

Introduction

- ▶ Hazards exist in every workplace, and employers have a responsibility to warn their employees of these hazards.
- ▶ One of the easiest ways to accomplish this is with accident prevention signs.
- ▶ Two agencies cover accident prevention signs. (OSHA, and ANSI)
- ▶ OSHA 29 CFR 1926.200

SAFETY SIGNS PREVENT ACCIDENTS



- ▶ OSHA has the following signs:
- ▶ Danger Signs
- ▶ Caution Signs
- ▶ Exit Signs
- ▶ Safety Instruction Signs
- ▶ Directional Signs
- ▶ Traffic Signs
- ▶ OSHA requires that signs be designed with rounded corners and must be free of sharp edges.

Danger Signs



- ▶ Indicate immediate danger and that special precautions are necessary.
- ▶ OSHA also specifies that the red, black and white colors used for Danger signs.

Danger Signs 1926.200(b)



**AUTHORIZED
PERSONNEL ONLY**

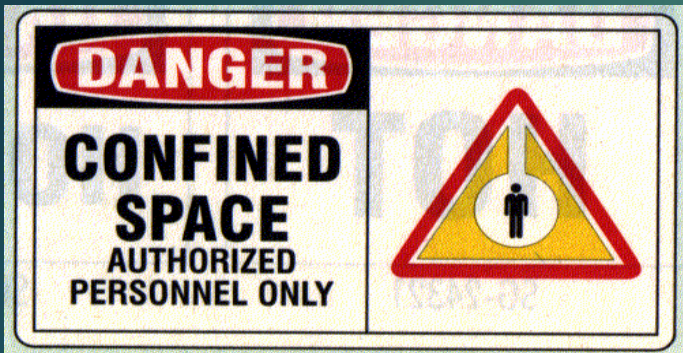
- ▶ (b)(1) Used only where immediate danger is present that could result in death or serious injury
- ▶ Removed or covered when hazard no longer exists

Danger Signs 1926.200(b)

- ▶ (b)(2) Danger signs shall have red as the predominating color for the upper panel with; black outline on the border; and white lower panel for additional wording



Danger Signs



Caution Signs



- ▶ Warn against potential hazards or caution against unsafe practice.
- ▶ OSHA specifies that the standard color for Caution signs shall have a yellow background black panel and yellow letters.
- ▶ All letters used against the yellow background shall be black.

Caution Signs 1926.200(c)



- ▶ (1) Caution Signs shall be used to caution against unsafe practices
- ▶ (2) Shall have yellow as the predominate color; black upper panel/border; and yellow lower panel

Caution Signs



Exit Signs

1. Exit signs, when required, shall be lettered in legible red letters, not less than 6 inches (15 cm) high, on white field and the principal stroke of the letters shall be at least $\frac{3}{4}$ inch in width.



Exit Signs-1926.200(d)



- ▶ **Must have legible red letters (six inches high)**
- ▶ **White field**
- ▶ **Stroke of letters must be .75 inch wide**

Safety Instruction Signs



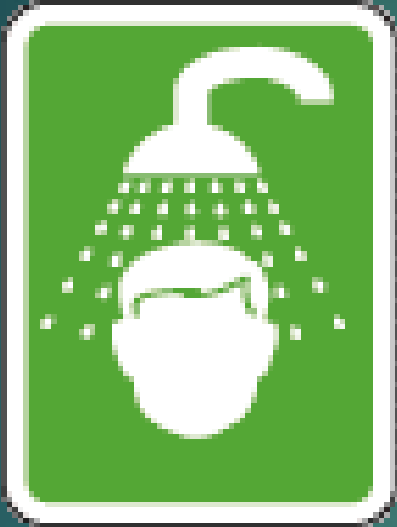
- ▶ Used where there is a need for general instructions and suggestions relative to safety measures.
- ▶ OSHA specifies that the standard color for Instruction signs shall be a white background, green panel and white letters.

Safety Instruction Sign 1926.200(e)

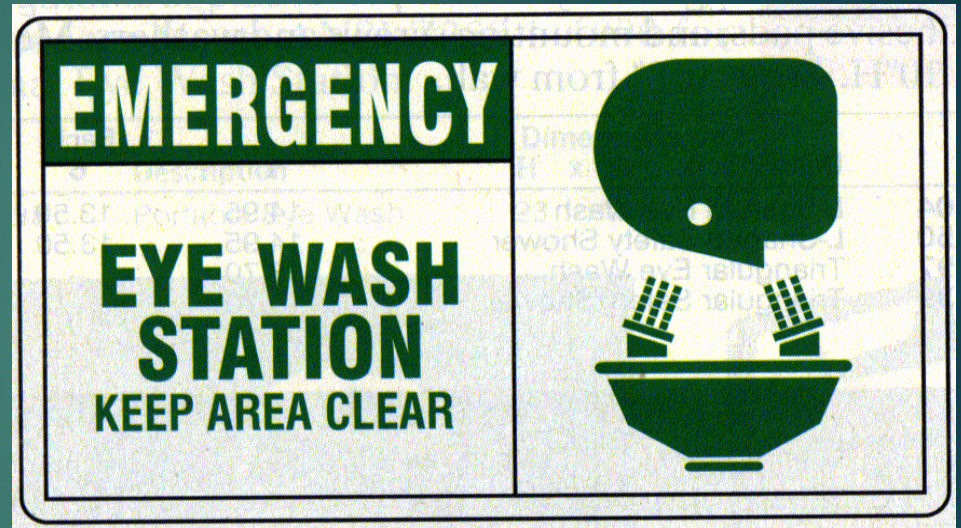


- ▶ Safety instruction signs, when used, shall be white with green upper panel with white letters to convey principal message all other letters in black

Safety Instruction Signs



**Work Safe
Advisory**



Directional Signs

- ▶ Directional signs, other than automotive traffic signs specified in the paragraph below, shall be white with black panel and a white directional symbol.
- ▶ Any additional wording on the sign shall be black letters on the white background.

Traffic Signs

- ▶ Construction areas shall be posted with legible traffic signs at points of hazard.
- ▶ All traffic control signs or devices used for protection of construction workers shall conform to American National Standards Institute ANSI D6.1-1971, Manual on Uniform Traffic Control Devices for Streets and Highways.



Traffic Signs-1926.200(g)



- ▶ (1) Construction areas shall be posted with legible traffic signs at point of hazard
- ▶ (2) All traffic control signs or devices used for the protection of workers must conform with MUTCD for Streets and Highways
- ▶ Changes effective December 2002.

Traffic Signs-1926.200(g)

- ▶ OSHA currently issued a final notice on September 12, 2002 that all signals, signs, and barricades used to protect highway workers are to comply with:
 - ▶ **Part VI of the 1988 MUTCD with 1993 revisions or the Millennium Edition of MUTCD (instead of the current ANSI D6.1-1971 standard/1971 MUTCD).**

What is the MUTCD?

- ▶ Defines the standards used by road managers nationwide to install and maintain traffic control devices on all streets and highways
- ▶ Set forth by Federal Highway Administration
- ▶ **Manual of Uniform Traffic Control Devices (MUTCD)**

Elements of Work Zone Safety

- ▶ The main provisions that need to be addressed in work zone safety include:
- ▶ High-visibility clothing
- ▶ Traffic control devices
- ▶ Work-zone protection plans
- ▶ Law-enforcement and public awareness
- ▶ Worker training

Training of Workers

- ▶ All workers should be trained in how to reduce vulnerability when working near traffic.
- ▶ Workers having specific traffic control responsibility should be trained in temporary traffic control techniques, devices, and placement.

High Visibility Clothing

- ▶ Not specifically mentioned in Protective Equipment (PPE) standards (1910.132 & 1926.95)
- ▶ No specific requirement in MUTCD
 - ▶ **only references requirement for flag person, suggests use by others**

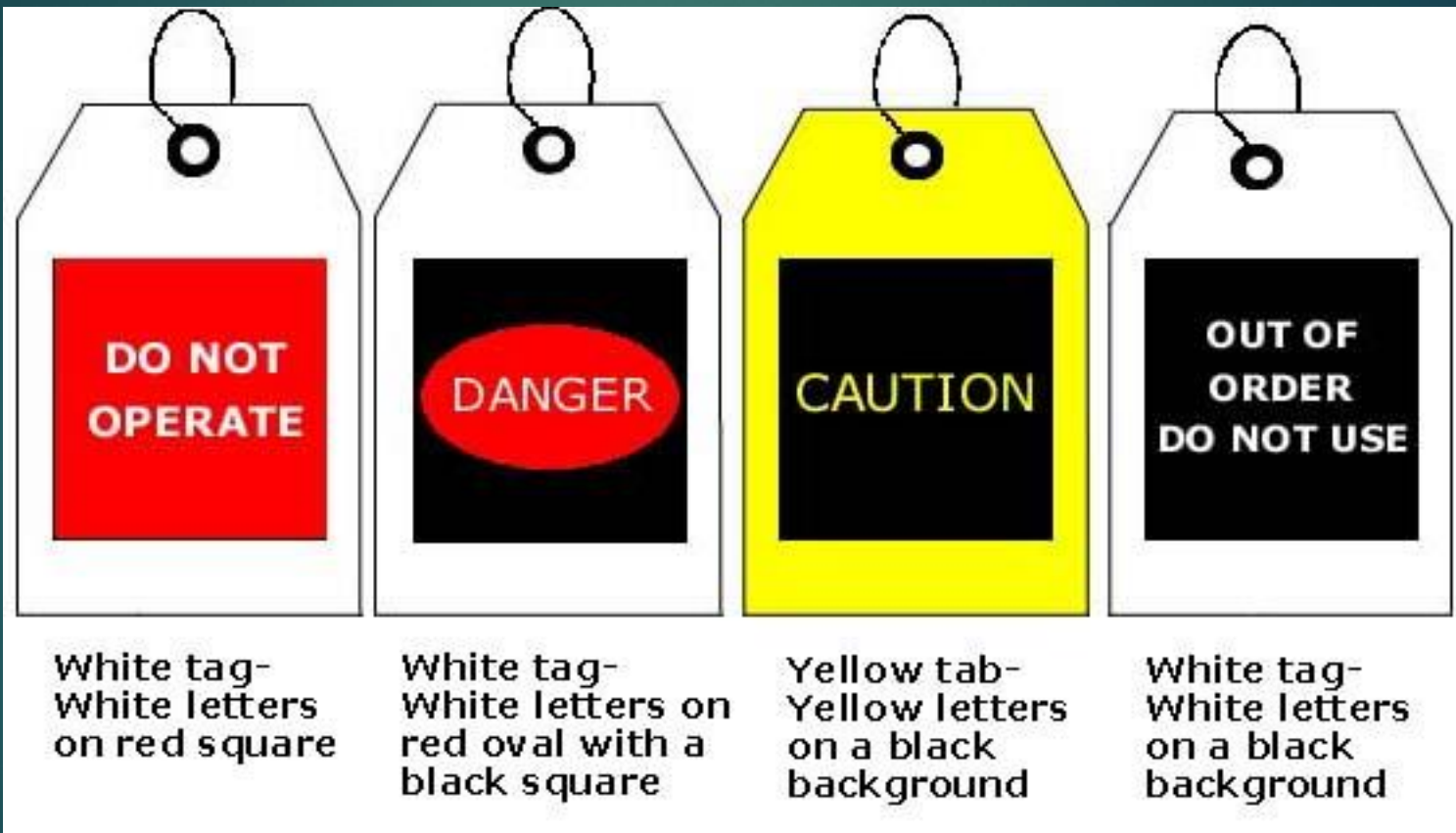
Design Principles

- ▶ Must have 360 degree visibility!
- ▶ Orange, red-orange, or yellow-green fluorescent background
- ▶ Higher hazard class requires more area of background & reflective trim

Accident Prevention Tags

- ▶ Accident prevention tags shall be used as a temporary means of warning employees of an existing hazard, such as defective tools, equipment, etc.
- ▶ They shall not be used in place of, or as a substitute for, accident prevention signs.
- ▶ Specifications for accident prevention tags similar to those shown below shall apply.

Examples of Accident Prevention Tags



Accident Prevention Tags

1926.200(h)(2)

Background	Safety Colors	Copy Specification
White	Red	Do not Operate
White	Black and Red	Danger
Yellow	Black	Caution
White	Black	Out of Order

Additional Rules

- ▶ **American National Standards Institute ANSI Z35.1-1968, Specifications for Accident Prevention Signs, and ANSI Z35.2-1968, Specifications for Accident Prevention Tags, contain rules which are additional to the rules prescribed in this section.**
- ▶ **The employer shall comply with these ANSI standards with respect to rules not specifically prescribed in this subpart.**

Signaling

- ▶ 1- Flag Men
- ▶ Crane and hoist Signals

Flagmen

- ▶ When operations are such that signs, signals, and barricades do not provide the necessary protection on or adjacent to a highway or street, flagmen or other appropriate traffic controls shall be provided.

KNOW YOUR SAFETY SIGNS

The 4 main categories are

PROHIBITION

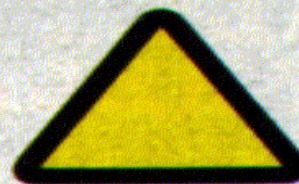
Stop



Do Not Do

WARNING

Caution



Hazard

MANDATORY

Obey



You Must Do

SAFE CONDITION

Where To Go

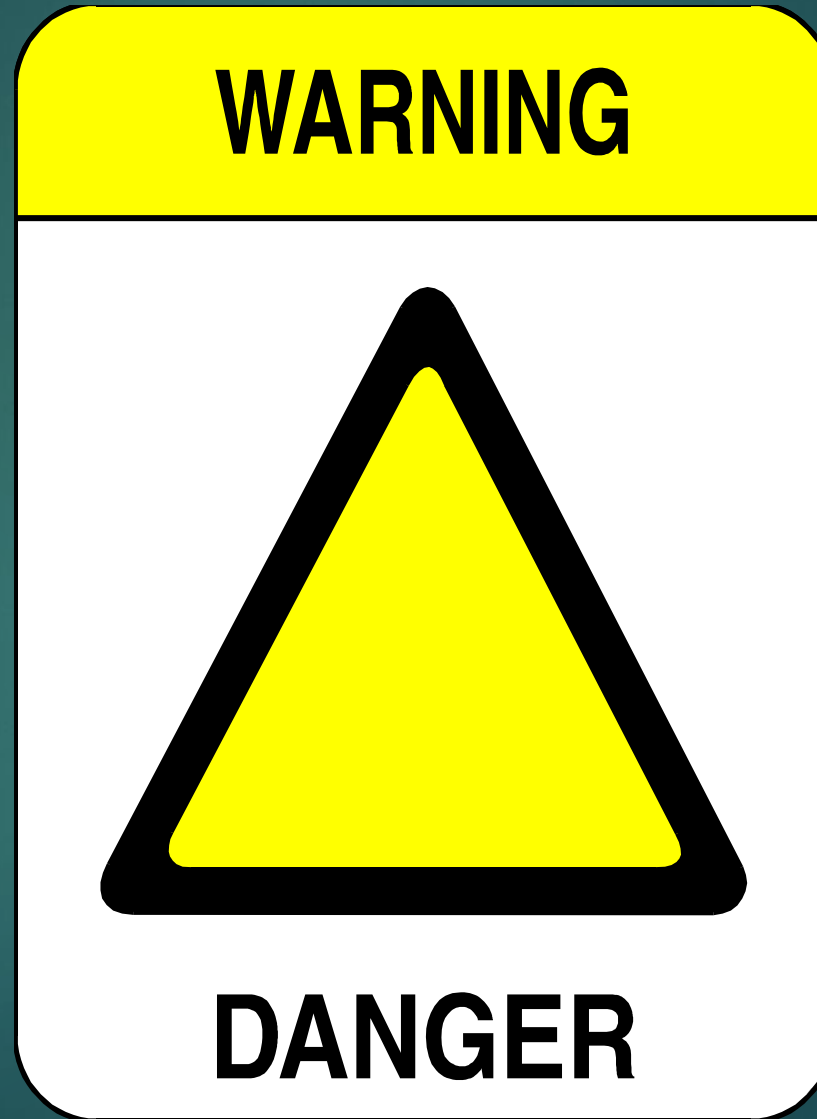


Emergency information

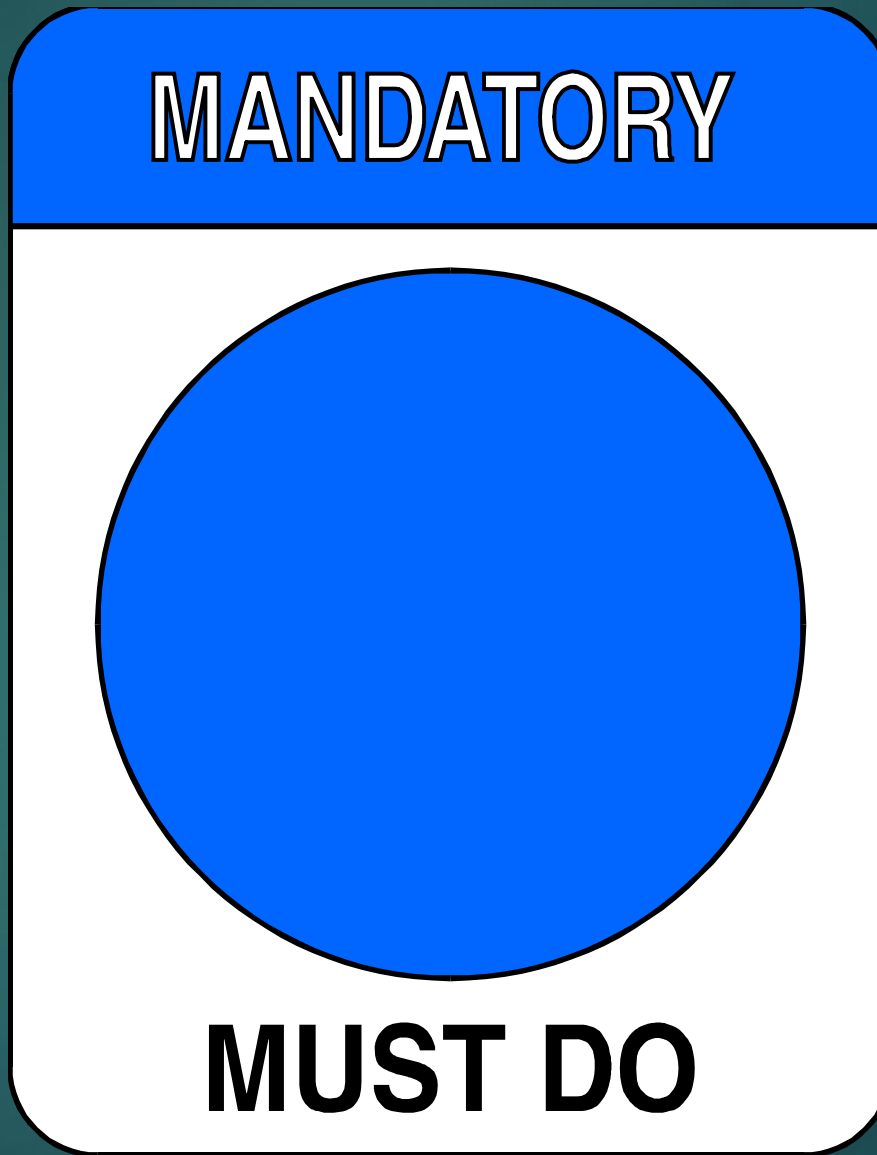
Red - Prohibition



Yellow - Warning



Blue - Mandatory



Green – Safe Condition

