SAFETY HEALTH & ENVIRONMENT (SHE) PROGRAM

SHE Basics for Construction
The SHE Manual

- Gives complete details of the affiliate’s SHE Program
- Forms and Resources
- Chapter 3 deals with construction
- Must be posted at the build site
- Available from Affiliate’s SHE Coordinator or on PartnerNet
Other SHE Resources

Materials & Resources*:

- Construction Volunteer SHE PowerPoint
- Homebuilder’s SHE Handbook
- Subcontractors’ SHE Orientation outline
- Daily Safety Talk Checklist
- Hazard Assessment for Habitat construction sites
- Required forms: Jobsite inspection, Accident/Incident report, First aid & Equipment logs, Annual SHE Evaluation Form
- Emergency response posters

(*Available on PartnerNet or on CD from HFHC)
SHE Program At-A-Glance

A tangible solution.

A hand up, not a hand out.

Building Homes. Building Hope.

Hazard

Assessment & Control

Basic equipment & posting requirements

Inspections

Training

Accident & Incident Reporting

Tracking the SHE program’s effectiveness
Hazard Assessment & Control

Hazard Assessment

- To be done by SHE Coordinator & Site Supervisor
- Use *Hazard Assessment* in SHE Manual appendix
- Look for other site specific hazards
- Create/write necessary SWPs

Safe Work Practices (SWP)

- Get familiar with all SWPs
- Ensure that SWPs are followed on site

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## Construction Hazard Assessment

(The MS Excel version of this form is available in the SHE section on PartnerNet)

<table>
<thead>
<tr>
<th>Build Phase or Specific Job/Task</th>
<th>Potential Hazard/Accident Description</th>
<th>Exposure</th>
<th>Occurrence</th>
<th>Probability</th>
<th>Consequences</th>
<th>Risk Rating</th>
<th>Control</th>
<th>Current Control</th>
<th>Recommended Controls</th>
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<td>Accidental cutting or electrical or gas lines</td>
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<td>SWP 12 - Excav. &amp; Trenching</td>
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<td></td>
<td>Accidental contact with overhead power lines</td>
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<td>High</td>
<td>SWP 7 - Overhead Powerlines</td>
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<td>SWP 7 - Overhead Powerlines</td>
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<td></td>
<td>Back injury from lifting heavy materials</td>
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<td>1</td>
<td>A</td>
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<td>A</td>
<td>4</td>
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<tr>
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<td>Sprains and strains from physical activity</td>
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<td>B</td>
<td>3</td>
<td>Medium</td>
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<td>Falls from roof stair or balcony openings</td>
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<td>B</td>
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<td>High</td>
<td>SWP 6 - Fall Protection</td>
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<td>High</td>
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## Basic Equipment & Posting Requirements

- Provincial Safety Regulations booklet
- Signed SHE Policy Statement
- A copy of the affiliate’s SHE Manual
- Emergency Response poster
- Emergency Phone Numbers
- Site map with evacuation routes
- Emergency Procedures chart
- First Aid certificate(s) of first aid person(s)
- Material Safety Data Sheets (MSDS)
- Daily Sign-in Sheet
- First Aid Kit
- Telephone
- Fire Extinguishers
Inspections

- Must be done at least once a week
- Use the *Jobsite Inspection Checklist*
- Equipment: pen & notebook, flashlight, camera, tape measure, SHE Manual
- Look over SHE reports & paperwork first
- Inspect for hazards identified beforehand
- Keep eyes open for other hazards
- Correct immediately hazardous situations
- Talk to workers about dangers or problems they’ve seen
- Record findings on checklist & notebook
- Summarize findings on Inspection Findings & Recommendations page
Training

Site Supervisors
- SHE Basics Course
- First Aid Certification

Sub-Contractors & Employees
- Subcontractor SHE Orientation Checklist
- Documentation of legally required training
- Documentation of WCB information

Volunteers
- SHE Orientation Session
- HFHC Homebuilder’s SHE Handbook
- Daily On-site Safety Talks
Three Types of Volunteers:

Regular Volunteers
- Attend *SHE Orientation Session*
- Give them a copy of the *HFHC Homebuilder’s SHE Handbook*
- Participate in the Daily On-site Safety Talks

Corporate group Volunteers
- Send *SHE Orientation* presentation to group contact person
- Send copies of *HFHC Homebuilder’s SHE Handbook* to group contact
- Participate in the Daily On-site Safety Talks

Walk-up Volunteers
- Give them a copy of the *HFHC Homebuilder’s SHE Handbook*
- Participate in the Daily On-site Safety Talks
- Limited participation until they attend *SHE Orientation Session*:
  - No working on ladders, roofs or at heights above 10’
  - No working with power tools
  - No working with hazardous chemicals
Definitions:

**Accident:** Any event that results in injury or illness to people, or property damage or loss.

**Incident:** An event that could have resulted in injury or illness to people, or property damage or loss, but was narrowly averted (sometimes referred to as a “near-miss incident”).
If an Accident/Incident occurs:

- **Respond** using the Emergency Response & First Aid procedures in the SHE Manual

- **Investigate** to find out exactly what happened and the root cause

- **Report** your findings using the *HFH SHE Incident Report Form*
  - File the Report on site
  - Forward a copy to the affiliate SHE Coordinator
  - Immediately take any corrective action indicated in the Report
Tracking SHE Program Effectiveness

Annual SHE Evaluation:

• Done by affiliate SHE Coordinator
• Based on input of Site Supervisors and other affiliate personnel
• Thorough & accurate inspections & reporting are essential

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Building Homes. Building Hope.
<table>
<thead>
<tr>
<th>SWP-1 Emergency Response</th>
<th>SWP-11 Safe Housekeeping</th>
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</thead>
<tbody>
<tr>
<td>SWP-2 Personal Protective Equipment</td>
<td>SWP-12 Traffic Control</td>
</tr>
<tr>
<td>SWP-3 Fall Protection</td>
<td>SWP-13 Propane Cylinder Safety</td>
</tr>
<tr>
<td>SWP-4 Ladder Safety</td>
<td>SWP-14 Driving Safety</td>
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<tr>
<td>SWP-5 Scaffold Safety</td>
<td>SWP-15 Confined Space Entry</td>
</tr>
<tr>
<td>SWP-6 Electrical Safety</td>
<td>SWP-16 Landscaping</td>
</tr>
<tr>
<td>SWP-7 Overhead Power Lines Safety</td>
<td>SWP-17 Concrete Forming &amp; Placing</td>
</tr>
<tr>
<td>SWP-8 Chemical Safety</td>
<td>SWP-18 House Framing</td>
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<tr>
<td>SWP-9 Hand &amp; Power Tool Safety</td>
<td>SWP-19 Roofing</td>
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<tr>
<td>SWP-10 Material Handling</td>
<td>SWP-20 Landscaping</td>
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</tbody>
</table>
Be Prepared For Emergencies:

- Emergency Response Plan
- Emergency evacuations
- First aid
- Fire control
- Chemical spill response
Develop a site specific plan and communicate it with everyone on site during the Daily Safety Talk:

- **First Aid Attendants**: A certified person on site at all times
- **First Aid Kit**
- **Fire Extinguishers**
- **Posted Items**: Posted on bulletin board
- **Telephone or other communication system**
- **List of all workers on site (daily sign-in sheet)**
Know how to evacuate your worksite in case of an emergency.

Be aware of all possible obstructions to access/egress routes

Plan escape paths before starting work.

Maintain clear access routes to all work areas

In the case of an emergency assemble everyone at the designated safe gathering area.
First Aid Attendant: Certification card must be posted on the bulletin board

Give first aid to workers for any injury, even minor ones

Foreign Objects in Eyes: Always get assistance from the First Aid Attendant or a Medical Professional
Heatstroke Is A Medical Emergency!!

Symptoms:
- High temp (40 C)
- Hot dry skin
- Confusion
- Convulsions
- Unconsciousness
- Irrational Behavior

If anyone shows any of these symptoms call the local emergency number or get them to a hospital right away!

Prevention:
- Wear loose, thin, light colored clothing
- Drink water (8 ounces) every half hour.
- Avoid coffee, tea, or beer.
- Avoid eating hot, heavy meals.
Cold Stress

Symptoms:

- Blue lips and fingers
- Slow breathing and heart rate
- Disorientation
- Confusion
- Poor coordination

Notify the First Aid Attendant if anyone on site experiences any of these symptoms.

Prevention:

- Wear several layers of clothing rather than one thick one
- Wear synthetic fabrics next to the skin to wick away sweat.
- Wear a waterproof outer layer.
- Change out of wet clothes immediately.
- If you get hot, open your jacket but keep your hat and gloves on.
**SWP-1 EMERGENCY RESPONSE**

**Fire Safety**

**Prevention:**
- Keep combustible material away from ignition sources.
- No open fires allowed.
- Welding or disk cutting only within reach of fire extinguisher.
- Prevent sparks from falling on combustible material.
- Store flammable liquids in approved containers.

**In Case of Fire:**
- Try to safely put it out.
- Call fire department or 911.
- Vacate the area of the fire.
- If explosive materials are involved, evacuate all to a safe distance.
- Meet the Fire Department at the site entrance.
SWP-1 EMERGENCY RESPONSE

Chemical Spill Response

- All chemical spills must be considered hazardous and require area evacuation
- Only trained and qualified persons will attempt a rescue or a clean-up response
- Do not come in contact with the spilled material
- Never clean up a spill alone
- Promptly notify the Regional Spills Action Centre and/or the local Fire Department

Always report any spill using the Accident/Incident Report Form
SWP-2 PERSONAL PROTECTIVE EQUIPMENT

- **Hard hats** must be worn at all times
- **Safety boots** must be worn at all times
- **Safety glasses** must be worn when eye hazards are present.
- **Other PPE** for specific tasks: ear plugs, gloves, dust masks, and fall protection.
Hard Hats

- Must be worn at all times on the job site
- Must be worn properly, with the cap facing front
- Should not be decorated with stickers (may hide cracks or damage, chemical reaction with the adhesive may weaken the structure of hard hats)
- Have an expiry date set by manufacturer, when they must be discarded (usually about 5 years)
SWP-2 PERSONAL PROTECTIVE EQUIPMENT

Safety Shoes

- Must be worn at all times on the job site
- Must be CSA-certified, labeled with the green triangle patch

IF A SOMEONE SHOWS UP AT THE SITE WITHOUT SAFETY SHOES:

- They can borrow a pair on site if loaners are available
- If not, they will need to go find a pair on their own
- Can NOT be allowed on the build site without safety shoes
SWP-2 PERSONAL PROTECTIVE EQUIPMENT

Safety Glasses

- Must be worn whenever eye hazards are present
- Must have side shields
- Must be CSA approved industrial quality

Eye hazards:

- Wood chips
- Steel particles when hammering
- Dust
- Dripping adhesives
- Material falling during overhead work
- Protruding materials in path
SWP-2 PERSONAL PROTECTIVE EQUIPMENT

Other PPE

Ear Plugs or Ear Muffs

- When using power saws, drills or other loud equipment.

Gloves

- When loading or unloading materials, or working with cement or other corrosive materials.

Masks

- When sawdust, concrete dust, drywall dust, fiberglass insulation or paint vapors are present.

Personal fall protection

- When working at a height of more than 10 feet without safety rails. This PPE requires special training and a written record of the training.
Falls cause:
• half of the deaths in construction each year.
• the most severe non-fatal injuries on construction sites.

- Keep stairs & access areas clear
- Install properly constructed guardrails.
- Provide safe walkways: ramps, stairs.
- Cover floor openings. Secure the covers and mark them as covers.
- Clear ice, snow, & mud in work areas
- Use properly built scaffolds and work platforms.
- Use ladders safely
- When working at heights, workers must always use Fall Protection

SWP-3 FALL PROTECTION
When is a Fall Protection System Required?

- 10 feet or more above ground or floor level
- Above operating machinery
- Above hazardous substances or objects, or
- While on an elevated work platform other than a scaffold with guardrails.

Most common tasks requiring Fall Protection System:

- Erecting roof trusses
- Roof sheathing
- Roof shingling
- Siding installation

What is a Fall Protection System?

1. Guardrails
2. Personal Travel Restraint
3. Personal Fall Arrest
1. GUARDRAILS

- 2x4 Construction (or equivalent)
- Between 3- 3 ½ feet high
- With top, middle & toe rail
- Vertical posts at least every 8’
- Placed no more than 12” from the edge of the surface
- Must comply with provincial regulations
- Workers installing guardrails must use another fall protection system
2. Personal Travel Restraint

- Full body harness
- Lanyard attached to harness
- Anchor rated at 450 lb.
- Prevents worker from falling over edge
- Must receive special training to use this system

3. Personal Fall Arrest

- Full body harness
- Lanyard attached to harness
- Lifeline attached to anchor rated at 1800 lb.
- Prevents worker from hitting ground after falling
- Must receive special training to use this system
On steep roofs, >8:12 slope, 2x6 toe-holds must be installed

Work above 25’ requires a site specific, written fall protection plan & special training of workers

An alternative to fall protection systems:

Build the roof on the ground and hoist it onto the walls with a crane
SWP-4 LADDER SAFETY

Hazards:
❌ Broken or damaged parts
❌ Electrocution
❌ Falls

Safe Practices

Step Ladders
❌ Workers must never climb past the second rung from the top
❌ Make sure spreaders are locked in place.
❌ Barricade nearby doorways

Straight Ladders
❌ Must rest against a firm surface.
❌ Use the 1:4 rule. 1 foot out for every 4 feet up.
❌ Must be tied off at top
❌ Must extend 3’ beyond the top landing.
❌ Safety feet on ladder must be intact.
**SWP-4 LADDER SAFETY**

**General**
- Use heavy duty Grade 1 CSA certified ladders
- Check ladder for defects, don't use if damaged.
- Wood ladders must have only clear coating
- Don’t use metal ladders near electrical hazards
- When using a power tool, never hold onto a grounded object.
- Set ladder on a firm level surface.
- Use ladders only for short-duration work.
- Never carry heavy materials up a ladder, use a hoist.
- Never use ladders as scaffolding planks
- Maintain 3-point contact (2 hands & 1 foot or 1 hand & 2 feet).
- Have a selection of ladders available to reduce reaching.
- Workers must be tied off to a fixed support when above 10 ft.
- Boots should not be wet or slippery.
- Keep the area around the ladder clear of clutter and debris.

**Safe Practices**
WHMIS (Worker Hazardous Material Information System) is a Canada-wide system to protect health and safety.

The WHMIS system consists of:

- WHMIS Labels
- Material Safety Data Sheets (MSDS)
- Worker Education
WHMIS LABELS

- Must be attached to any hazardous materials
- Give the name of the material
- Warn of dangers
- Refer to the MSDS
- Give precautionary and first aid measures
- Show hazard symbols

Class A
Compressed Gas

B
flammable

C
oxidizer

D1
acute toxic

D2
chronic toxic

D3
radioactive

E
corrosive

F
dangerously reactive
MATERIAL DATA SAFETY SHEETS (MSDS)

- Must be kept on site for all hazardous materials
- Contain detailed information for handling emergencies or clean-ups, and safe use of product
- The supplier or manufacturer is required to supply a MSDS for each hazardous material they sell
SWP-8 CHEMICAL SAFETY

WORKER EDUCATION

- Done on site by Site Supervisor or SHE Coordinator
- Covers the specific hazardous materials you will be working with on the build site
- Explains work practices and emergency procedures relating to any hazardous materials the worker will be exposed to
Site Supervisor
SHE Responsibilities

- Ensure that the SWPs are being followed on-site
- Conduct Daily On-site Safety Talk at the beginning of each work day, and verify that all volunteers have received the required training
- Ensure that workers use or wear the required PPE
- Have an up-to-date list of all workers on site at all times
- Conduct weekly site inspections, complete the Jobsite Inspection Form.
- Investigate all accidents/incidents; Accident/Incident Report Form
- Plan and supervise all Emergency Response activities
- Plan and communicate work assignments to enable workers to work safely
- Ensure that workers are aware of potential hazards
- Review safety aspects of each task with crew
- Encourage workers to report SHE problems
- Respond quickly and appropriately to worker concerns
- Set an example by being consistently safety conscious
1. What are the basic components of the SHE Program:
   
   H________________________
   A________________________
   B________________________
   I_________________________
   T________________________
   A________________________
   T________________________

2. The Hazard Assessment:
   a. should be done by the affiliate's board of directors
   b. should be done using the form in the SHE Manual
   c. can be done informally without using any forms

3. The Habitat Safe Work Practices (SWPs):
   a. must be followed at all times
   b. must be followed unless they slow down the work process

4. Which of the following items are you not required to be posted on site:
   a. a copy of the SHE Manual
   b. material Safety Data Sheets
   c. the Canadian Charter of Rights & Freedoms
   d. daily Sign-in Sheet

5. Site safety inspections must be done:
   a. at least once for each build site
   b. every day
   c. at least once a week

6. Who is required to attend a safety orientation?
   a. Only volunteers
   b. Only professional subcontractors
   c. Both volunteers and subcontractors

7. Three things you must do when an accident occurs are:
   a. Respond, Investigate & Run
   b. Respond, Investigate & Report
   c. Respond, Investigate and Exhort

8. The first aid certificate of the on-site attendant must be:
   a. carried by the attendant at all times
   b. posted on-site on the bulletin board
   c. kept in a secure filing cabinet in the office

9. If a volunteer has a high temperature, dry skin and exhibits irrational behavior you should:
   a. send the person home to sleep it off
   b. call 911 and get them to the hospital
   c. have the person sit down for a few minutes

10. Hard hats and safety boots must be worn at all times on the build site by:
    a. all volunteers
    b. professional subcontractors
    c. all habitat staff
    d. all of the above

11. A Personal Fall Protection system must be worn:
    a. at all times on the build site
    b. when working above 10 ft without safety rails
    c. when working above 30 ft without safety rails

12. If a ladder is damaged:
    a. don’t use it
    b. repair it with duct tape right away
    c. continue to use it, but repair it as soon as possible

13. WHMIS labels for hazardous materials must:
    a. be kept on site and available in case someone asks for them
    b. be attached to the material's container at all time
    c. be marked with a scull and crossbones

14. Ensuring that SWPs are followed on site is the responsibility of:
    a. the SHE coordinator
    b. the Site Supervisor
    c. the government safety inspector