, stairs or ramps. Never climb the bracing and supports to access or descend from scaffolds.

Ladder and Scaffold Training Meeting

Company: _____ **Date:** _____

Meeting conducted by (Name): _____

Meeting Attended By: (*Please sign your name below*)

1.	**16.**
2.	**17.**
3.	**18.**
4.	**19.**
5.	**20.**
6.	**21.**
7.	**22.**
8.	**23.**
9.	**24.**
10.	**25.**
11.	**26.**
12.	**27.**
13.	**28.**
14.	**29.**
15.	**30.**

OSHA Checklist

The following are key OSHA ladder and scaffold requirements. This is not a complete list of all OSHA ladder and scaffold requirements. To obtain all the OSHA regulations please refer to the applicable OSHA standards.

Ladders:

- ❑ Are ladders positioned to prevent slipping, or lashed or held in position?
- ❑ Do you have a policy prohibiting the use of ladders in the horizontal position as platforms or scaffolds?
- ❑ When ladders are used in front of doors opening toward them, are they protected by blocking, locking or guarding the doors?
- ❑ Do you prohibit workers from using the top step of a stepladder as a step?
- ❑ Do ladders, used to gain access to platforms or roof tops extend 3 feet above the top support?
- ❑ Are all portable ladders equipped with non-slip footing when a hazard of slipping exists?
- ❑ Are ladders maintained in good condition?
  - Bearings, locks & wheels lubricated
  - Worn or frayed ropes replaced
  - Non-slip feet in good condition
  - Rungs free of grease and oil
- ❑ Are ladders inspected frequently for defects and taken out of service or destroyed if defects are found?

Scaffolds:

- ❑ Are footings sound and capable of carrying the maximum intended loads?
- ❑ Is the use of unstable objects, such as barrels, boxes, loose brick, or concrete blocks prohibited as scaffold footings?
- ❑ Are scaffolds capable of supporting at least 4 times their maximum intended loads?
- ❑ Are open sides of all scaffolds protected by guard rails and mid rails?
- ❑ Do platforms and planking overlap at least 12 inches or secured from movement? Do they extend at least 6 inched past end supports?
- ❑ Does a screen or toe board exist to prevent materials from falling off the scaffold?
- ❑ Are all tube and coupled scaffolds erected and inspected by competent and experienced personnel?
- ❑ Do you prohibit the movement of scaffolds while in use?

- ❑ Are ladder inspections documented?
- ❑ Are cages or other safety devices provided to fixed ladders greater than 20 feet long?
- ❑ Do you prohibit intermixing of scaffold components manufactured by different manufacturers?
- ❑ Are workers prohibited from working on scaffolds during high winds?

Comments:

Inspection Completed By : _____

Date of Inspection : _____

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