JOBSTEP SAFETY

Job Hazard Analysis: free example

Tearing off asphalt shingles on a house roof

Company	_____
Site or project	_____
Location on site	_____
Conditions today	_____ (weather, ground, access, other work nearby)
Task	Tearing off asphalt shingles on a house roof
Trade	Roofing
State	_____
Work type	Construction (29 CFR Part 1926)
Prepared by	_____
Date of the work	_____
Library reference	L06, Roofing

HOW TO USE THIS JHA

1. This JHA is filled in for the task as it is usually done. Walk the job: cross out what does not apply, and add any step, hazard or control your site needs.
2. Fill in every highlighted line before work starts. In the Word file you can type them in.
3. Go through each step with the crew at the start of the shift, on site, before anyone starts work.
4. Have everyone who does the work sign the crew sign-on sheet. Keep a copy on site.
5. It follows federal OSHA construction rules (29 CFR Part 1926). In a State Plan state, check your state's rules as well.

Before work starts

Highlighted lines must be filled in or confirmed for your site before anyone starts work.

- ☐ Confirm whether a hospital or clinic can be reached quickly from this site.
- ☐ Person in charge on site: _____
- ☐ Address or location to give 911 callers: _____
- ☐ Nearest hospital or clinic: _____
- ☐ Person on site with valid first-aid training: _____
- ☐ How a worker held by a fall arrest system will be rescued, and by whom: _____

Protective equipment for this job

- Full-body harness with a rope grab or lanyard, connected to a roof anchor
- Hard hat for the ground crew, and on the roof where objects can fall from above
- Safety glasses
- Cut-resistant work gloves
- Work boots with soft, slip-resistant soles

Training and competent person

29 CFR 1926.1060(a)
Workers using ladders must be trained, as necessary, to recognize ladder hazards and the procedures to reduce them.

29 CFR 1926.1053(b)(15)
A competent person inspects ladders for visible defects periodically and after anything that could affect their safe use.

29 CFR 1926.503(a)(1)
Anyone who might be exposed to fall hazards must be trained to recognize them and in the procedures to reduce them.

29 CFR 1926.21(b)(2)
Every worker must be instructed in recognizing and avoiding the unsafe conditions and rules that apply to their work.

Step by step

Step 1. Set up the ladder for roof access

WHAT CAN GO WRONG

- Ladder slides or tips at the eave (fall from the ladder)
- Stepping off the ladder onto the roof with nothing to hold (fall from the roof edge)

HOW WE CONTROL IT

Guards, barriers and equipment

- Set the ladder on firm, level ground and tie it off at the top.

Work practices and checks

- Extend the side rails at least 3 feet above the eave so there is something to hold when stepping on and off.
- Set the foot out about one-quarter of the working length, and keep the ladder clear of power lines.

Rules: 1926.1053(b)(6), 1926.1053(b)(4), 1926.1053(b)(21), 1926.1053(b)(22), 1926.1060(a), 1926.1053(b)(1), 1926.1053(b)(5)(i), 1926.1053(b)(7), 1926.1053(b)(8), 1926.1053(b)(20), 1926.1053(b)(15), 1926.1053(b)(16) (see Rules that apply)

Step 2. Install roof anchors and connect to fall arrest

WHAT CAN GO WRONG

- Working at the eave before anything is tied off (fall from the roof)
- Anchor fixed into rotten decking or with the wrong fasteners (the anchor pulls out during a fall)
- Worker held by the harness after a fall with no plan to get them down (injury from hanging in the harness)

HOW WE CONTROL IT

Work practices and checks

- Install anchors from the ladder or from a point already protected, before anyone walks the roof.
- Fix anchors into solid framing with the fasteners the anchor maker specifies.
- Connect the rope grab and lanyard before stepping onto the roof, and stay connected the whole time on the roof.
- Agree who will rescue a worker held by the harness, and how, before work starts.

Protective equipment

- Wear a full-body harness. Never use a body belt for fall arrest.

Rules: 1926.501(b)(1), 1926.501(b)(4)(i), 1926.503(a)(1), 1926.502(d)(20), 1926.501(b)(11), 1926.501(b)(13) (see Rules that apply)

Step 3. Protect the ground below and place the dumpster

WHAT CAN GO WRONG

- Debris thrown from the roof hits people, cars or windows below (head and body injuries, property damage)
- Dumpster placed under overhead lines or blocking a walkway (electric shock to the driver, trips and struck-by injuries)

HOW WE CONTROL IT

Guards, barriers and equipment

- Set the dumpster tight under the roof edge where debris will be dropped.
- Rope off a drop zone below the roof edge and keep people and vehicles out of it.
- Cover windows, plants and AC units with plywood or tarps.

Work practices and checks

- Keep the dumpster clear of overhead lines and doorways.

Rules: 1926.100(a), 1926.102(a)(1), 1926.25(a) (see Rules that apply)

Step 4. Tear off the shingles and underlayment

WHAT CAN GO WRONG

- Slipping on loose shingles, granules or felt (sliding off the roof)
- Lifeline tangled or caught underfoot (trips and falls)
- Exposed nails and sharp shingle edges (cuts and puncture wounds)
- Hot sun on a dark roof (heat illness)

HOW WE CONTROL IT

Guards, barriers and equipment

- Install roof brackets and toe boards as the tear-off moves down the roof.

Work practices and checks

- Clear torn-off material as you go. Do not let piles build up on the roof.
- Keep lifelines to one side of the work and re-route them before moving.
- Drink water often, take breaks in the shade, and watch each other for signs of heat illness.

Protective equipment

- Wear gloves, safety glasses and boots with soft soles that grip.

Rules: 1926.501(b)(1), 1926.501(b)(4)(i), 1926.503(a)(1), 1926.502(d)(20), 1926.100(a), 1926.102(a)(1), 1926.25(a), 1926.501(b)(11), 1926.501(b)(13) (see Rules that apply)

Step 5. Drop the debris into the dumpster

WHAT CAN GO WRONG

- Debris misses the dumpster and lands on someone (struck by falling material)
- Losing balance at the edge while throwing (fall from the roof)

HOW WE CONTROL IT

Guards, barriers and equipment

- Use a debris chute where the dumpster cannot sit right under the edge.

Work practices and checks

- Call out before dropping debris, and drop it only when the zone below is clear.
- Stay connected to fall arrest at the edge. Drop small loads you can control.

Rules: 1926.501(b)(1), 1926.501(b)(4)(i), 1926.503(a)(1), 1926.502(d)(20), 1926.100(a), 1926.102(a)(1), 1926.25(a), 1926.501(b)(11), 1926.501(b)(13) (see Rules that apply)

Step 6. Inspect and replace damaged decking

WHAT CAN GO WRONG

- Stepping onto rotten decking or into an opening where boards are removed (fall through the roof)
- Circular saw kickback or a missing guard (cuts and amputations)
- Damaged extension cords on the roof (electric shock)

HOW WE CONTROL IT

Guards, barriers and equipment

- Cover or guard every opening as soon as boards come out, and fix the new sheet before moving on.
- Use a saw with both guards working, and keep the lower guard free to snap back.
- Run cords from GFCI protection and keep them clear of the cut line.

Work practices and checks

- Walk on the rafters, not between them, where the deck is soft.

Rules: 1926.501(b)(1), 1926.501(b)(4)(i), 1926.503(a)(1), 1926.502(d)(20), 1926.300(a), 1926.300(b)(1), 1926.404(b)(1)(ii), 1926.416(e)(1), 1926.302(a)(1), 1926.304(d), 1926.304(d), 1926.501(b)(11), 1926.501(b)(13) (see Rules that apply)

Step 7. Dry in the roof and clean up at the end of the day

WHAT CAN GO WRONG

- Loose nails left in the yard and driveway (puncture wounds and flat tires)
- Tarps or underlayment blown off in wind (struck by flying material, a fall while chasing it)

HOW WE CONTROL IT

Guards, barriers and equipment

- Fasten underlayment or tarps down before the crew leaves.

Work practices and checks

- Sweep the yard, driveway and drop zone with a magnetic sweeper.
- Take the ladder down or block it so nobody can climb it after hours.

Rules: 1926.25(a), 1926.100(a), 1926.102(a)(1), 1926.501(b)(1), 1926.501(b)(4)(i), 1926.503(a)(1), 1926.501(b)(11), 1926.501(b)(13) (see Rules that apply)

Rules that apply to this job

Each rule in plain words. The regulation text itself is at osha.gov under the section number.

29 CFR 1926.1053(b)(6) Step 1
Set ladders only on stable, level surfaces, or secure them so they cannot move.

29 CFR 1926.1053(b)(4) Step 1
Use a ladder only for what it was designed for.

29 CFR 1926.1053(b)(21) Step 1
Keep at least one hand on the ladder when climbing up or down.

29 CFR 1926.1053(b)(22) Step 1
Do not carry anything on a ladder that could make you lose your balance.

29 CFR 1926.1060(a) Step 1
Workers using ladders must be trained, as necessary, to recognize ladder hazards and the procedures to reduce them.

29 CFR 1926.1053(b)(1) Step 1
A portable ladder used to reach an upper level must extend at least 3 feet above it (or be secured at the top with a grab rail where it cannot).

29 CFR 1926.1053(b)(5)(i) Step 1
Set an extension or straight ladder so its foot is out from the top support by about one-quarter of the working length.

29 CFR 1926.1053(b)(7) Step 1
On a slippery surface, secure the ladder or use slip-resistant feet so it cannot move.

29 CFR 1926.1053(b)(8) Step 1
A ladder in a passageway, doorway, driveway or other spot where it can be knocked must be secured, or barricaded from the traffic.

29 CFR 1926.1053(b)(20) Step 1
Face the ladder when climbing up or down.

29 CFR 1926.1053(b)(15) Step 1
A competent person inspects ladders for visible defects periodically and after anything that could affect their safe use.

29 CFR 1926.1053(b)(16) Step 1
A portable ladder with structural defects is marked as defective or tagged "Do Not Use" and taken out of service until repaired.

29 CFR 1926.501(b)(1) Steps 2, 4, 5, 6, 7
At an unprotected side or edge 6 feet or more above a lower level, workers need guardrails, safety nets or personal fall arrest.

29 CFR 1926.501(b)(4)(i) Steps 2, 4, 5, 6, 7
Holes and skylights more than 6 feet above a lower level need covers, guardrails or personal fall arrest.

29 CFR 1926.503(a)(1) Steps 2, 4, 5, 6, 7
Anyone who might be exposed to fall hazards must be trained to recognize them and in the procedures to reduce them.

29 CFR 1926.502(d)(20) Steps 2, 4, 5, 6
Where personal fall arrest is used, there must be a way to rescue a fallen worker promptly.

29 CFR 1926.501(b)(11) Steps 2, 4, 5, 6, 7
On a steep roof (slope greater than 4 in 12, as 29 CFR 1926.500 defines it), workers at unprotected sides and edges 6 feet or more above a lower level need guardrails with toeboards, safety nets or personal fall arrest.

29 CFR 1926.501(b)(13) Steps 2, 4, 5, 6, 7
In residential construction, work 6 feet or more above a lower level needs guardrails, safety nets or personal fall arrest. Only if the employer can show these are infeasible or create a greater hazard may it use a written fall protection plan that meets 1926.502(k) instead.

29 CFR 1926.100(a) Steps 3, 4, 5, 7
Wear a hard hat where there is a possible danger of head injury from impact, falling or flying objects, or electrical shock and burns.

29 CFR 1926.102(a)(1) Steps 3, 4, 5, 7
Use eye or face protection against flying particles, molten metal, chemicals, gases or vapors, or harmful light.

29 CFR 1926.25(a) Steps 3, 4, 5, 7
Keep scrap lumber with protruding nails and all debris cleared from work areas, passageways and stairs.

29 CFR 1926.300(a) Step 6
Keep all hand and power tools in safe condition, whoever owns them.

29 CFR 1926.300(b)(1) Step 6
Power tools designed for guards must have them on when in use.

29 CFR 1926.404(b)(1)(ii) Step 6
Temporary 120-volt, 15- and 20-amp outlets in use on site need GFCI protection (small generators have a stated exception).

29 CFR 1926.416(e)(1) Step 6
Do not use worn or frayed cords or cables.

29 CFR 1926.302(a)(1) Step 6
Electric power tools must be double-insulated or grounded.

29 CFR 1926.304(d) Step 6
Portable circular saws have guards above and below the base plate or shoe.

29 CFR 1926.304(d) Step 6
When the saw comes out of the cut, the lower guard must snap back over the blade on its own.

29 CFR 1926.21(b)(2) Whole job
Every worker must be instructed in recognizing and avoiding the unsafe conditions and rules that apply to their work.

29 CFR 1926.28(a) Whole job
The employer must require appropriate PPE wherever workers are exposed to hazardous conditions.

29 CFR 1926.50(c) Whole job
If no clinic or hospital is reasonably accessible, a person with valid first-aid training must be available on site.

Crew sign-on

By signing, I confirm this JHA was reviewed with me before I started this task, and I know who to tell if the work or conditions change.

Name (print)	Signature	Date