

Department of the Army
Pamphlet 385-11

Safety

Army Guidelines for Safety Color Codes, Signs, Tags, and Markings

Headquarters
Department of the Army
Washington, DC
25 June 2013

UNCLASSIFIED

SUMMARY

DA PAM 385-11

Army Guidelines for Safety Color Codes, Signs, Tags, and Markings

This new Department of the Army pamphlet, dated 25 June 2013--

- o Sets uniformity of color codes used on safety signs, labels, tags, and markings for military, industrial, and construction operations existing on Army installations (paras 2-1 and 2-2).
- o Introduces guidelines for safety color codes for signs, tags, and markings in Army facilities and operations (throughout).
- o Establishes Army criteria for safety colors that will alert and inform persons to take precautionary action or other appropriate action in the presence of hazards (throughout).

Safety

Army Guidelines for Safety Color Codes, Signs, Tags, and Markings

By Order of the Secretary of the Army:

RAYMOND T. ODIERNO
General, United States Army
Chief of Staff

Official:



GERALD B. O'KEEFE
Acting Administrative Assistant
to the Secretary of the Army

History. This publication is a new Department of the Army pamphlet.

Summary. This pamphlet prescribes Army guidelines and criteria for safety color code markings, signs, and tags to warn Army personnel and personnel visiting Army facilities against potential hazards. Guidelines were developed from the Title 29, Code of Federal Regulations,

Section 1910.141 et seq. (General Environmental Controls) and American National Standards Institute Z535 Standards 2011.

Applicability. This pamphlet applies to the active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve, unless otherwise stated. It also applies to Army civilian employees, the U.S. Army Corps of Engineers and Civil Works activities and tenants, and volunteers in accordance with Title 10, United States Code, Section 1588 and AR 608–1.

Proponent and exception authority. The proponent for this pamphlet is the Director of the Army Staff. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency, in the grade of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification

that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forwarded through their higher headquarters to the policy proponent. Refer to AR 25–30 for specific guidance.

Suggested improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Headquarters, Department of the Army, Director of the Army Staff (DACS–SF), 9351 Hall Road, Building 1456, Fort Belvoir, VA 22060–5860.

Distribution. This pamphlet is available in electronic media only and is intended for command levels A, B, C, D, and E for the active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

Contents (Listed by paragraph and page number)

Chapter 1

Introduction, page 1

Purpose • 1–1, page 1

General • 1–2, page 1

Engineering or administrative controls • 1–3, page 1

Illumination • 1–4, page 1

Optimum visibility • 1–5, page 1

Training and notification • 1–6, page 1

Chapter 2

Specifications for Accident Prevention Signs, page 1

Safety color coding • 2–1, page 1

Safety sign colors • 2–2, page 1

Hazard classifications of signs • 2–3, page 2

Selection of appropriate hazard sign (risk estimation) • 2–4, page 2

Wording of signs • 2–5, page 2

Contents—Continued

Danger signs • 2-6, *page 3*
Caution signs • 2-7, *page 4*
Safety instruction signs • 2-8, *page 5*
Safety symbols • 2-9, *page 6*
Signs for slow-moving vehicles • 2-10, *page 7*
Placement of signs • 2-11, *page 8*
Hearing protection signs, labels, and decals • 2-12, *page 9*
Vision protection signs, tags, and decals • 2-13, *page 9*
Accident prevention tags and barricade tapes • 2-14, *page 9*

Chapter 3

Standards for Safety Markings, *page 11*

Use of color markings • 3-1, *page 11*
Use of paint • 3-2, *page 11*
Red markings • 3-3, *page 12*
Yellow markings • 3-4, *page 12*
Green markings • 3-5, *page 13*
Black, white, and yellow markings • 3-6, *page 13*
Blue markings • 3-7, *page 13*
Orange markings • 3-8, *page 13*

Chapter 4

Specific Types of Army Signs, *page 14*

Street and highway markings • 4-1, *page 14*
Markings for pipelines and compressed-gas cylinders • 4-2, *page 14*
Markings for power conductors • 4-3, *page 14*
Biological markings • 4-4, *page 14*
Ammunition and explosive markings • 4-5, *page 14*
Range markings • 4-6, *page 14*
Chemical agent markings • 4-7, *page 14*
Radiation markings • 4-8, *page 14*

Appendix A. References, *page 15*

Table List

Table 2-1: Examples of wording for danger signs, *page 4*
Table 2-2: Examples of wording for caution signs, *page 5*
Table 2-3: Examples of wording for safety instruction signs, *page 6*
Table 2-4: Placement of signs, *page 8*
Table 3-1: Paint color numbers from Federal Standard 595A, *page 11*

Figure List

Figure 2-1: Example danger sign, *page 3*
Figure 2-2: Example caution sign, *page 4*
Figure 2-3: Example safety instruction sign, *page 5*
Figure 2-4: Examples of safety symbols, *page 7*
Figure 2-5: Example of slow-moving vehicle symbol, *page 8*
Figure 2-6: Examples of safety tags, *page 11*

Glossary

Chapter 1 Introduction

1-1. Purpose

The intent of this pamphlet is to establish an Army standard for safety colors that will alert and inform persons to take precautionary action or other appropriate action in the presence of hazards. The specifications for signs and tags apply to the design, application, and use of signs or symbols intended to indicate and/or define specific hazards of a nature, such that failure to designate them may lead to accidental injury or property damage. These specifications are intended to cover all safety signs, except those designed for streets, highways, railroads, and marine regulations. This pamphlet does not apply to bulletin boards or safety posters.

1-2. General

Color codes used on safety signs, labels, and tags, as well as for the identification and location of fire extinguishers, first aid kits, traffic aisle ways, changes in elevation, and tripping hazards, and so forth, have been developed in the past by a large number of industrial firms and other organizations. Uniformity of color codes used on safety signs, labels, and tags can be a major issue with the various number of military, industrial, and construction operations existing on Army installations. As a result, spontaneity of action in times of emergency can be lost, particularly by employees who have moved from one organization to another, when each has a different system. Too many colors appearing simultaneously in the visual field can be both confusing and fatiguing. All new signs and replacements of old signs shall be in accordance with this pamphlet.

1-3. Engineering or administrative controls

This pamphlet is not a substitute for engineering or administrative controls, including training, to eliminate identifiable hazards.

1-4. Illumination

Colored safety signs equipped with illumination devices shall be lighted at a level where the color is not distorted, and the precautionary message is conveyed.

1-5. Optimum visibility

To ensure optimum visibility, colors selected for safety signs should have maximum color contrast, especially lightness contrast. Likewise, contrast must be achieved between the sign and its visual environment. Thus, dark colors (red, brown, green, blue, and purple) should be used with white letters, while light colors (orange and yellow) are better seen contrasted with black.

1-6. Training and notification

All supervisors will ensure personnel working or entering in their area of responsibility are briefed/trained on what hazards and controls are in their work area and what precautions should be taken.

Chapter 2 Specifications for Accident Prevention Signs

2-1. Safety color coding

The below colors are intended for use on safety signs, symbols, and safety messages in collateral materials, as set forth by the American National Standards Institute (ANSI) Z535 series standards.

- a.* Safety Red identifies danger and stop.
- b.* Safety Orange designates warning.
- c.* Safety Yellow designates caution. Solid yellow, yellow and black stripes, or yellow and black checkers must be used for maximum contrast with particular background.
- d.* Safety Green designates safety, emergency egress, and the location of first aid and safety equipment.
- e.* Safety Blue identifies safety information used on informational signs and bulletin boards.
- f.* Safety Purple is not yet assigned.
- g.* Safety Gray is not yet assigned.
- h.* Safety Black, Safety White, Safety Yellow, or combinations of Safety Black with Safety White or Safety Yellow, are used to designate traffic or housekeeping markings.

2-2. Safety sign colors

- a.* Standard safety colors shall comply with ANSI Z535.1.

b. Signal word panel colors—

- (1) DANGER. Safety White letters on a Safety Red background.
- (2) WARNING. Safety Black letters on a Safety Orange background.
- (3) CAUTION. Safety Black letters on a Safety Yellow background.
- (4) NOTICE. Italicized Safety White letters on a Safety Blue background.
- (5) SAFETY INSTRUCTIONS. Safety White letters on a Safety Green background.

2-3. Hazard classifications of signs

Hazard-alerting signs are classified according to the relative seriousness of the hazardous situation. The classification is based on the probability of being injured, if the hazard is not avoided, and on the severity of the resulting injury. For hazard-alerting signs, there are four hazard classifications that are denoted by the signal words “DANGER,” “WARNING,” and “CAUTION.”

a. DANGER indicates an immediately hazardous situation which, if not avoided, will result in death or serious injury. DANGER is limited to the most extreme situations.

b. WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

c. CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. CAUTION may also be used to alert against unsafe practices.

d. CAUTION used without the safety alert symbol, indicates a potentially hazardous situation which, if not avoided, may result in property damage.

e. NOTICE indicates a statement of company policy, as the message relates directly or indirectly to the safety of personnel or protection of property.

f. GENERAL SAFETY indicates general instructions relative to safe work practices, reminders of proper safety procedures, and the location of safety equipment.

g. FIRE SAFETY indicates the location of emergency firefighting equipment.

h. The other two classifications are DIRECTIONAL ARROW SIGNS and SPECIAL SIGNS.

i. In accordance with ANSI Z535.2, standard safety alert symbols will be used in conjunction with the signal words DANGER, WARNING, or CAUTION.

2-4. Selection of appropriate hazard sign (risk estimation)

Selection of the appropriate hazard sign involves considering the probability and severity of outcomes that can result from a hazardous situation and combining these estimates to determine the risk. The risk management process prescribed in DA Pam 385-30 will be used to determine the appropriate hazard sign.

2-5. Wording of signs

Ensure that the wording on all signs—

a. Is concise and easy to read. Lettering shall be of a size that enables a person with normal vision, including corrected vision, to read the safety sign message panel text at a safe viewing distance from the hazard.

b. Contains enough information to be easily understood.

c. Is designed for the message to be carried in the form of a picture, when appropriate.

d. Is positive rather than negative, when possible. For example, “Wear rubber gloves when handling” is preferable to “Do not handle without rubber gloves.”

e. Signal words shall be in sans serif letters in upper case only. The signal word NOTICE shall appear in italicized sans serif letters in upper case only.

f. Message panel lettering should be a combination of upper and lower case letters. Upper case only lettering may be used for short messages or emphasis of individual words.

g. Determination of safe viewing distance for the message panel text shall take into consideration a reasonable hazard avoidance reaction time.

h. Signal word letter height should be at least 50 percent greater than the height of a capital H in the majority of the message panel wording.

i. Shall be bilingual, where appropriate.

j. Message panel colors—

(1) Safety equipment location signs. Safety White letters on Safety Green background.

(2) Fire equipment location signs. Safety White on a red background.

(3) Safety alert symbol. Solid triangle portion shall be the same color as the signal word lettering, and the exclamation mark placed on a Safety Yellow triangle.

(4) Biological hazard. Fluorescent orange or orange-red, or predominately so, with lettering or symbols in a contrasting color.

(5) Hazard alerting, safety notice, and safety instruction signs. The message panel for hazard alerting, safety notice,

and safety instruction signs should have either Safety Black lettering on a Safety White background or Safety White lettering on a Safety Black background.

(6) Safety equipment location signs. The message panel for safety equipment location signs should have either Safety White letters on a Safety Green background or Safety Green or Safety Black letters on a Safety White background.

(7) Fire safety equipment location signs. The message panel for fire safety equipment locations signs shall have Safety White safety symbols on a Safety Red background or Safety Red symbols on a Safety White background.

(8) Symbol panel colors—

(a) Hazard alerting signs, safety notice signs, and safety instruction signs should have a Safety Black symbol on a Safety White background. Other colors may be used for safety symbol emphasis, such as Safety Red for fire, and so forth, or if surround shapes are used.

(b) Safety equipment location signs. Safety equipment location signs shall have Safety White safety symbols on a Safety Green background or Safety Green or Safety Black symbols on a white background.

(c) Fire equipment location signs. Fire equipment location signs shall have Safety White safety symbols on a Safety Red background or Safety Red symbols on a white background.

2-6. Danger signs

a. *Use.* Use a danger sign only when an immediate hazard exists. There must be no variations in the type or design of signs posted to warn of specific dangers. All personnel should be taught that danger signs indicate immediate danger, and special precautions are necessary.

b. *Design.* Paints with phosphorescent or retro-reflective content may be used when safety considerations justify the need for assuring visibility of signs in darkened areas or at night. Design danger signs as follows (see figure 2-1):

(1) Danger signs have a white background with the word DANGER appearing in white letters on a red oval. The red oval is placed inside a black rectangular panel. (A white line separating the outside edges of the red oval from the adjacent edge of the black panel may be used.)

(2) The black rectangular panel should be placed at the top of the sign. Wording on the sign should be in black letters on the white background.

(3) The size of the red oval containing the word DANGER, and the size of the letters used for the word DANGER, will vary with the outside dimensions of the sign.



Figure 2-1. Example danger sign

c. *Wording.* Danger signs will be worded to warn of specific dangers only. Keep sign wording as brief as possible, but convey all necessary information. The wording may include what the danger is, where it is, and how to avoid it (see table 2–1, for examples of wording).

Table 2–1
Examples of wording for danger signs

- DANGER - High Voltage (state maximum voltage, when greater than 500 volts)
 - DANGER - No Smoking, Matches, or Open Flame (see note)
 - DANGER - Men Working Above
 - DANGER - Keep Away From Transformer
 - DANGER - Eye Protection Required in This Area
 - DANGER - Crane Overhead
 - DANGER - Keep off Pole
 - DANGER - Use No Open Light-Flammable
 - DANGER - Artillery Firing in Progress
 - DANGER - Small Arms Firing in Progress
 - DANGER - Ammunition Dud Area
 - DANGER - Blasting
 - DANGER - Extremely Noise Hazardous Area-Both Plugs and Muffs Required
 - DANGER - Extreme Noise Hazardous-Both Plugs and Muffs Required When Operating
 - DANGER - Permit Required-Confined Space
-

2–7. Caution signs

a. *Use.* Use caution signs only to warn against potential hazards or to caution against unsafe practices. All personnel should be taught that a caution sign indicates a possible hazard against which proper precautions will be taken.

b. *Design.* Design caution signs as follows (see fig 2–2):

- (1) Caution signs have a yellow background. The word CAUTION appears in yellow letters on a black rectangular panel.
- (2) The black rectangular panel should be placed at the top of the sign.
- (3) The size of the black rectangular panel containing the word CAUTION, and the size of the letters used for the word CAUTION, vary with the outside dimensions of the sign.

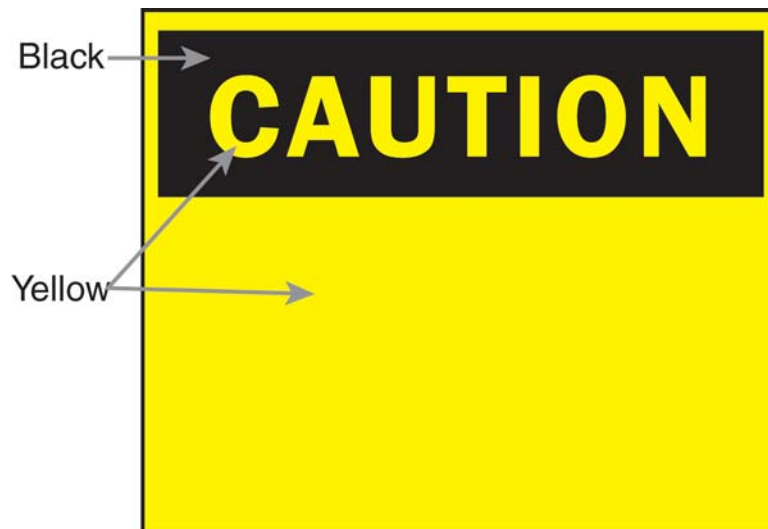


Figure 2–2. Example caution sign

c. *Wording.* Caution signs will be worded to warn of possible dangers or unsafe practices (see table 2–2, for examples of wording).

Table 2–2
Examples of wording for caution signs

CAUTION - Keep This Door Closed
CAUTION - Electric Trucks, Go Slow
CAUTION - Keep This Space Clear
CAUTION - Stop Machinery to Clean, Oil, or Repair
CAUTION - Wear Snug-Fitting Clothing While Operating This Machine
CAUTION - Keep Aisles Clear
CAUTION - Flammable-No Smoking Within 50 Feet
CAUTION - Gasoline Will Not Be Used as a Cleaning Fluid
CAUTION - Close Clearance
CAUTION - Watch Your Step
CAUTION - Electric Fence
CAUTION - Noise Hazardous Area-Hearing Protection Required While Equipment is Running
CAUTION - Hearing Protection Required Beyond This Point
CAUTION - Noise Hazardous Equipment-Hearing Protection Required When Operating
CAUTION - Noise Hazardous Area-Hearing Protection Required Within ____ Feet
CAUTION - Noise Hazardous Equipment-Hearing Protection Required Within ____ Feet
CAUTION - Ultraviolet Light-Wear Eye Protection

2–8. Safety instruction signs

- a. *Use.* Use safety instruction signs, when there is a need for general instructions and suggestions relating to safety.
- b. *Design.* Design safety instruction signs as follows (see fig 2–3):
- (1) Safety instruction signs have a white background. Words, such as THINK or BE CAREFUL, are in white letters on a green rectangular panel.
 - (2) The green panel should be placed at the top of the sign.
 - (3) The sign wording is placed below the panel in black letters on a white background.
 - (4) The size of the green panel and the size of the letters for the word or words vary with the outside dimensions of the sign (see fig 2–3).

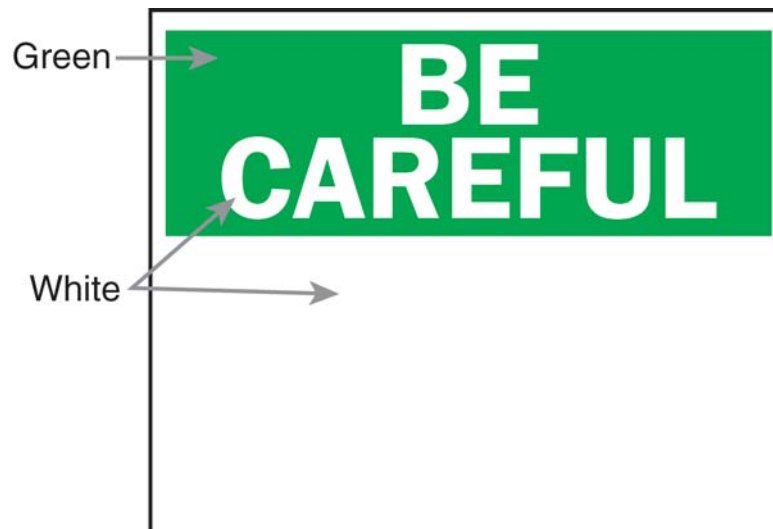


Figure 2–3. Example safety instruction sign

c. *Wording.* Safety instruction signs should be worded to provide information relating to general safe practices (see table 2–3, for examples of wording).

Table 2–3
Examples of wording for safety instruction signs

Report All Injuries to the First Aid Room at Once
Walk, Don't Run- Avoid Injury
Report All Injuries No Matter How Slight
Make Your Workplace Safe Before Starting the Job
Report All Unsafe Conditions to Your Foreman
Keep This Plant Clean and Safe
Lock Out Controls Before Making Electrical Repairs
Number of Consecutive Days Without a Disabling Injury (___)
Three Causes of Injury: I Didn't Look, I Didn't Ask, I Didn't Listen

2–9. Safety symbols

a. *General.* Safety symbols should be used, whenever practical to do so. A safety symbol is a configuration consisting of an image, with or without a surround shape, which conveys a message without the use of words. It may represent a hazard, a hazardous situation, a precaution to avoid a hazard, a result of not avoiding a hazard, or any combination of these messages. There are four types of safety symbols that communicate different messages—hazard alerting, prohibition, mandatory actions, and information (see fig 2–4 for examples).

b. *Hazard alert symbol.* This is the general warning symbol. It is used to alert the user to potential hazards. All safety messages that follow this symbol shall be obeyed to avoid possible harm.

c. *Prohibition symbol.* This type of safety symbol conveys actions that should not be taken or should be stopped. For prohibition, use of the surround shape is mandatory.

d. *Mandatory symbol.* This type of safety symbol conveys actions that should be taken to avoid hazards. If a surround shape is desired, the symbol should consist of a white image within a solid Safety Blue circular surround shape.

e. *Information symbol.* This type of safety symbol is generally used on general safety or fire safety signs to convey equipment location, egress, permitted actions, and fire equipment location.

f. *Symbol and message.* Two panel signs can be used to display both the symbol and the message. When symbols are used with a word message, safety symbols shall be compatible with the word message. A symbol may only be used to substitute for a portion or all of a word message, if it has been demonstrated to be satisfactorily comprehended, or if there is a means (for example, instructions, training materials, manuals, and so forth) to inform personnel of the symbol's meaning.




Symbol	Usage
 Hazard Alert	<p>This is the general warning symbol. It is used to alert the user to potential hazards. All safety messages that follow this symbol shall be obeyed to avoid possible harm.</p>
 Prohibition	<p>This type of safety symbol conveys actions that should not be taken or should be stopped. For prohibition, use of the surround shape is mandatory.</p>
 Mandatory	<p>This type of safety symbol conveys actions that should be taken to avoid hazards. If a surround shape is desired, the symbol should consist of a white image within a solid safety blue circular surround shape.</p>
 Information	<p>This type of safety symbol is generally used on general safety or fire safety signs to convey equipment location, egress, permitted actions and fire equipment location.</p>

Figure 2-4. Examples of safety symbols

2-10. Signs for slow-moving vehicles

a. Use. Signs or emblems to identify vehicles that, by design, move slowly (25 mph or less) on public roads and streets. These signs or emblems are neither a clearance marker for wide machinery, nor a replacement for required lighting or marking of slow-moving vehicles.

b. Design. These signs consist of a fluorescent, yellow-orange triangle with a dark, red, reflective border. The fluorescent triangle is a highly visible color for daylight exposure. The reflective border defines the shape of the fluorescent color in the daylight and creates a hollow, red triangle in the path of motor vehicle headlights at night. (Figure 2-5 is an example of a sign for a slow-moving vehicle.)

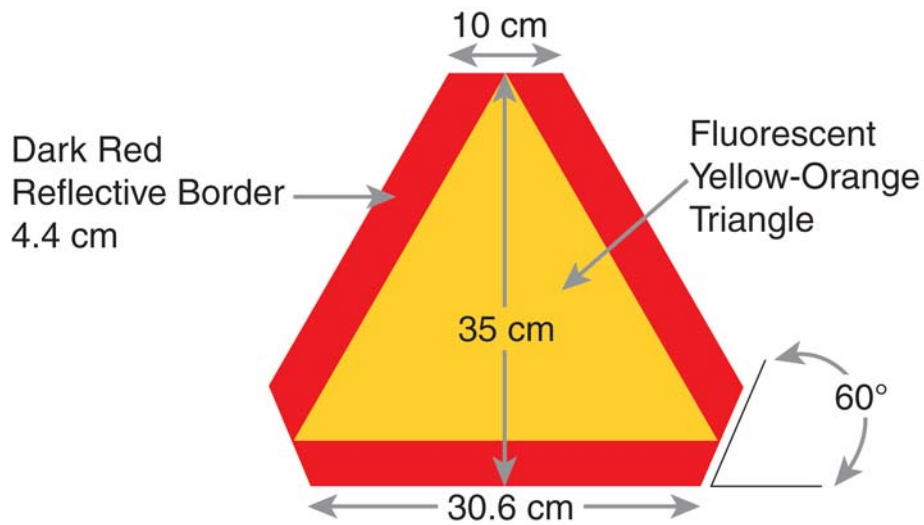


Figure 2-5. Example of slow-moving vehicle symbol

c. *Wording.* These signs will have no letters or words. Do not alter the pattern, sign dimensions, or the backing to permit advertising or other markings.

2-11. Placement of signs

a. Signs must be placed to alert and inform employees of hazards in sufficient time for the employees to avoid the hazard and take appropriate action. Employees should be able to see the sign in a safe viewing distance.

b. Signs must be placed so they are legible, do not create a distraction, and are not a hazard in themselves.

c. Safety signs shall not be located in areas where they may be removed by the motion of the hazardous device, or rendered ineffective by situational conditions of the hazard. These alerting devices shall not be blocked by moveable panels such as doors, windows, racks, gates, and so forth.

d. Safety signs shall be displayed with illumination, as needed, for adequate legibility under normal operating conditions. For situations other than normal operating conditions, such as emergency conditions, power failure, and so forth, where illumination may be interrupted, the sign should be made with photo luminescent and/or retro-reflective materials, and/or equipped with emergency lighting.

(1) DANGER indicates an immediately hazardous situation which, if not avoided, will result in death or serious injury.

(2) DANGER should be used sparingly, and only for those situations presenting the most serious hazards (see table 2-4).

**Table 2-4
Placement of signs**

Signal word letter height (inches)	Viewing distance (feet)
5.00	62.50
4.50	56.25
4.00	50.00
3.50	43.75
3.00	37.50
2.50	31.25
2.00	25.00
1.50	18.75
1.00	12.50
0.75	09.375
0.50	06.25
0.25	03.125

2-12. Hearing protection signs, labels, and decals

a. Use. To warn personnel of hazards associated with exposure to high-intensity noise and the need to wear hearing protection.

b. Posting.

(1) Noise hazardous areas must be posted as follows: Post entrance to, or periphery of, noise-hazardous areas (85 to 100 A-weighted decibel (dBA)) with appropriate CAUTION sign (see table 2-2 for sample wording). Post entrance to, or periphery of, extremely noise-hazardous areas (101 to 108 dBA) with the appropriate DANGER sign (see table 2-1 for sample wording).

(2) Noise-hazardous equipment must be posted as follows: Post noise-hazardous tools and equipment (85 to 100 dBA) with the appropriate CAUTION sign, label, or tag (see table 2-2 for sample wording). Post extremely noise-hazardous tools and equipment (101 to 140 dBA) with the appropriate DANGER sign, label, or tag (see table 2-1 for sample wording).

(3) Post all firing ranges and other impulse-noise areas (140 dBA and above) with appropriate DANGER signs. Indicate 140 dBP noise contours with applicable DANGER signs. For noise-hazardous areas or equipment that exceed 108 dBA or 165 dBP, consult the local installation medical authority for proper posting procedures. Daily exposure limits may be imposed. Also, hearing protection requirements for a particular piece of equipment may be defined in a Health Hazard Assessment Report, and these recommendations will be published in the user's documents (for example, technical guides and manuals).

c. Design.

(1) Hearing protection DANGER signs should conform to the specifications in figure 2-1.

(2) Hearing protection CAUTION signs should conform to the specifications in figure 2-2.

(3) Hearing protection CAUTION and DANGER tags will be self-adhesive vinyl. They should appear proportionately identical to corresponding signs.

(4) Hearing protection CAUTION and DANGER tags should follow criteria in Title 29, Code of Federal Regulations, Section 1910.145 (29 CFR 1910.145). Alternatively, CAUTION and DANGER labels may be affixed to a plain manila tag and used in place of a pre-printed tag.

d. Wording. Use wording on signs, labels, and tags, according to tables 2-1 and 2-2.

e. Pictures. The use of pictures or internationally recognized symbols on signs, labels, and tags is permitted, providing the intent of the message remains clear.

2-13. Vision protection signs, tags, and decals

a. Use. Use vision protection signs, tags, and decals to warn personnel of potential or actual vision hazards associated with machinery and equipment and to direct that appropriate protective measures be taken. Use warnings not only for physical hazards, but also for laser and high-intensity light sources such as carbon arc lights, ultraviolet sources, welding, and so forth.

b. Design. Similar to decal for hearing protection.

c. Wording and pictures. Signs may be CAUTION or DANGER, depending upon the risk. Use words and pictures appropriate to vision protection.

2-14. Accident prevention tags and barricade tapes

a. Use tags and barricade tape as a means to prevent accidental injury or illness to employees who are exposed to hazardous or potentially hazardous conditions, equipment, or operations that are out of the ordinary, unexpected, or not readily apparent. Tags and barricade tape should be used, until the identified hazard is eliminated, or the hazardous operation is completed. Tags and tape need not be used where signs, guarding, or other positive means of protection are being used.

b. All required tags and barricade tape shall meet the following criteria:

(1) Tags and barricade tape shall contain a signal word panel and a major message.

(a) The major message shall indicate the specific hazardous condition, the instruction to be communicated, or both.

(b) The signal word shall be readable at a minimum distance of five feet (1.52 meters) or such greater distance as warranted by the hazard.

(c) The tag's major message shall be presented in either pictographs, written text, or both.

(d) The signal word and the major message shall be concise and understandable to all employees who may be exposed to the identified hazard. The message may be supplemented or substituted by safety symbols in the safety symbol panel.

(e) All employees shall be informed as to the meaning of the various tags used throughout the workplace and what special precautions are necessary.

(f) Tags shall be affixed as close as safely possible to their respective hazards by a positive means, such as string, wire, or adhesive that prevents their loss or unintentional removal.

(2) The signal word shall be either DANGER, CAUTION, NOTICE, or SAFETY INSTRUCTIONS, or similar words.

(a) The word DANGER shall be in Safety White letters on a rectangular Safety Red background.

(b) The word WARNING shall be in Safety Black letters on a rectangular Safety Orange background.

(c) The word CAUTION shall be in Safety Black letters on a rectangular Safety Yellow background.

(d) The word NOTICE shall be in italicized Safety White letters on a Safety Blue background.

(e) The words SAFETY INSTRUCTIONS, or similar, shall be in Safety White letters on a rectangular Safety Green background.

(f) Danger tags shall be used in major hazard situations, where an immediate hazard presents a threat of death or serious injury to employees. Danger tags shall be used only in these situations.

(g) Caution tags shall be used in minor hazard situations, where a non-immediate or potential hazard or unsafe practice presents a lesser threat of employee injury. Caution tags shall be used only in these situations.

(h) Warning tags may be used to represent a hazard level between caution and danger, instead of the required caution tag, provided that they have a signal word of WARNING and appropriate major message.

c. A single tag or length of tape shall address one topic only. The signal word panel should be reproduced on both sides of the tag. A translated signal word panel may be used on the second side of bilingual tag. Either the message panel or general support information may be printed on the back of the tag. Examples of general support information are—"Do not remove—see reverse," "Contact supervisor before removing," or "See other side."

d. The message panel for tags should be Safety White for high contrast and for good legibility of information. Lettering should be Safety Black. Other high contrast color pairs may be used for symbolic representations.

e. The message panel may be surrounded by a tag border panel. The tag border should offer a contrast to the background color of the message panel, and use the same colors shown on the tag signal word panel. If necessary to achieve better contrast, the border may be Safety White.

f. Barricade tapes shall be placed to alert and inform the viewer in sufficient time to take appropriate evasive actions to avoid the hazard.

g. Barricade tapes shall be placed so they are legible, non-distracting, and so that their placement does not create another hazardous condition.

h. Safety tags shall be affixed by positive means such as nylon tie wrap, string, wire, adhesive, or other connecting means that reduce the likelihood of loss or unintentional removal. Lock-out gags should be attached by a one-piece, all environmental tolerant nylon cable tie.

i. Safety tags should include a provision for identifying and contacting the person authorizing or applying the tag. The safety tag or barricade tape shall be capable of withstanding the environment to which it is exposed for the maximum period of time that the temporary hazard is expected to exist.



Figure 2-6. Examples of safety tags

Chapter 3 Standards for Safety Markings

3-1. Use of color markings

All color markings will comply with federal standards and Army regulations.

3-2. Use of paint

Paint color numbers for markings and signs shall comply with Federal Standard 595A as listed in table 3-1. Use high-visibility (fluorescent) paint in the appropriate, similar color, when instant recognition is essential. Use luminous (phosphorescent) paint to mark the location of exits or emergency equipment in low-light areas. Materials other than paint, such as decals and tapes in similar colors, may be used for hazard markings and identification. Color coding should not be relied on as the sole means for identification of hazards. When areas require particular emphasis, labels and pictorials should be considered.

Table 3-1
Paint color numbers from Federal Standard 595A

Color	Gloss	Semi-gloss	Lusterless
Red	11105	21105	31136
Orange	12246	22246	32246
Yellow	13655	23655	33538
Green	14260	24260	N/A
Blue	15102	25102	N/A
Magenta	17142	27142	37142
White	17875	27875	37875

Table 3-1
Paint color numbers from Federal Standard 595A—Continued

Black	17038	27038	37038
-------	-------	-------	-------

Notes:

¹ Red No. 21136 may be used instead of 21105.

² Yellow No. 23538 may be used instead of 23655.

³ Retro-reflective colors shall conform to those colors specified in Federal Specification FP-03, 718-01.

3-3. Red markings

a. Fire equipment and systems. Use red as the basic color for identifying fire detection equipment and fire suppression systems. These include—

- (1) Fire alarm boxes (pull boxes).
- (2) Fire blanket boxes.
- (3) Fire extinguisher containers, except for stored pressure water extinguishers.
- (4) Fire extinguishers for large areas; when the extinguisher is not readily visible to area occupants, use red on the housing wall or support above the extinguisher to show its location.
- (5) Fire hose location.
- (6) Fire pumps.
- (7) Fire sirens, except vehicular-mounted.
- (8) Sprinkler piping (MIL-STD-101B).
- (9) Fire buckets.
- (10) Fire-reporting telephones.
- (11) Emergency exit signs. An exception consistent with the requirements contained in National Fire Protection Association (NFPA) 101 may be made to comply with local requirements.

b. Containers of flammable liquids. Containers of flammable liquids. Safety cans or other portable, service-type containers of flammable liquids having a flashpoint at or below 80 degrees Fahrenheit. Table containers of flammable liquids (open-cup tester), excluding shipping containers, will be painted red. In addition, such containers must have some additional, clearly visible identification either in the form of a yellow band around the can or the name of the contents conspicuously stenciled or painted on the can in yellow. Containers must be properly labeled with appropriate warnings and contents identified, as required by 29 CFR 1910.1200.

c. Danger. This includes—

- (1) Danger signs.
- (2) Stop buttons or electrical switches used for emergency stopping of machinery.
- (3) Emergency stop bars on hazardous machines.

3-4. Yellow markings

a. Use yellow as the basic color for—

- (1) Designating caution.
- (2) Marking dangerous chemicals and physical hazards that one could strike against, stumble over, or get caught between hazards.

b. Solid yellow, yellow and black stripes, or yellow and black checks in optional dimensions may be used interchangeably. Use the pattern that attracts the most attention in the particular environment.

c. The following are examples of where to use yellow markings for caution:

- (1) Industrial areas where particular caution is needed, such as the bottom edge of overhead doors or top and bottom treads and risers of stairways.
- (2) Fire hydrant barrels (refer to NFPA 291, for additional color-coding options for different firefighting hydrant pressure systems).
- (3) Caution signs.
- (4) Piping systems containing flammable material (MIL-STD-101B).
- (5) Waste containers for combustible materials (list contents using black lettering).
- (6) A hazardous floor area.

d. The following are examples of required yellow markings for physical hazards:

- (1) Lower pulley blocks and cranes that invade personnel areas.
- (2) Coverings and guide wires, sides of freight car loading plates, or runways (put stripes on sides of runways). Pillars, posts, or columns.
- (3) Fixtures suspended from ceilings or walls that extend into normal operating areas, corner markers where material-handling equipment is used.

- (4) Edges of horizontally-closing elevator doors.
- (5) Exposed edges of platforms, pits, and wells.
- (6) Required, static electricity, grounding points (aircraft, communication, generators, petroleum, oil, lubricants, and so forth). On these points, a yellow circle, 18 inches in diameter with a 2-inch black border, should encircle each grounding rod permanently installed in a hard surface. The words “static ground connection” or “static grounding point,” and a numeric or alphanumeric identification of the rod should be stenciled in black on a yellow circle. These markings may be painted or decals. However, the material used must be environmentally tolerant and not subject to degradation by petroleum, oil, and lubricants product spillage. Markings of this type are not required for temporary ground rods.
- (7) Exit passageways in hangars and warehouses.
- (8) Any container containing flammable liquids will be conspicuously painted yellow and marked “Flammable-Keep Fire Away” in red lettering.
- (9) Petroleum product containers used for shipping and storage and issued to table of organization and equipment units are excluded from this requirement.

3-5. Green markings

Use green markings as the basic color for designating safety equipment, including the location of first aid and first aid equipment (other than firefighting equipment and ambulance markings). The following are examples of where solid green, green and white stripes, green cross on white background, or white cross on green background should be used:

- a. First aid equipment.
- b. First aid dispensaries.
- c. Stretchers.
- d. Personnel deluge showers and eyewash sinks.
- e. Protective masks.
- f. Safety starting buttons, such as the inching button on dough mixers, metal planers, boring mills, and laundry equipment.
- g. Safety instruction signs.
- h. Safety bulletin boards.

3-6. Black, white, and yellow markings

Black, white, yellow, or combinations of black with white or yellow are the colors for designating traffic or housekeeping markings. The following are examples of where these markings will be used:

- a. *Traffic*. Examples include—
 - (1) Location and width of aisles in non-hazardous areas.
 - (2) Dead end of aisles or passageways.
 - (3) Directional signs.
- b. *Housekeeping*. Examples include—
 - (1) Location of refuse cans.
 - (2) Clear floor areas around first aid, firefighting, and other emergency equipment.

3-7. Blue markings

a. Safety Blue is the color for identifying SAFETY INFORMATION on information signs and bulletin boards. Use blue for outside of switch boxes and electrical controls that are the starting point power source for potentially hazardous, electrical machinery and equipment. This requirement does not apply to the following:

- (1) Quarters.
 - (2) Barracks.
 - (3) Offices.
 - (4) Electrical outlets.
 - (5) Room lighting controls.
 - (6) Avionics vans.
 - (7) Other unmodified, factory-installed equipment where voltage, frequencies, and other characteristics are clearly labeled.
- b. Blue has specific applications in railroading and is used to designate warnings against the starting, use, or movement of equipment that is under repair or being worked.

3-8. Orange markings

- a. Use orange as the basic color to—
 - (1) Designate dangerous parts of machines or energize equipment, where a potential hazard exists that could cut, crush, shock, or injure.

(2) Emphasize the above hazards, when enclosure doors are open, or when gear, belt, or other guards around moving equipment are opened or removed, exposing unguarded hazards.

b. Per AR 385–63, orange and white markers will be used to designate range limit markers.

Chapter 4

Specific Types of Army Signs

4–1. Street and highway markings

Colors of street and highway markings are designated in ANSI D6.1. Highly visible (according to light conditions) materials in the correct colors may be used. Examples of materials are phosphorescent, fluorescent, and retro-reflective paints and tapes.

4–2. Markings for pipelines and compressed-gas cylinders

Color and identification schemes to designate the contents in piping systems and compressed-gas cylinders must conform to MIL–STD–101B, 29 CFR 1910.1200, and 29 CFR 1910.253.

4–3. Markings for power conductors

Color and identification of power conductors, grounding conductors, heating cables, and other power-controlled equipment must conform to NFPA 70.

4–4. Biological markings

See DA Pam 385–69 for Army biological symbol and marking requirements.

4–5. Ammunition and explosive markings

See DA Pam 385–64 for ammunition and explosive symbols and markings.

4–6. Range markings

See DA Pam 385–63 for specific range safety signage.

4–7. Chemical agent markings

See DA Pam 385–61 for chemical agent symbols and markings requirements.

4–8. Radiation markings

See 29 CFR 1910.1096 and DA Pam 385–24 for ionizing radiation symbols and markings requirements.

Appendix A References

Section I Required Publications

AR 385-63

Range Safety (Cited in para 3-8*b*.)

ANSI D6.1

Manual on Uniform Traffic Control Device for Streets and Highways (Cited in para 4-1.) (Available from the American National Standards Institute, 25 West 43rd Street, New York, NY 10036.)

ANSI Z535.1

Safety Color Code (Cited in para 2-2*a*.) (Available from the American National Standards Institute, 25 West 43rd Street, New York, NY 10036.)

ANSI Z535.2

Environmental and Facility Safety Signs (Cited in para 2-3*i*.) (Available from the American National Standards Institute, 25 West 43rd Street, New York, NY 10036.)

ANSI Z535.4

Product Safety Signs and Labels (Cited in para 2-15.) (Available from the American National Standards Institute, 25 West 43rd Street, New York, NY 10036.)

ANSI Z535.5

Accident Prevention Tags (for temporary hazards) (Cited in para 2-15.) (Available from the American National Standards Institute, 25 West 43rd Street, New York, NY 10036.)

FP-03, 718-01

Federal Specification: Retroreflective Sheeting (Cited in para 3-2.) (Available at <http://flh.fhwa.dot.gov/resources/pse/specs/>.)

MIL-STD-101B

Color Code for Pipelines and Compressed Gas Cylinders (Cited in paras 3-3*a*(8), 3-4*c*(4), 4-2.) (Available at <http://www.nist.gov/standardsgov/>.)

NFPA 70

National Electrical Code (Cited in para 4-3.) (Available at <http://www.nfpa.org/>.)

NFPA 101

Life Safety Code (Cited in para 3-3*a*(11).) (Available at <http://www.nfpa.org/>.)

NFPA 291

Fire Flow Testing and Marking of Fire Hydrants (Cited in para 3-4*c*(2).) (Available at <http://www.nfpa.org/>.)

29 CFR 1910.145

Specifications for accident prevention signs and tags (Cited in para 2-12*c*(4).) (Available at <http://www.ecfr.gov/>.)

29 CFR 1910.253

Oxygen-fuel gas welding and cutting (Cited in para 4-2.) (Available at <http://www.ecfr.gov/>.)

29 CFR 1910.1096

Ionizing radiation (Cited in para 4-8.) (Available at <http://www.ecfr.gov/>.)

29 CFR 1910.1200

Hazard communication (Cited in paras 3-3*b*, 4-2.) (Available at <http://www.ecfr.gov/>.)

Section II Related Publications

A related publication is a source of additional information. The user does not have to read it to understand this publication.

AR 25-30

The Army Publishing Program

AR 608-1

Army Community Service

DA Pam 385-24

The Army Radiation Safety Program

DA Pam 385-30

Mishap Risk Management

DA Pam 385-61

Toxic Chemical Agent Safety Standards

DA Pam 385-63

Range Safety

DA Pam 385-64

Ammunition and Explosives Safety Standards

DA Pam 385-69

Safety Standards for Microbiological and Biomedical Laboratories

Federal Standard 595A

Federal Color Chart

10 USC 1588

Authority to accept certain voluntary services

29 CFR 1910.141 et seq.

General Environmental Controls

Section III

Prescribed Forms

This section contains no entries.

Section IV

Referenced Forms

Unless otherwise indicated, DA forms are available on the Army Publishing Directorate (APD) Web site (<http://www.apd.army.mil/>).

DA Form 2028

Recommended Changes to Publications and Blank Forms

Glossary

Section I Abbreviations

ANSI

American National Standards Institute

AR

Army regulation

CFR

Code of Federal Regulations

DA Pam

Department of the Army pamphlet

dBa

A-weighted decibel

mph

miles per hour

NFPA

National Fire Protection Association

USC

United States Code

Section II

Terms

This section contains no entries.

Section III

Special Abbreviations and Terms

This section contains no entries.

UNCLASSIFIED

PIN 103578-000