

FALL PROTECTION PLAN FOR CONSTRUCTION

Refer to Cal/OSHA , Title 8, Subchapter 4, Article 24 Sections 1669 - 1672 for the complete Cal/OSHA standards governing fall protection.

INTRODUCTION

The standards for regulating fall protection systems and procedures are intended to prevent employees from falling off, onto or through working levels and to protect employees from falling objects. Fall protection requirements under the Cal/OSHA Construction regulations require considerable planning and preparation. The regulations:

- ® Are designed to provide a safe working environment
- ® Govern use of fall protection procedures and equipment

SCOPE

Toro Enterprises, Inc. is dedicated to the protection of its employees from on-the-job injuries. All employees of Toro Enterprises, Inc. have the responsibility to work safely on the job. The purpose of this plan is to:

- Supplement our standard safety policy by providing safety standards specifically designed to cover fall protection
- ® Ensure that each employee is trained and made aware of the safety provisions which are to be implemented by this plan

This program applies to all employees who might be exposed to fall hazards, except when designated employees are inspecting, investigating, or assessing workplace conditions before the actual start of construction work or after all construction work has been completed.

All fall protection systems selected for each application will be installed before an employee is allowed to go to work in an area that necessitates the protection. Frank Borjon is corporate Safety Officer and is responsible for its implementation. Copies of the written program may be obtained from the main office.

The following fall hazards are not covered under the scope of this program:

- Stairways, portable ladders and fixed ladders less than 20 feet in height
- i. Construction of electric transmission and distribution lines and equipment
- a Steel erection
- Cranes and derricks
- i. Scaffolding (unless guard rails have not been installed)

Fall protection requirements regarding these situations are found in other parts of the Cal/OSHA Construction and General Industry standards. In addition, this program does not cover retrieval equipment used for confined spaces.

RESPONSIBILITIES

MANAGEMENT

- ⊙ Endorsement of the written plan
- ⊙ **Delegation** of sufficient authority to the respective department heads needed to implement the plan
- ⊙ Appropriate the necessary resources required to implement the plan

FOREMAN

- ⊙ Assure that employees covered by the plan receive the necessary training
- ⊙ Assure that all necessary fall protection equipment is provided and maintained in a good state of repair
- ⊙ Enforce the Fall Protection Plan
- ⊙ Identify the activities and locations where fall hazards exist

HEALTH AND SAFETY

- 111 Develop a written control plan and perform a periodic review to determine if revisions are necessary
- ⊙ Provide guidance and technical assistance to departments regarding the Fall Protection Plan
- 111 Serve as a liaison with local Cal/OSHA Office
- ⊙ Promote compliance with the Cal/OSHA Standard
- ⊙ Provide a means by which employees can direct suggestions, complaints, and concerns regarding the campus Fall Protection Plan
- Maintain a data base of all reported injuries related to falls from elevated surfaces involving staff, and sub-contractors. Investigate these injuries where necessary

EMPLOYEE

- ⊙ Participate willingly in all training programs offered by Toro Enterprises, Inc. about the Fall Protection Program
- ⊙ Abide by all rules and apply to the fullest extent possible the safety and health precautions specified by Toro Enterprises, inc.
- Report any problems that are observed which could compromise health and safety to Toro Enterprises, Inc. through his or her immediate foreman
- Maintain his or her fall protection equipment in a safe and sanitary condition

4. Ensure that no other individuals are exposed to fall hazards based on the operations being conducted

FAILURE TO FOLLOW THE FALL PROTECTION PLAN

All employees or sub-contractors who are exposed to a fall hazard as defined by this plan shall follow the program and any safety training requiring fall protection. If there is a question regarding a specific fall protection situation, PLEASE consult your immediate foreman. Failure to follow the basic guidelines of the Fall Protection Plan may result in disciplinary action. Each jobsite that has employees covered by this program shall take the necessary disciplinary action for employees who knowingly violate the plan.

FALL PROTECTION SELECTION

Prior to the selection of any fall protection method the strength of the walking/working surface shall be determined by a competent person or foreman. The walking/working surface shall be capable of supporting the expected loads, including a safety factor. Cal/OSHA generally encourages the employer to select engineering controls first when attempting to control a hazard.

GUARDRAIL CONSTRUCTION DETAILS

Important points to consider include a toeboard, height of the rails, midrails or screens, and strength requirements. When an individual's center of gravity is located outside of the protection offered by the guardrails alternative fall protection is necessary. Examples of this situation include individuals leaning over, through or under guardrails to perform work, or employees on portable ladders working near an edge. Guardrails can be used for many fall protection applications.

SAFETY NETS

It is anticipated that the use of safety nets for fall protection will be limited at Toro job sites.

WARNING LINE SYSTEM/ CONTROLLED ACCESS ZONES

Warning lines may be used on low-slope roofs in combination with other controls such as safety monitors, guardrails and personal fall protection equipment or nets. Warning lines shall be made of rope, wire or chains and flagged every six feet with highly visible material. The line shall be supported by stanchions and the line shall be between 39 and 45 inches above the walking/working surface. The warning line shall have a minimum breaking strength of 200 lbs.

Controlled access zones may be used to mark areas where employees who are properly trained may enter without the use of personal fall protection. Toro employees have not been trained to work within controlled access areas without personal fall protection.

If a general contractor, owner or other trade plans to use controlled access, Toro employees must stay within the protected area while working and must never cross the warning lines unless they have set up their personal fall protection equipment

Crossing a warning line without the use of personal fall protection is grounds for immediate suspension or possible termination.

COVERS

Covers shall be capable of withstanding at least 400lbs or twice the expected maximum load. The load could be any of the following based on the project axle load, weight of equipment, weight of a person. Consideration should be given to concentrated and impact loads. The covers shall be secured to prevent movement and either color coded or labeled "OPENING - DO NOT REMOVE."

PERSONAL FALL PROTECTION DEVICES

PERSONAL FALL ARRESTING EQUIPMENT

Personal fall arresting equipment should be purchased from a single manufacturer. The equipment is tested as a system and substitution of equipment from another manufacturer of personal fall protection equipment could result in a component or system failure. It is important to realize that components from a single manufacturer may not be compatible for all types of fall protection equipment. Personal fall arresting equipment shall be used only for this purpose.

Free-fall distances shall be kept to a minimum. In no case shall the free-fall distance exceed six feet. Free falls in excess of this distance can result in system failure and/or injury. In most situations the anchor point should be located near or above shoulder level. In selecting fall protection equipment consideration should be given to the possibility of injuries associated with "swinging" after the fall, retrieval and the location of where the individual will be after the fall.

Consideration should be given to conditions that could affect the performance of the equipment selected. The following is a short list of conditions that could adversely affect the equipment being used: temperature extremes, use of corrosive substances (solids, liquids or gases), welding/torch cutting, abrasive blasting, high moisture, grease/oil, and chemicals. Wire rope should never be used.

Safety belts are not acceptable for personal fall arresting equipment.

Shock absorbing lanyards must be used with fall arrest systems. Lanyards, lifelines, full-body harnesses shall be protected against abrasion or cutting. Special beam wraps are available for anchor points that would cause a lanyard to abrade or be cut

Non-locking snap hooks are prohibited. Self-closing, self-locking keepers shall be used.

ANCHOR POINTS

Anchor points must be capable of supporting 5000 lbs. per attached employee. The adequacy of an anchor point must be determined by a competent individual. Where there is doubt about the strength of an anchor point an engineer must be consulted.

Permanently installed anchor points should be provided for fall hazards that are routinely encountered. Anchor points used for fall protection and exposed to corrosive conditions (acids, bases, moisture) should be corrosion-resistant.

POSITIONING DEVICES

Positioning devices, which limits a free fall to 2 feet may be used. Anchorage points must be capable of supporting two times the intended load or 3,000 pounds, whichever is greater.

RESTRAINT DEVICES

Restraint devices keep the worker from getting near the fall exposure. Restraint protection shall be rigged to allow the movement of employees only as far as the sides of the working level or working area. Anchorage points used for fall restraint shall be capable of supporting 4 times the intended load.

TRAINING PROGRAM

Under no circumstances shall employees work in areas where they might be exposed to fall hazards, do work requiring fall protection devices, or use fall protection devices until they have successfully completed Toro Enterprises, Inc. fall protection training program.

The training program includes classroom instruction and operational training on recognition and avoidance of unsafe conditions and the regulations applicable to their work environment for each specific fall hazard the employee may encounter. The training program will cover the following areas:

The nature of fall hazards in the work area.

- e Selection and use of personal fall arrest systems, including application limits, proper anchoring and tie-off techniques, estimation of free fall distance (including

determination of deceleration distance and total fall distance to prevent striking a lower level), methods of use, and inspection and storage of the system

- ⑥ The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used
- ⑥ The use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, controlled access zones, and other protection to be used
- ⑥ The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection
- ⑥ The role of employees in fall protection plans
- ⑥ The standards contained in Article 24 of the construction regulations
- ⑥ Training on the above components will occur both in the classroom and on jobsites, as appropriate. Classroom training will cover written policy/procedures on fall protection and include a training video on the subject. Jobsite instruction will include demonstration of and practice in wearing fall protection equipment and any instruction necessary for a specific job.

The foremen have overall responsibility for the safety of employees and will verify compliance with this program.

The foreman have the responsibility of determining when an employee who has already been trained, does not have the understanding and skill required by the training and to keep the employee from using fall protection equipment until they can be retrained.

A written certificate of training is required and includes:

- ⑥ The name or other identity of the employee trained
- ⑥ The date(s) of training
- ⑥ The signature of the competent person who conducted the training or the signature of the employer

Retraining is required when an employee cannot demonstrate the ability to recognize the hazards of falling and the procedures to be followed to minimize fall hazards.

ENFORCEMENT

Constant awareness of and respect for fall hazards, and compliance with all safety rules are considered conditions of employment. The jobsite foreman, as well as individuals in the Safety and Personnel Department, reserve the right to issue disciplinary warnings to employees, up to and including termination, for failure to follow the guidelines of this program.

INCIDENT INVESTIGATION

All accidents that result in injury to workers, regardless of their nature, are investigated and reported. It is an integral part of any safety program that documentation take place as soon as possible so that the cause and means of prevention can be identified to prevent a reoccurrence.

In the event that an employee falls or there is some other related, serious incident (e.g., a near miss) occurs, this plan will be reviewed to determine if additional practices, procedures, or training need to be implemented to prevent similar types of falls or incidents from occurring.

CHANGES TO PLAN

Any changes to the plan will be approved by the Corporate Safety Director. This plan is reviewed by a qualified person to determine if additional practices, procedures or training needs to be implemented to improve or provide additional fall protection. Workers will be notified and trained, if necessary, in new procedures. A copy of this plan and all approved changes is maintained at the main office and jobsites.

EQUIPMENT INSPECTION

PERSONAL FALL ARRESTING EQUIPMENT (BODY HARNESS, LANYARD, CARBINGER) THAT HAS BEEN SUBJECTED TO A SIGNIFICANT FALL SHALL BE DISCARDED.

Equipment shall be maintained in accordance with the manufacturer's guidelines and inspected prior to each use.

The following should be checked:

D-rings: Cracks, distortion, corrosion, pitting or excessive wear.

Buckles: Distortion, sharp edges or cracks.

Body harnesses: Burns, damaged due to chemicals, cuts, abrasion to the material. Broken stitches. One of the best ways to check the material is to hold sections of the material between the hands and bend the material into a U-shape to look for damage.

Keepers and snap locks: Make sure they operate correctly. Do not rely on the sound of the latches, they must be connected.

Retractable lines: They should operate smoothly. The rope or cable should not be damaged. A quick pull of the line should cause the line to lock. The retractable lifeline assemblies shall be returned to the factory for recertification as specified by the manufacturer. In most cases, the manufacturer specifies an annual inspection. Check the date on the unit for the last certification.

Lanyard: (rope, webbed or cable) - Look for cuts, frayed parts, damaged fibers, and the condition of connections. There should be no knots in the line. A knot can result in a substantial reduction in strength.

Shock Absorber: Check for ripped stitches, signs of impact loading and connections.

NOTE: Equipment should be replaced every 5 years. Check the date stamp before use.

PROVISIONS FOR RESCUE

Provisions shall be made for the rescue of employees who have fallen into a net or are suspended by their personal fall arresting equipment. Such provisions shall take the form of ladders, lifts, ropes, combined fall arresting/retrieval body harnesses, etc. If the rescue is likely to endanger the individual who has fallen, or the rescuers, call 911 to initiate the rescue process.