

SAFETY SYSTEMS HAWAII, INC.

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Safety Awareness Sheet

Bringing the 'Ohana to the Jobsite

By V. Hatanaka, Safety Systems Hawai'i, Safety News Staff Writer



If I had a dollar for each fall protection article I've read, I'd be retired in Vegas now, pretending to be a high roller. Bet you'd be at the table next to me.

Seems like every issue of every safety magazine has a fall protection article. Every safety officer has a couple of fall safety videos stashed in his filing cabinet. Your boss sends you to sit in uku fall protection classes. Are you tired of hearing about how you must tie off over and over again? Well, listen again. Sure, it's your life. But it's also your family that is affected if you are injured or killed in a fall.

Last summer, Hawai'i launched a statewide media campaign to motivate employees to use fall harnesses and to tie off on the job. The **'Tie Off...It's Your Life...and Theirs'** campaign was launched by a press conference in August of 2005, followed by 6 months of television and radio spots and an informational training video.



You've probably seen the TV ads. Darling little girl says *"Daddy, please remember to tie off at work!"* (music swells, get the hankies.) Using your 'ohana? Is that fair?

If you choose to disregard safety rules, you risk not only your life. Your family suffers during your recovery. Their heartache lasts even longer if recovery is not possible, or if you die. So these ads tell your spouse, kids, brothers, sisters, and parents to remind you to tie off on the job. Yeah, that's fair.

It was the unions who first demanded more protection for their members. It took quite a while to convince most industries that spending money on safety training and equipment not only

protected employees, but could save employers money in the long run. Foremen needed proof that safety precautions on a jobsite actually saved time. But the bottom line is lower medical and workers' comp costs, reduced OSHA fines, fewer injured employees, and increased productivity due to keeping work teams together for the duration of projects. Finally armed with the proof, big business got on board.

So, is this great, or what? This is a subject where everyone in Hawai'i agrees. The media campaign was sponsored by local contractors, and supported by Governor Lingle, the Dept of Labor/HIOSH, and the construction unions, as well as workers themselves. Well, most workers.

OLD HABITS DIE HARD...

So, contractors improved working conditions over the years, and the correct fall protection equipment is now provided on most commercial jobsites.



Most workers now wear their body harnesses, especially since refusal could mean being sent home or other disciplinary action. So far, so good...but a **harness that is not attached to a lanyard and anchor is just a funny looking fashion accessory.**

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Most injuries occur when a worker decides not to tie off. Do any of these excuses (right before the fall) for not tying off sound familiar?

"My lanyard didn't reach to that part of the roof, and that is where the tiles were stacked".

"I just went back up to grab my toolbox. I wasn't going to be there long."

"My job was just to inspect the weld, and come right back down."

"This harness doesn't fit right...it's not comfortable...I can't move easily..."



"There was no place to tie off...honto!"

"I go up that roof to adjust the security video every couple of months for years with no problem."

"I have no time to keep attaching and re-attaching clips when I am behind schedule!"

"Heck, it was only 7 feet up...I didn't want the guys teasing me about a fear of heights".

"I've been doing this for 27 years. No college-kid safety officer who never held a hammer is going to tell me how to do my job."

"Eh! When dey wen cut dat puka in da floor?"

TAKE YOUR PICK

There are two ways to prevent fall injuries and deaths on any jobsite with working surface over 6' in height:

1. **Personal fall restraint and arrest systems** which include harnesses, lanyards, retractables, anchors and connectors.
2. **Passive fall protection systems** such as nets, as guardrails, roof hatches, or visual warning barriers 15' from the edge, along with a designated safety monitor. (29 CFR 1910.23 & 1926.502).

Passive fall protection systems are developed and implemented on some pre-cast concrete erection work and residential construction jobs, as a site-



Miller's Revolution Harness is the most technically advanced Fall Restraint Harness on the market today.

specific fall protection **plan only if they can demonstrate the infeasibility of conventional fall restraint/arrest methods.**

The problem with passive systems is they rely on workers not circumventing barriers, or not disregarding warning ropes if they pose an inconvenience. It also ties up a person to act as a monitor who can not do other work or leave the jobsite while any workers are present. While passive systems may follow the letter of the law, OSHA may still declared them insufficient if there is an incident. So, it's usually best to go with fall restraint methods.



Downtown Honolulu, still growing, sees major construction every year.

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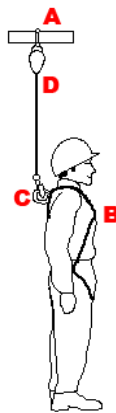
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MAKE A PLAN

There were 173 fall standards violations cited by HIOSH '03, making it the most cited standard in Hawai'i. And those numbers are likely to increase, as HIOSH turns more attention to fall prevention on smaller jobsites. The most common violation is for workers failing to tie off. So it's time to review the...

A - B - C - D - E'S OF FALL ARREST SYSTEMS

- A. **Anchorage** - a secure point of attachment for lanyards, as close to directly overhead as possible, rated to support 5000 lbs. It does not include: ladders, scaffolding, plumbing, vents, fans, guardrails, rungs, light fixtures, conduit, ductwork, pipe vents, wiring, roof-stacks, c-clamps, or another lanyard.
- B. **Body Support** - body harness with a back D-ring that is centered between the shoulder blades. Fit should be snug, including across the chest.



- C. **Connectors** - Carabineers and snaps that attach the lanyard ends to the harness and the anchorage point.
- D. **Decelerator** - A device which eases force and slows rate of descent in the event of a fall, such as rope grabs, rip-stitch lanyards, retractables, and lifelines.
- E. **Effective Rescue** - Getting worker out of a hazardous situation if a fall occurs. This is the most overlooked component of any fall protection plan.

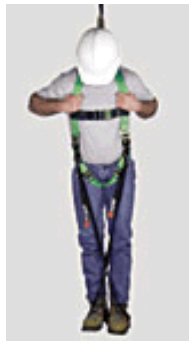
Rescue Plans - what is required?

After a fall, the greatest risk to the worker is Suspension Trauma. When hanging in a harness, it takes only 17 minutes before circulation starts to get cut off by the harness straps, causing blood to 'pool' in the veins of the legs, and restricting blood to the brain and other major organs that may initially result in unconsciousness. If not rescued promptly, serious injury or death may occur.



Minimizing the time between a fall and medical attention of the worker is vitally important. A **Rescue Plan** and sufficient equipment must be in place prior to starting any job.

- Rescue is not the job of the fire department or ambulance service - they tend to a victim after the retrieval.
- Time is of the essence - rescue must take place in a timely manner [Z359.1], usually within 15 minutes of a fall. (Additional time may be gained if the worker is already equipped with **trauma safety foot straps** that take harness pressure away from the groin and enhance blood circulation, and worker is uninjured enough to deploy them.)



- On-site control descent devices, rescue harnesses and retractable winches, or remote positioning devices and/or foot straps are a must for all high rise construction projects with fall hazards. And the training in how to deploy them.
- A Notification System to contact the fire department or ambulance: One employee must be designated to know emergency phone numbers, know who and where the first aid certified employees are, as well as having a telephone or other means of calling for help and reporting incidents.

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- At least one designated worker on the job site must be certified in first-aid and CPR to help an injured worker until medical help arrives.
- There must be a competent person on site to judge fall risks, confirm that appropriate escape equipment is on site or quickly accessible, and know how to operate it to rescue a conscious or unconscious worker.



- Even light commercial and residential jobs must have a plan for rescuing a suspended worker.
- Hawai'i law requires employers to provide either personal fall arrest systems or passive fall protection. Fines will vary from \$1500 to \$75,000, depending on seriousness of the offense.

While the rules call for more safety training, equipment, oversight, and rescue training for high-rise jobs, even light commercial and residential jobs must have a plan for rescuing a suspended worker. The same is true for **non-construction jobs** such as **maintenance for security cameras, installing antennas and lights, drain cleaning** and hoisting of tools and materials.

AND THIS INCLUDES HOMEOWNERS

Many falls occur on buildings under 30 feet because for many years such construction sites were not heavily regulated, and it was a time of lax safety.

This current emphasis by HIOSH inspectors will also include **homeowners who act as their own contractors**, and hire sub-contractors. A property owner is just as responsible for the safety of the contractor as a big business.



Protect yourself by making sure the companies you hire are licensed and bonded, and have a fall protection system and rescue plan in place before you sign a contract. If you hire a cheap "fly-by-night" or transient company without these safeguards, you run the risk that an injured worker will go after the "deepest pockets" for compensation. That might mean your homeowners' insurance or even your home. Don't take the risk. Ask to see their license, and verify it online at <http://www.ehawaii.gov/org/serv/pvl> or

<http://pahoehoe.ehawaii.gov/pvt/app> or call the Contractor's License Reference Site at 587-3295.

LEARN MORE

To download the DLIR fall protection video for tool box safety training, or to order a DVD, log on to the Hawai'i Department of Labor & Industrial Relations at: http://hawaii.gov/labor/hiosh/fall_video.shtml.

LEARN RESCUE & ESCAPE TECHNIQUES

Safety Systems Hawai'i will be hosting a hands-on **Fall Rescue Techniques & Equipment** class to teach safety officers, competent persons and workers how to set up and use high platform rescue equipment in February, 2006. This class will include suggestions for creating a written Fall Rescue Plan, demonstrations of various products and material to remember the key points of Fall Rescue. Fall Protection Awareness training certificate is a prerequisite. Due to the hands-on nature of the class, registration is limited. Contact Clifford Higa at 808-847-4017 for details, or click [here for the Safety Systems Hawai'i Seminar Page](#).