Minimizing Risk from Spilled Fluids Through Preparedness & Compliance

Why clean, dry workplace floors are important to OSHA and how following their regulation will reduce your risk.

What is an SPCC Plan (Spill Prevention Control & Countermeasure) and which facilities are required by the EPA to have one in place.

OSHA, EPA, and DOT regulations and what you can do to maintain your compliance (*and prevent unnecessary fines, environmental issues and costly workplace injuries*).

Slips: Identification, Associated Costs, & Prevention

- Defined as a loss of balance caused by too little friction between your feet and the surface you walk or work on
- **Slips can be caused by:**
  - Liquids that have spilled and not cleaned up
  - Dust or other particles accumulated on floor
  - Improper floor cleaning (overly polished floors)
  - Transition areas with changes to floor friction
  - Wearing wrong footwear
  - Low lighting
- Many facilities overlook the need to evaluate slip hazards—perhaps because these types of incidents are not directly tied to specific job duties or tasks, unlike those identified during a job hazard analysis (JHA).
- Most slips can be prevented!

Slip Hazard Examples

Costly to Employer & Worker

Employer

- Worker's compensation claim
- Loss of productivity
- Increased insurance premiums
- Costs associated with hiring & training replacements
- Decline in team member morale

Employee

- Lost wages & out of pocket expenses
- Physical pain
- Temporary or permanent disability
- Reduced quality of life
- Depression
- Death

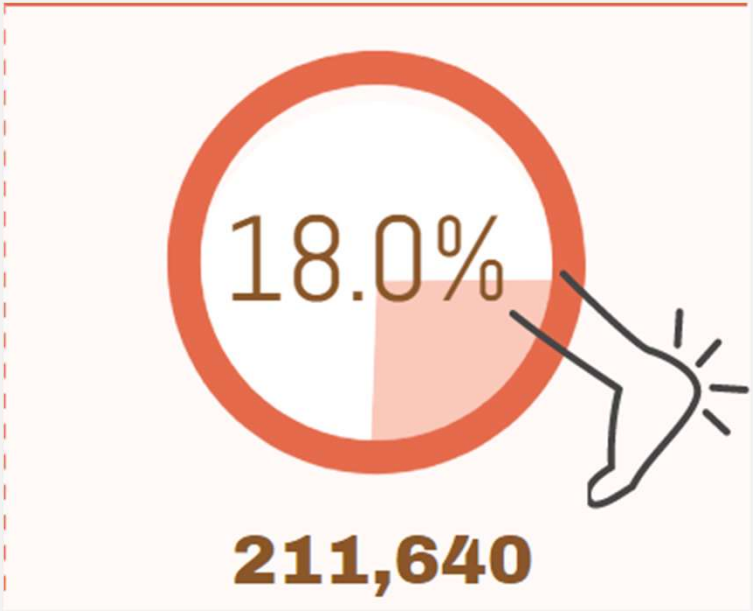
Slips, Trips, & Falls Statistics

#3

Falls, slips, trips

- **Injury rate**: 21.7 per 10,000 full-time workers
- **Age group** most at risk: 55 and over
- **Industry** most at risk: transportation and warehousing and agriculture
- **Typical days lost**: 14
- Most frequent **type of injury**: sprains, strains, tears

A leading nonfatal work-related injury involving days away from work in 2020



OSHA 29 CFR 1910: Walking-Working Surfaces

1910.22 General requirements.

(a) *Surface conditions.* The employer must ensure:

(1) All places of employment, passageways, storerooms, service rooms, and walking-working surfaces are kept in a clean, orderly, and sanitary condition.

(2) The floor of each workroom is maintained in a clean and, to the extent feasible, in a dry condition. When wet processes are used, drainage must be maintained and, to the extent feasible, dry standing places, such as false floors, platforms, and mats must be provided.

(3) Walking-working surfaces are maintained free of hazards such as sharp or protruding objects, loose boards, corrosion, leaks, spills, snow, and ice.

Walking / Working Surfaces ANSI / ASSP A1264

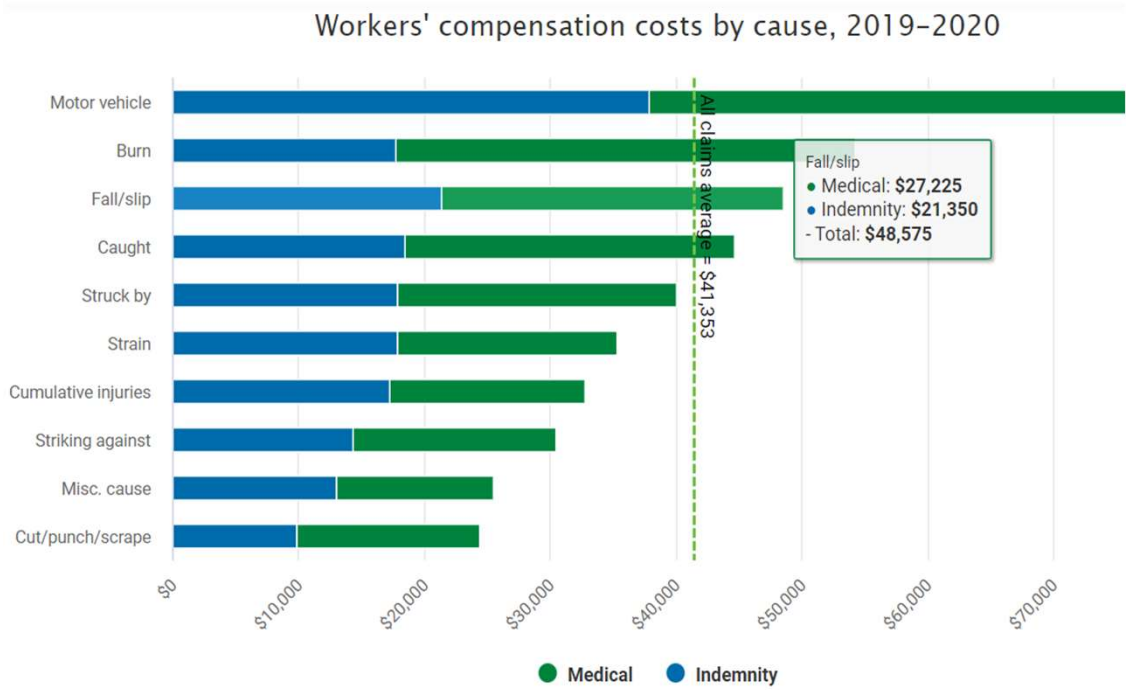
ANSI / ASSP A1264.2-2022 addresses three basic factors:

1. Practices for facilitating adequate friction when walking on a working surface and pedestrian safety
2. Discussion of test procedures and equipment
3. Guidance on investigation and analysis of slip misstep incidents

"Given the costs associated with falls and fall claims, this standard is an extremely important tool in terms of reducing same level falls, as well as falls on stairs, on elevated surfaces, or through floor or wall openings"

– **Keith Vidal, M.S., P.E., CXLT,** *Chair of the A1264 Accredited Standards Committee*

Workers' Compensation Claims



Average lost-time worker's compensation claim for slips or falls = $48,575

Slip Prevention: Workspace Design

- Design workplace & processes to prevent potential exposures to slip & trip hazards
- Maintain clear, clean, and dry work areas free of clutter
- Contain work processes to prevent spillage of liquids, oils, particles, & dusts onto floor
- Implement containment or drip trays for process equipment & have appropriate absorbent spill response materials on-hand
- Reduce overspray or splatter from process equipment
- Ensure adequate ventilation to avoid steam & condensation of water or grease onto floors

Slip Prevention: ANSI / ASSP Best Practices

To prevent workplace slips and falls, ANSI/ASSP A1264.2-2022 maintains management should to the following:

- Ensure the walking-working surface has acceptable friction under foreseeable (weather) conditions
- Make use of barricades, warnings, and other relevant signage to make a foreseeable slip hazard known
- Monitor and test surface friction with a tribometer to meet verification requirements on dry, wet, contaminated, non-level, and non-planar walkway surfaces
- Ensure pedestrian safety by using floor mats and runners
- Implement training, supervision, and a routine housekeeping program (e.g., written procedures) to maintain safe walkway surfaces
- Utilize illumination design to minimize shadows that obscure hazardous conditions
- Control footwear worn has sufficient frictional properties
- Install an investigation program (with the use of standardized data recording forms) to analyze the source and timing of any slips and falls

Product Solutions: *Slipfyter by Spilfyter*

Awareness & Absorbents – HVU Series Pads & Rolls

SPILFYTER 16"X18" HI-VIS UNIVERSAL HEAVYWEIGHT SORBENT PADS (100 CT)

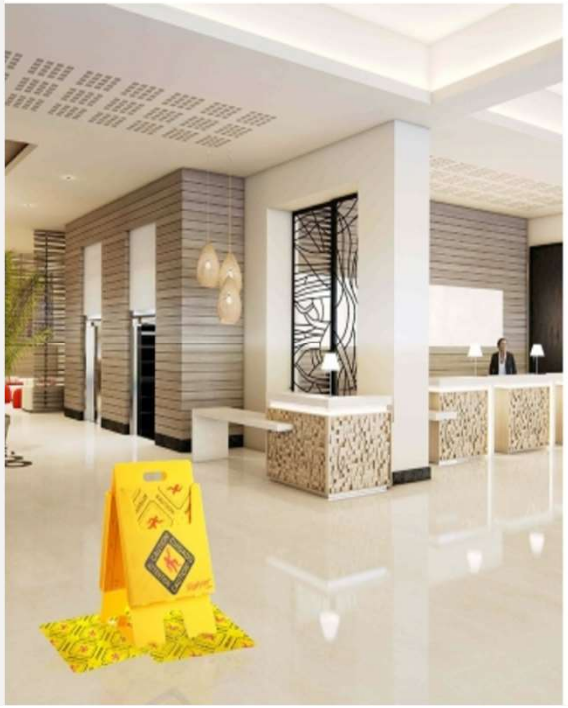
Item No. HVU-75

Features & Benefits:

- A multi-use product offering that combines an absorbent with a caution/warning sign.
- High-Visibility print layer draws quick visual attention to the affected area is strong and tear resistant.
- These sorbents are virtually lint-free and highly durable for high viscosity or high traffic applications.
- Spunbond material is extremely strong and can withstand rigorous abuse from foot traffic.
- Won't tear apart when pulled or placed under equipment.
- Product absorbs water, oil, diesel, gas, coolants, cutting fluids, hydraulic fluids, vegetable oil, acetone, turpentine, and more.

Product Solutions: *Slipfyter by Spilfyter*

Awareness & Absorbents – Caution Stand Kits



SPILFYTER HI-VIS UNIVERSAL CAUTION STAND KIT

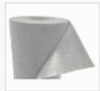
Item No. HVU-700CS

Features & Benefits:

- High-Visibility print layer on absorbent pads is strong and tear resistant. Keep the stand and simply refill with more absorbent pads!
- High-Visibility print layer draws quick visual attention to the affected area is strong and tear resistant.
- Each box of contains 5 packs of (20) pads.
- These sorbents are virtually lint-free and highly durable for high viscosity or high traffic applications.
- Spunbond material is extremely strong and can withstand rigorous abuse from foot traffic.
- Won't tear apart when pulled or placed under equipment.
- Product absorbs water, oil, diesel, gas, coolants, cutting fluids, hydraulic fluids, vegetable oil, acetone, turpentine, and more.

Product Solutions: *Slipfyter by Spilfyter*

Maintaining Safe Walkways – Traction Matting




SPILFYTER 34"X100' SLIPFYTER™ UNIVERSAL MEDIUM WEIGHT TRACTION RUG

Item No. STM-9700GRY

Features & Benefits:

- Slipfyter™ Traction Rugs are an easy, durable solution to combat slips, trips & falls in a variety of locations.
- Rugs withstand heavy foot and vehicle traffic, to include fork trucks.
- The bottom layer sticks to the ground/surface using Cling technology.
- Simply peel rugs up and re-position as needed.
- Durable top layer can be vacuumed, swept with broom or mopped - allowing it to stay in use longer.
- Easy to use: roll out continuous walk-off coverage for entrances and walkways with no gaps, ripples or overlaps that can be slip, trip or fall hazards.
- ADA compliant for wheelchairs and walkers.
- Only a fraction of the weight of rubber-backed mats: no more back strain when you change your mats.
- Create custom-sized rugs for transition areas and problem spots where leaks or spills may be present.
- Absorbs a wide variety of oil and water-based spills.

EPA 40 CFR: Protection of Environment

- 40 CFR Requirements Relating to Spill Prevention & Response:
  - **40 CFR 112: Oil Pollution Prevention**
    - Facilities Should Have Appropriate Containment to Prevent Discharge Oil from Reaching a Navigable Water (SPCC Plan)
    - https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-112
  - **40 CFR 263: Standards Applicable to Transporters of Hazardous Waste**
    - In the event of a discharge of hazardous waste during transportation, the transporter must take appropriate immediate action to protect human health and the environment
    - https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-263
  - **40 CFR 264: Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities**
    - Owners Must Establish for Their Facilities Standards for Hazardous Waste Treatment, Storage & Disposal
    - https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-264

Spill Prevention, Control, & Countermeasure (SPCC)

- Purpose of SPCC rule is to help facilities prevent a discharge of oil into navigable waters or adjoining shorelines.
- Requires facilities to develop, maintain, and implement an oil spill prevention plan, called an SPCC Plan.
- These Plans help facilities prevent oil spill, as well as control a spill should one occur.

- SPCC Plan Rule Overview
  - What is it?
  - Who's required to have a plan?
  - Plan Elements

SPCC Rule Overview

- Oil Pollution Prevention regulation (40 CFR part 112)

https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-112

- Criteria
  - Stores, transfers, uses or consumes oil or oil products, such as diesel fuel, gasoline, lube oil, hydraulic oil, adjuvant oil, crop oil, vegetable oil or animal fat
  - Facilities that store > 1,320 gallons of oil in above ground containers (typically drums and totes) or > 42,000 gallons in completely buried containers
  - Facilities that have a “reasonable expectation of an oil or discharge” to water
- Reasonable Discharge
  - Determined by Company based on geographical & location aspects of facility
  - Consider proximity to water, land contour, drainage
  - Exclude secondary containment around tanks & impoundments in determination

SPCC Plan Elements

- Prepare and implement an SPCC plan that outlines equipment and procedures to prevent and respond to an oil spill.
  - Facilities up to 10,000 gallons can self-certify their plans
  - Facilities with more > 10,000 gallons requires a Professional Engineer (PE) to certify
- Containers (tanks, totes, drums) required to have sized secondary containment & overfill prevention
  - Secondary containment system must have sufficient capacity to contain at least 10% of the total volume of the primary containers or 100% of the volume of the largest container, **whichever is greater**
  - ULTRATECH secondary containment product solutions:

  https://spillcontainment.com/categories/spill-containment/

Product Solution: *Secondary Containment*

Spill Containment Pallets

- Ideal solution for indoor drum storage
- Reminder: EPA standard requires 10% of total volume of the primary containers or 100% of the volume of the largest container, **whichever is greater**

Part #	Model	Dimensions in. (mm)	Grating Surface in. (mm)	Weight Capacity UDL lbs. (kg)	Containment Capacity gal. (L)	Weight lbs. (kg)
9631	P4, With Drain	62 x 62 x 8.8 (1574.8 x 1574.8 x 222.3)	52 x 52 (1320.8 x 1320.8)	9000 (4082.3)	75 (283.9)	140 (63.5)

Product Solution: *Secondary Containment*

Hardtop Spill Pallets

- Ideal solution for outdoor drum storage
- Drums and collection sump remain clean and dry free of rainwater, debris and other contaminants
- Large, 66-gallon containment capacity meets EPA and SPCC Spill Containment Regulations

Part #	Model	Dimensions in. (mm)	Grating Surface in. (mm)	Weight Capacity UDL lbs. (kg)	Containment Capacity gal. (L)	Weight lbs. (kg)
1081	P4 Model With Drain	57 x 54 x 64.5 (1447.8 x 1371.6 x 1638.3)	48 x 48 (1219.2 x 1219.2)	6000 (2721.6)	66 (249.8)	226 (102.5)

DOT 49 CFR: Transportation

- 49 CFR 173: Shippers – General Requirements for Shipments & Packaging

Salvage drums. Packages of hazardous materials that are damaged, defective, or leaking; packages found to be not conforming to the requirements of this subchapter after having been placed in transportation; and, hazardous materials that have spilled or leaked may be placed in a metal or plastic removable head salvage drum that is compatible with the lading and shipped for repackaging or disposal under the following conditions:

(1) Except as provided in paragraph (c)(7) of this section, the drum must be a UN 1A2, 1B2, 1N2 or 1H2 tested and marked for Packing Group III or higher performance standards for liquids or solids and a leakproofness test of 20 kPa (3 psig). Alternatively, a drum manufactured and marked prior to October 1, 1993 as a salvage drum, in accordance with the provisions of this section in effect on September 30, 1991, is authorized. Capacity of the drum may not exceed 450 L (119 gallons).

(2) Each drum shall be provided when necessary with sufficient cushioning and absorption material to prevent excessive shifting of the damaged package and to eliminate the presence of any free liquid at the time the salvage drum is closed. All cushioning and absorbent material used in the drum must be compatible with the hazardous material.

Product Solution: *Spilfyter Overpack Drum Spill Kit*

SPILFYTER UNIVERSAL 95 GALLON OVERPACK DRUM SPILL KIT

Item No. 450095

Features & Benefits:

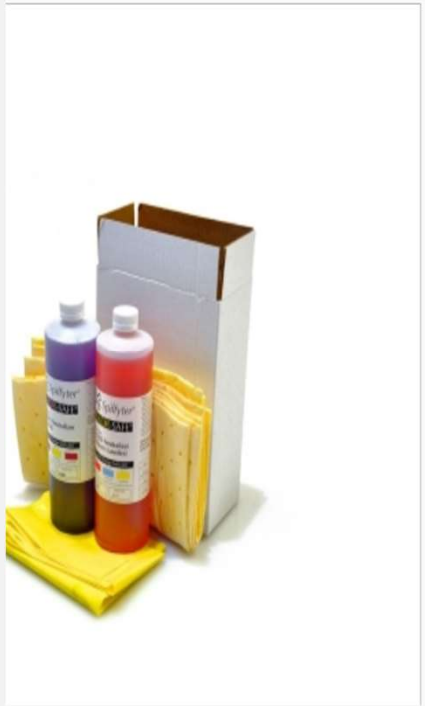
- Be prepared when that spill happens
- Filled with universal sorbents to clean up all liquids
- Features a 95 gallon UN/DOT OP drum with lid
- Designed for large spills
- Re-purpose or refill the drum once it's used

Kit Contents:

- (40) 3”x4’ Socks
- (200) Universal Pads
- (5) 18”x18" Pillows
- (6) 3”x10’ Socks
- (5) Disposal Bags & Twist Ties
- (2 pr.) Nitrile Gloves
- (1 pr.) Splash Goggles

Product Solution: *Spilfyter Vehicle Bag Spill Kits*

Universal Spill Kit + Neutralizer



SPILFYTER GRAB & GO® ACID AND BASE NEUTRALIZING MINI SPILL KIT

Item No. 271340

Features & Benefits:

- KOLOR-SAFE Mini Acid & Base Neutralizing Combo Spill Kit eliminates guesswork when neutralizing aggressive spills.
- The color change process lets you know when chemicals are safe to handle for final clean-up and disposal.

Kit Contents:

- (1) Quart Bottle Liquid Acid Neutralizer
- (1) Quart Bottle Liquid Base/Alkaline Neutralizer
- (5) 12" x 12" Hazmat Pads
- (1) Disposal Bag and Twist Tie

Steps to Respond to Workplace Spill

1. Assessing Risk
2. Protecting Yourself by Choosing the Right PPE
3. Stop the Leak or Spill
4. Contain the Spill
5. Clean the Spill
6. Decontamination
7. Debrief & Report
8. Refill Spill Kit Materials (Prepare for next Spill)

Let our team at FyterTech assist with building your spill prevention and response program!

Thank you!

Please reach out!

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