The University of Washington

OSHA

Susan Harwood Training and Educational Material Development Grant FY 2011

Developing Fall Protection Training Materials for Non-English Speaking and Illiterate Construction Workers

Case 1
02/2013

English

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A. Long description
(Excerpt[1] from FACE website (Case 9816) with partial modifications in the scenario)

On July 18, 1998, a 25-year-old *male roofer helper (the victim) died after falling 16.5 feet from a roof to a concrete basement way while trying to stop a bundle of shingles from sliding off a roof edge.*

The company owner had decided to replace the shingles on the roof of his residence and his adjacent garage. He and his eldest son, the company co-owner, had instructed his youngest son, 25 years of age*, to ask two of his friends to help him remove the old fiberglass shingles from both structures. A* 25-year-old *(the victim) and a 16- year-old agreed to help with the job.*

On the first day of the job, all five workers carried bundles of new shingles to the peak of the residence's 5.5:12 (5.5 inches of rise for every 12 inches of width) pitched roof. The shingles were stacked 3 or 4 bundles high along the roof's peak. The 25- *and 16-year-old workers then took shovels up the ladder to the residence's roof while the father and two sons climbed a ladder to the garage roof to determine what materials would be needed to complete the garage roof.*

As the two men *began removing the shingles the victim contacted a stack of shingles with part of his body, or the shovel, and a bundle began to slide down the back side of the roof. The victim began to chase the bundle in an attempt to retrieve it. None of the other workers saw the victim fall off the roof, but he apparently lost his balance and fell 16.5 feet from the roof to a concrete* driveway *below, striking his head on the concrete.*

…The co-owner stated that approximately 0.5 hours before the incident, he knocked a whole stack of shingles off the back side of the roof, damaging the eaves. He stated that at that time he instructed the workers *to let the shingles go if the materials began to slide down the roof.*

B. Learning objectives

a. By the time the trainee completes the training, he/she should be able to understand how <u>unsafe working conditions</u> might lead to a roof fall fatality similar to case #1. "Each employer -- shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees" (OSH Act Section 5(a)(1)).
b. "The employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment to control or eliminate any hazards or other exposure to illness or injury" (1926.21(b)(2)). The second goal of the training for this case is to <u>raise the workers' awareness of the causes of the</u>

[1] Italic text at section a (long description) represents excerpts from FACE website.

roof fall incident and to provide instruction on the safe way to replace shingles on a pitched roof of a residential project, in order to avoid falling off the roof edges.

C. Lesson plan

The trainee will first be shown the figures, which are to be narrated by the trainer, to understand completely the situation leading to the fall. Also, he/she will be trained the safe ways of task performance to avoid the incident. Worker's rights to (1) having a safe and healthful work environment and (2) filing a complaint free from discrimination are other objectives of this case which should be addressed. It is recommended that copies of the OSHA safety and health complaint form be distributed to the trainees to show the required elements in a valid complaint. The trainer should emphasize that if the worker request anonymity, the worker's identity would remain anonymous after filling a complaint form.

Finally, the worker's knowledge should be assessed through two major questions which address: a) the cause of the roof fall incident presented over the training, and b) the alternative safe actions that could be taken to avoid similar incidents.

D. Assumptions

a. **Activity**: Removing old shingles (fiberglass shingles) and installing new shingles (3-tab asphalt composite roofing shingles (1'*3'*4"))
b. **Location**: Peak of the pitched roof of a residence. (Slope: 24 degree above horizontal)
c. **Work expectation**: Doing a good, safe job in a reasonable time
d. **Scenario**: When removing old shingles, the worker struck with his body the newly stacked bundle of shingles next to him at the peak of the roof. He then chased the bundle to stop the shingles from falling, lost his balance, and fell 16.5 feet.

E. Questions

a. Ask what unsafe action(s) caused the incident.
   Items to discuss:
   - Safety issues of the work on open-sided roof edges
b. Ask what action(s) can be taken to avoid the incident. (Which is the correct, or safe, way of performing the task? **The answer is C**.)
   Items to discuss:
   - Slide-guard – Can only be used up to 25 feet when several site requirements are met (1926.500 Appendix E).
   - Guardrails – Each employee on a steep roof with unprotected sides and edges 6 feet (1.8 m) or more above lower levels shall be protected from falling by

guardrail systems with toeboards, safety net systems, or Personal Fall Arrest Systems (PFAS) (1926.501(b)(11)). Practically, guardrails are not intended for steep, pitched roofs.

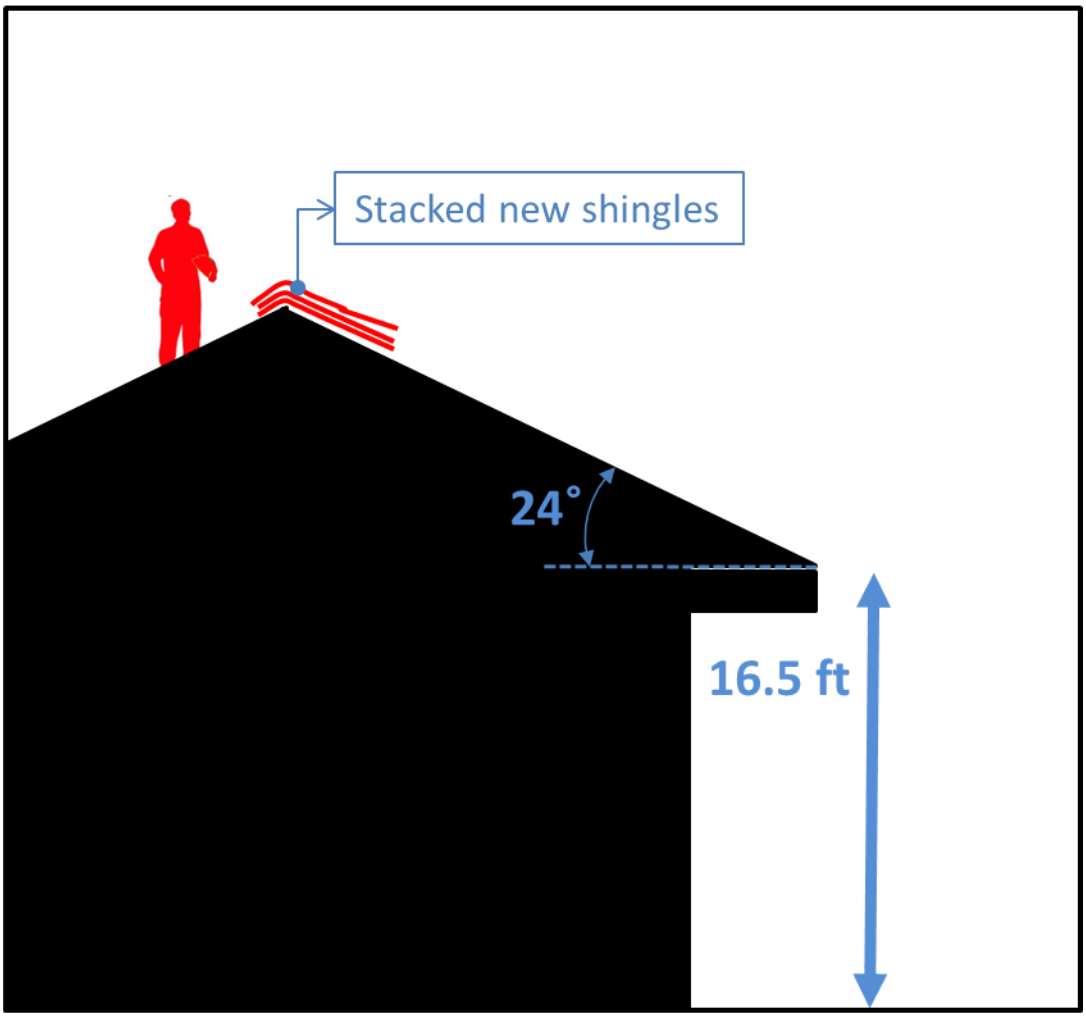
- Not all the roof edges in Option B are protected.
- Harness and life line – Should be able to withstand 5,000 pounds of force.
- Make sure the harness fits and is not defective when using Personal Fall Arrest Systems (PFAS).
- Always stay connected/tie off.
- Ensure that all anchor points are safe.

F. Short description

When removing old shingles at the peak of a pitched roof of a residential building, a roofing helper struck with his body the newly stacked bundle of shingles located next to him. The victim chased the shingles to stop them from falling off the roof, lost his balance, and fell 16.5 feet.

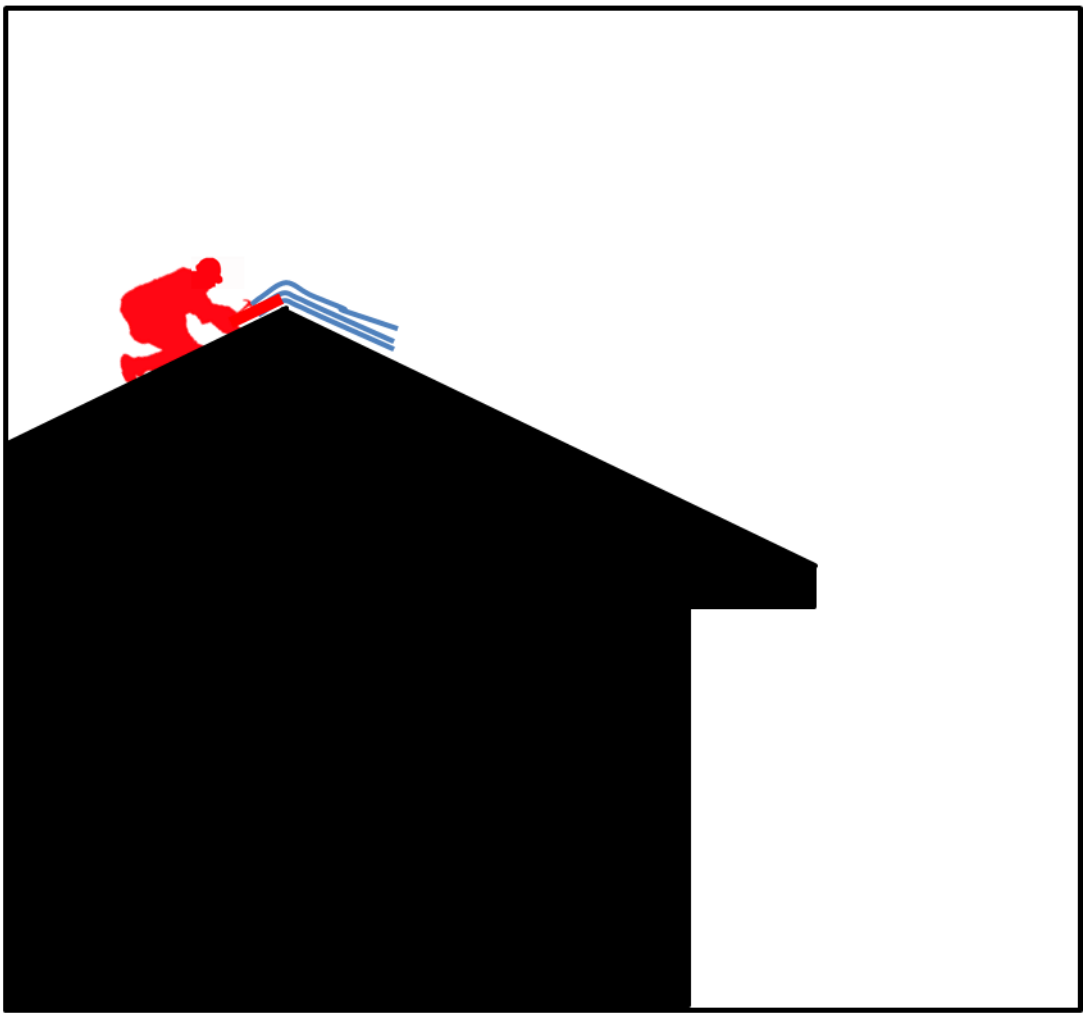
G. Pictorial Prototype

1



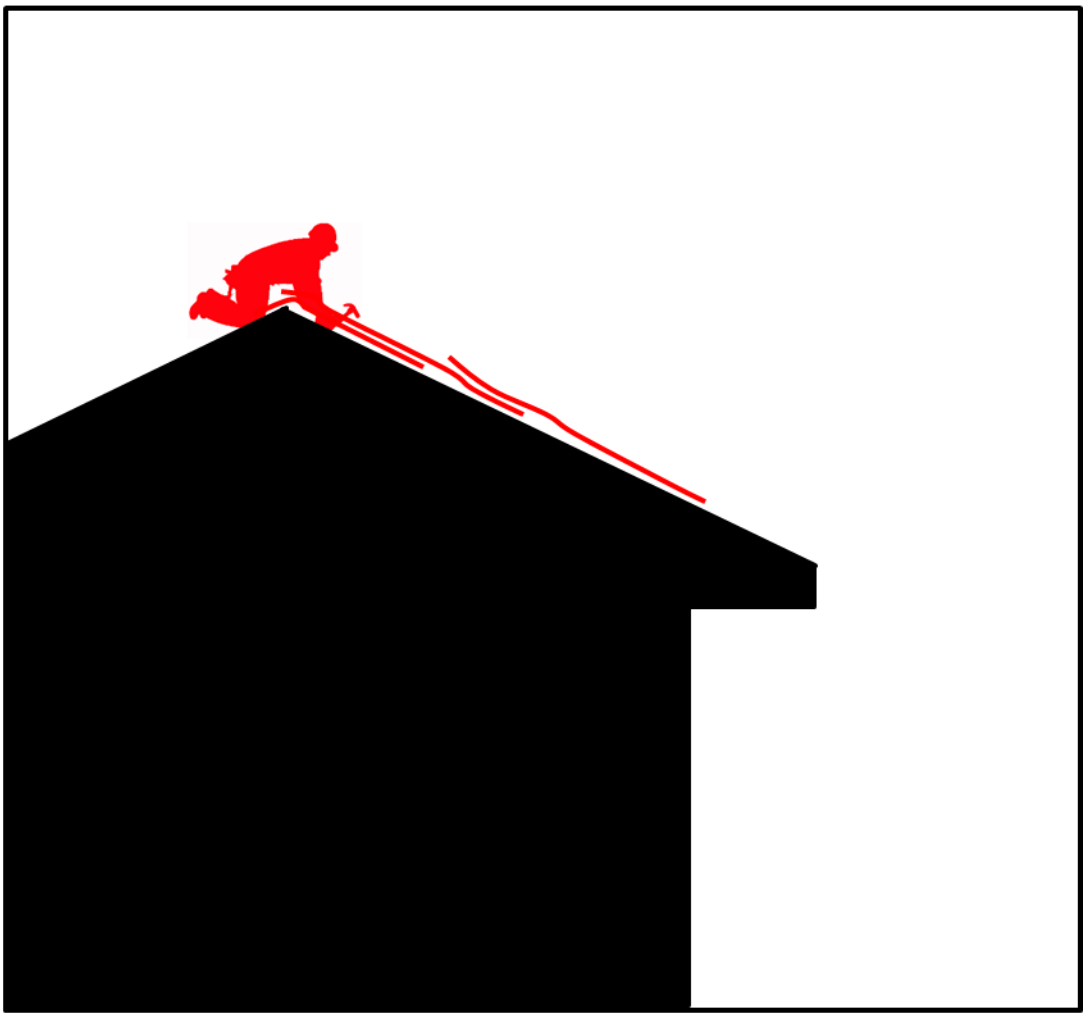
“Remove old shingles and install new ones.” (3-tab asphalt composite roofing shingles (1’*3’*4”))

2



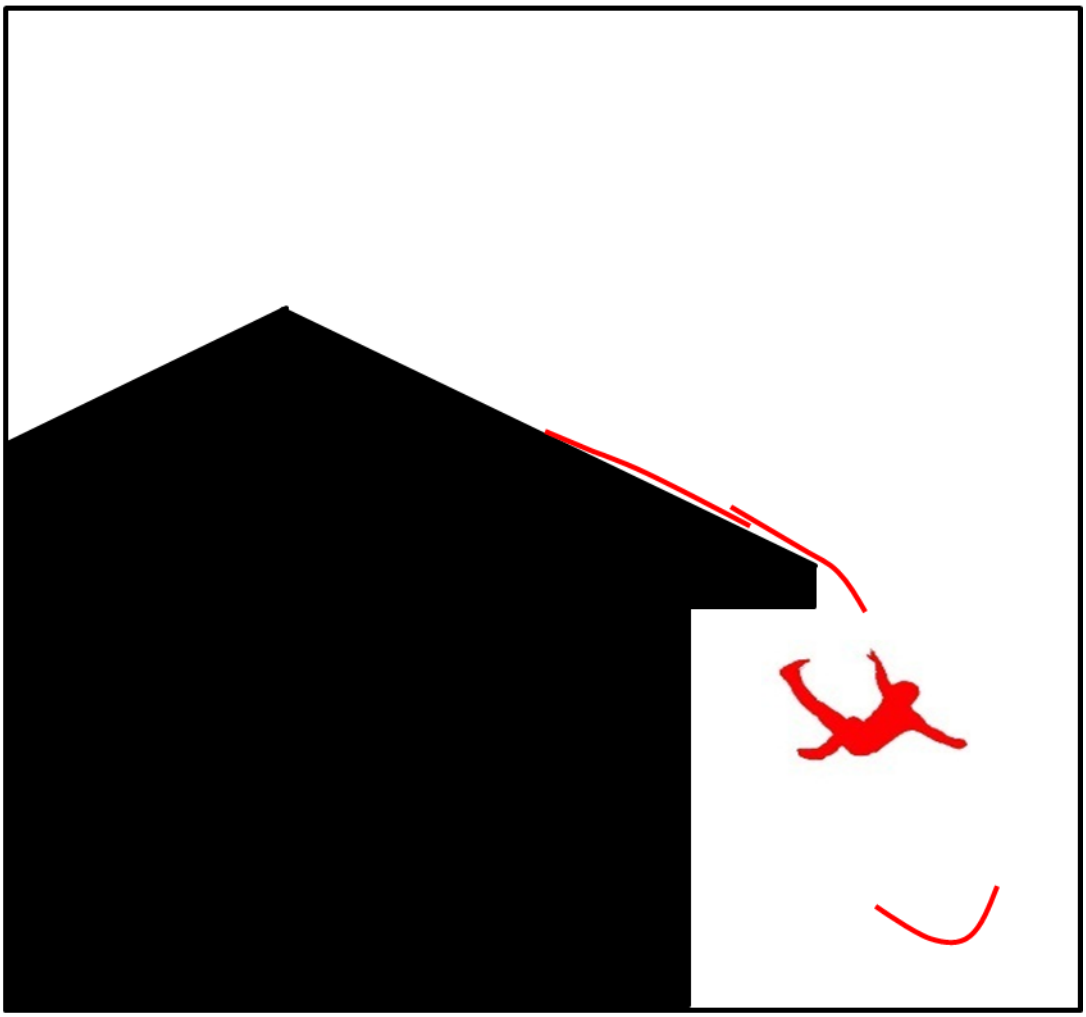
“Let’s get started.”

3



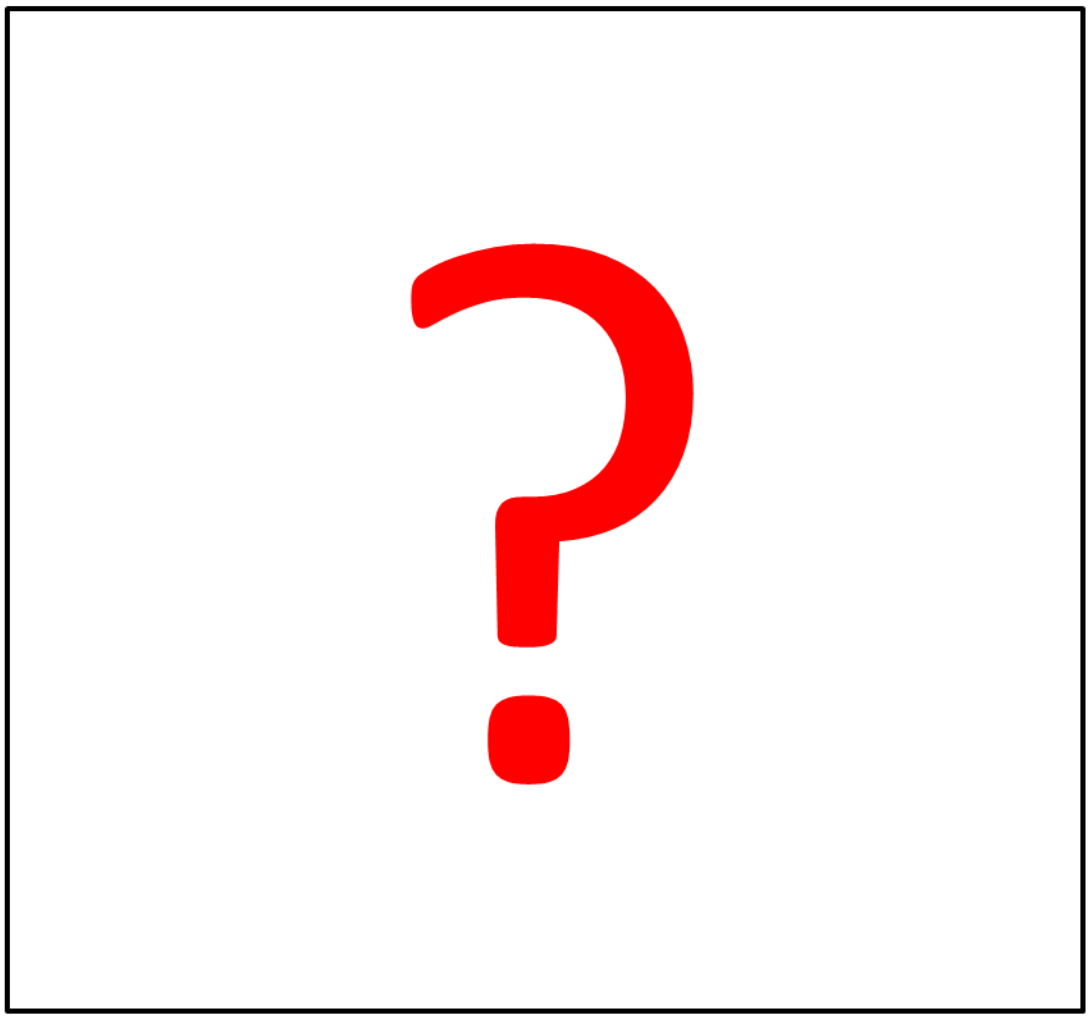
“Oops! I should stop the shingles.”

4



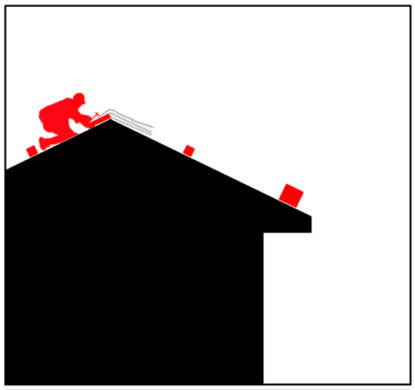
“Helpppppppppppp.”

5



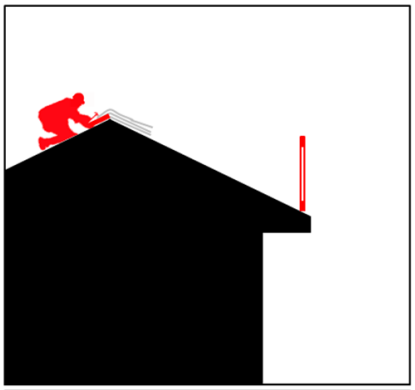
What could I have done differently before my death?

1. Why was the method used to perform the task in this example unsafe?
2. Which is the correct, or safe, way of performing the task?



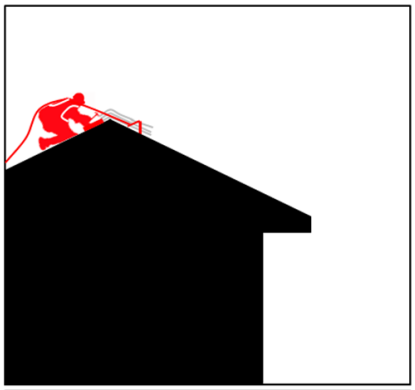
"Add slide-guard?"

A



"Add guardrail on the sloped roof?"

B



"Wear harness and use lifeline?"

C

You have the **RIGHT** to:

1. Ask OSHA to inspect your workplace. (1-800-321-OSHA)
2. Exercise your rights under the law without retaliation and discrimination.
3. Receive information and training about hazards, methods to prevent the harm, and OSHA standards that apply to your workplace. The training must be in a language you can understand.
4. Get copies of test results done to find hazards in your workplace.
5. Review records of work-related injuries and illnesses.
6. Get copies of your medical records.

U. S. Department of Labor
Occupational Safety and Health Administration

Notice of Alleged Safety or Health Hazards

For the General Public:

This form is provided for the assistance of any complainant and is not intended to constitute the exclusive means by which a complaint may be registered with the U.S. Department of Labor.

Sec 8(f)(1) of the Williams-Steiger Occupational Safety and Health Act, 29 U.S.C. 651, provides as follows: Any employees or representative of employees who believe that a violation of a safety or health standard exists that threatens physical harm, or that an imminent danger exists, may request an inspection by giving notice to the Secretary or his authorized representative of such violation or danger. Any such notice shall be reduced to writing, shall set forth with reasonable particularity the grounds for the notice, and shall be signed by the employee or representative of employees, and a copy shall be provided the employer or his agent no later than at the time of inspection, except that, upon request of the person giving such notice, his name and the names of individual employees referred to therein shall not appear in such copy or on any record published, released, or made available pursuant to subsection (g) of this section. If upon receipt of such notification the Secretary determines there are reasonable grounds to believe that such violation or danger exists, he shall make a special inspection in accordance with the provisions of this section as soon as practicable to determine if such violation or danger exists. If the Secretary determines there are no reasonable grounds to believe that a violation or danger exists, he shall notify the employees or representative of the employees in writing of such determination.

NOTE: Section 11(c) of the Act provides explicit protection for employees exercising their rights, including making safety and health complaints.

For Federal Employees:

This report format is provided to assist Federal employees or authorized representatives in registering a report of unsafe or unhealthful working conditions with the U.S.Department of Labor.

The Secretary of Labor may conduct unannounced inspection of agency workplaces when deemed necessary if an agency does not have occupational safety and health committees established in accordance with Subpart F, 29 CFR 1960; or in response to the reports of unsafe or unhealthful working conditions upon request of such agency committees under Sec. 1-3, Executive Order 12196; or in the case of a report of imminent danger when such a committee has not responded to the report as required in Sec. 1-201(h).

INSTRUCTIONS:

Open the form and complete the front page as accurately and completely as possible. Describe each hazard you think exists in as much detail as you can. If the hazards described in your complaint are not all in the same area, please identify where each hazard can be found at the worksite. If there is any particular evidence that supports your suspicion that a hazard exists (for instance, a recent accident or physical symptoms of employees at your site) include the information in your description. If you need more space than is provided on the form, continue on any other sheet of paper.

After you have completed the form, return it to your local OSHA office.

NOTE: It is unlawful to make any false statement, representation or certification in any document filed pursuant to the Occupational Safety and Health Act of 1970. Violations can be punished by a fine of not more than $10,000. or by imprisonment of not more than six months, or by both. (Section 17(g))

Public reporting burden for this voluntary collection of information is estimated to vary from 15 to 25 minutes per response with an average of 17 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An Agency may not conduct or sponsor, and persons are not required to respond to the collection of information unless it displays a valid OMB Control Number. Send comment regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to the Directorate of Enforcement Programs, Department of Labor, Room N-3119, 200 Constitution Ave., NW, Washington, DC; 20210.

OMB Approval# 1218-0064; Expires: 05-31-2014

Do not send the completed form to this Office.

OSHA-7(Rev. 9/93)

U. S. Department of Labor
Occupational Safety and Health Administration

Notice of Alleged Safety or Health Hazards

			Complaint Number	
Establishment Name				
Site Address				
	Site Phone		Site FAX	
Mailing Address				
	Mail Phone		Mail FAX	
Management Official			Telephone	
Type of Business				

HAZARD DESCRIPTION/LOCATION. Describe briefly the hazard(s) which you believe exist. Include the approximate number of employees exposed to or threatened by each hazard. Specify the particular building or worksite where the alleged violation exists.

Has this condition been brought to the attention of:	☐ Employer ☐ Other Government Agency(specify)
Please Indicate Your Desire:	☐ Do NOT reveal my name to my Employer ☐ My name may be revealed to the Employer
The Undersigned believes that a violation of an Occupational Safety or Health standard exists which is a job safety or health hazard at the establishment named on this form.	(Mark "X" in ONE box) ☐ Employee ☐ Federal Safety and Health Committee ☐ Representative of Employees ☐ Other (specify) _____

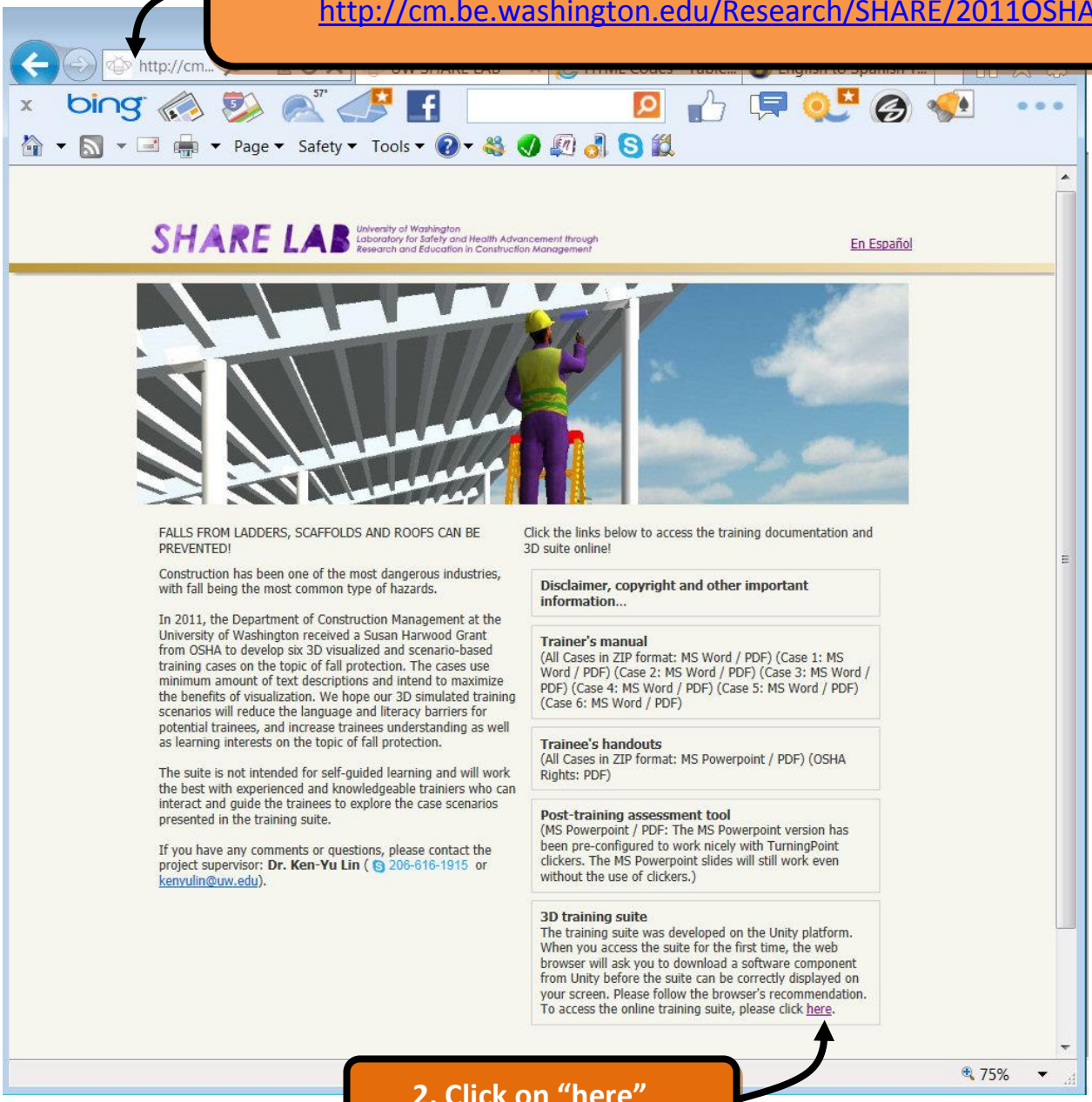
Complainant Name		Telephone	
Address(Street,City,State,Zip)			
Signature		Date	

If you are an authorized representative of employees affected by this complaint, please state the name of the organization that you represent and your title:

Organization Name: Your Title:

1. Click on the link below or copy/paste it onto your browser:

http://cm.be.washington.edu/Research/SHARE/2011OSHA/



2. Click on “here”


Unity Web Player | WebPlayer
FALLS FROM LADDERS, SCAFFOLDS AND ROOFS CAN BE PREVENTED!
Fall Protection Safety Training Suite
Department of Construction Management, University of Washin
English Español
About
« created with Unity »
4. Click on “Case 1”
3. Make sure that “English” is selected (in bold)