

Temporary Barricading & Barrier Requirements

BP WIND ENERGY POLICIES AND PROCEDURES

Temporary Barricading & Barrier Requirements

[**Document Control Details**](#)

Temporary Barricading & Barrier Requirements

1.0 Purpose/Scope

- 1.1 The purpose of this procedure is to identify situations requiring a Barricade or Barrier to prevent personnel injury and/or equipment damage.
- 1.2 This procedure will provide the minimum requirements for acceptable types of Barricades and Barriers that will be used on BPWE sites.
- 1.3 Access to areas with hazardous activities or unsafe conditions will be restricted. These situations require the use of Barricades, Barriers, caution/danger tape, and/or signage.

2.0 Reference

- 2.1 [29 CFR 1926.200, \(Subpart G\)](#) Signs, Signals, and Barricades
- 2.2 [29 CFR 1926](#) Safety and Health Regulations for Construction
- 2.3 [29 CFR 1910.145](#), Specifications for Accident Prevention Signs and Tags
- 2.4 [29 CFR 1926.203](#); [ANSI Z53.1](#), Safety Color Coding for Marking Physical Hazards
- 2.5 [Manual of Uniform Traffic Control Devices](#) (AMUTCD), 1988 Edition, Revision 3, September 3,

3.0 Acronyms and Definitions

Acronyms Table

Acronym	Definition
JSEA	Job Safety Environmental Analysis
MOC	Management of Change
PIC	Person in Charge

Definitions Table

Term	Definition
Barricade	Rigid physical structure isolating a hazardous zone such as excavations, openings in floors, walls, or roof areas, edges of platforms, and certain types of overhead work.
Barrier	Non-rigid physical structure designed to warn personnel of a hazardous zone.
Caution Zone	An area of less than one square foot with a hazard that is not immediately or foreseen as life threatening. Examples of such hazards are holes in walkways and/or work areas less than one square foot in size, slippery areas, etc. Caution zones shall be identified with yellow caution tape and

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Term	Definition
	signs or tags.
Danger Zone	An area with hazards that is immediately or foreseeably life threatening and/or can cause serious injury. Examples include open holes in walkways and/or work areas greater than one square foot in size, unsafe grating or handrails, or any other recognized serious safety concern. Danger zones shall be barricaded and/or marked with red danger tape and signs or tags.
Job Safety Environmental Analysis (JSEA)	A systematic look at a task to be performed; breaking it down to individual task steps, identifying potential hazards, and methods to control those hazards. A job related safety and environmental analysis is intended to identify hazards and provide actions to mitigate all known hazards with a particular task.
Performing Authority (PA)	The Performing Authority is the responsible person for the activity being carried out on the work site under the Control of Work Policy, practices, permits, and Work Control Certificate (WCC). The PA is accountable to the IA/AA for safe delivery of all work activities. The Performing Authority may be the person carrying out the task or may be supervising a group of people carrying the job. The Performing Authority can be responsible for more than one task at any one time, providing the tasks can be safely managed concurrently. The PA may serve as the IA if competent in the permit practice and requirements in question. However, the PA cannot serve as the AA. The PA and AA cannot be the same person. Each Permitted task must have a separate PA and AA.
Specialty Zones with Distinctive Barrier Requirements	Other areas existing in which specific barrier requirements are required due to regulatory or health concerns (i.e., radiation and asbestos).

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4.0 Procedure – Barricade and Barrier Requirements

- 4.1 Physical Barricades are a way of restricting access to danger zones. They must completely enclose the identified hazardous area and have appropriate signage. Barricades shall consist of a toprail and a midrail, with the toprail located approximately 42" above the ground or floor. Barricades shall be constructed of pipe, wire rope (minimum ¼" diameter), steel chain, or other materials of similar strength.
- 4.2 All barricade members shall be capable of withstanding the concentrated load of 200 pounds applied at any point and in any direction. The maximum deflection (sag) of the flexible barrier prior to and during a 200 pound load shall be 3 inches. (Reference [OSHA 29 CFR 1910 Subpart D](#)).
- 4.3 If fence material is used, the material must be adequately supported with wire rope, steel chain, or pipe (toprail and midrail) to maintain rigidity. Synthetic rope and plastic chain are not acceptable materials for Barricades. If permanent guardrails are installed, no signage will be required. Permanent guardrails must meet both BP's and regulatory design specifications.
- 4.4 Warning Barricades
- A. These offer no physical protection but serve to alert personnel in the area that a hazard is present.
- B. The following are suggested hazard warnings that should be utilized such as signs, tags, permits, tape, etc.
- Warning barricades must be set back 5 feet (1.5 meters) minimum from the hazard.
 - If 5 feet (1.5 meters) is not available, a protective barricade must be used.
- 4.5 Protective Barricades
- A. These not only warn of a hazard, but provide physical isolation or protection from the hazard. Protective barricades include guardrails or cables set at the proper height around an opening or anchored railroad ties to prevent driving into a culvert.
- B. All protective barricades shall be designed to meet their intended purpose.
- **Example 1:** If the barricade is to prevent personnel from walking into a floor hole, it must meet all requirements for a guardrail (top and mid rails and toeboard designed to resist a 200 pound or 85 kilogram force).
 - **Example 2:** If the barricade is to stop equipment from running into a ditch, etc., it must be the equivalent of railroad ties or 6-inch-ID concrete-filled pipe posts, set 3-feet deep in concrete, spaced three feet apart.
- C. Protective Barricades may include a swinging entrance gate through the railing of an offset passage in railing so employees cannot walk directly into the opening.
- 4.6 Hole Covers
- A. Hole covers must conform to the following requirements:
- Construct covers over large floor openings to the same loading specification as scaffold decking.

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- Secure (by means of cleats, wire, or nails) all covers to prevent displacement.
 - Clearly mark all covers with a 'Danger – Hole Cover – Do Not Remove' sign.
- B. In addition to the tasks above, and depending on the hole size, one of the following hole cover requirements will apply:
- If one dimension of the opening is 18 inches (45.5 centimeters) or less, use plywood at least $\frac{3}{4}$ inch (2 centimeters) thick.
 - If both dimensions of the opening exceed 18 inches (45.5 centimeters), use two layers of $\frac{3}{4}$ inch (2 centimeter) plywood or material at least 2 inches (5 centimeters) thick.
- 4.7 Barricade Tape
- A. All barricade tape shall be one of several colors that convey different levels of hazard warning.
- **Red** tape is used to convey 'DANGER – DO NOT ENTER', which means no one is to enter without the approval of the foreman/craftsman in charge and must wear all required personal protective equipment indicated for the hazard.
 - **Yellow or Yellow/Black** is used to convey '**CAUTION**'. Personnel are allowed to enter the barricade only after they have read the tag to understand the purpose of the barricade and are alerted to the hazards within the area.
 - **Yellow/Magenta** tape means that radioactive material is present. Only authorized persons are allowed to enter.
- B. Barricade tape shall be used only on a temporary basis to denote a hazard area. Barricade tape tends to be damaged easily by personnel who must travel in and out of the barricade, wind, and other environmental elements.
- C. Hard barricades are encouraged whenever possible to guard against hazards that remain longer than one shift. In the event hard barricades are not feasible, the line manager should designate a person who is responsible for ensuring the barricade remains in good condition.
- D. Barricade tape shall be erected at a height of 39 to 45 inches such that the barricade is effective (completely encompass the hazard area) and does not present tripping hazards. Effort should be made to use stanchions that are sturdy and can be expected to maintain the barricade at the appropriate height.
- E. Yellow/Black (2")
- Yellow-black 2" tape shall designate an area of 'CAUTION' (excavations less than 4 feet, tripping hazards, separation of work areas from walkways, etc.).
 - It is designed to alert employees to a hazard exposure.
 - Employees shall be allowed to move through an area marked with "CAUTION" marking, but only with knowledge of why the area is marked and with the approval of the individual(s) who erected the barricade.
 - A yellow barricade should be attended or a sign or tag used to explain the hazard, identify the barricade owner, and the date of placement.

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F. Red (2")

- Red 2" tape shall designate an area of 'DANGER.'
- Only authorized personnel shall enter a designated 'DANGER' area. All others shall go around.
- Red 2" tape denotes a high hazard or 'DANGER' area that is restricted only to those necessary and authorized to enter by the barricade owner.
- A red barricade should be attended or a sign or tag used stating: 'Danger, Authorized Personnel Only', a brief explanation of the hazard, barricade owner's name, and date of placement.

G. Barricade tape requirements shall be enforced at all times.

4.8 Identification Tags

A. Tags shall be placed on all barricades to indicate:

- The person that placed the barricade tape.
- Purpose or reason for the barricade.
- PPE that is required to enter.
- Date placed.

B. Personnel are to make sure that all writing is legible.

4.9 Caution Zones

A. Caution Zones require warnings with Barriers that block off the location from access using yellow caution tape and/or signs to signify the point of danger.

B. This danger type may include, but not be limited to, the following:

- Open holes in decks or walkways where the opening is one square foot or less.
- Hot work areas.
- Attended confined space work areas.
- Attended excavation/trenching activities.
- Attended work areas with exposed or energized electrical equipment.
- Slip/trip and same level fall hazards.

C. Before entering a Caution Zone, each individual must understand the hazards associated with the area.

4.10 Danger Zones

A. Danger Zones require warnings with Barricades that block off the location from access using red danger tape and/or signs to signify the point of danger.

B. This danger type may include, but not be limited to, the following:

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- Open holes in decks or walkways are greater than one square foot.
- Deteriorated or unsafe grating, which poses the threat of a fall to a lower level.
- Overhead work areas where there is potential for falling objects.
- Deteriorated or missing handrails, which pose the threat of a fall.
- Unattended work areas with exposed or energized electrical equipment.
- Unattended and exposed excavation/trenches.
- “Critical” lifting operations as identified in the Crane Operating and Maintenance Program.
- Unattended and open permit-required confined spaces.

C. Persons working a Danger Zones shall follow the steps below:

- Enter Danger Zones only with specific permission from the facility supervisor or PIC.
- Enter the barricaded area (Danger Zone) only after conducting a review of the Job Safety Environmental Analysis (JSEA) to identify the hazards and obtaining a valid Permit to Work from the supervisor or PIC.
- Use fall protection for areas with entry into Danger Zones where open holes or questionable walking surfaces exist or if a fall greater than six feet is possible.
- Install an approved guardrail if barricading remains on-site beyond 90 days. If a guardrail installation occurs, it is considered a permanent change to the facility.

D. The Performing Authority shall execute the following tasks:

- Confirm that the barricade and/or zone markings are maintained and housekeeping is in order.
- Confirm that Barricades and/or temporary Barriers are not removed until the hazard is abated or corrected.
- Confirm that barricaded areas are inspected during normal rounds of platform personnel to comply with these requirements.

4.11 Other Specialized Zones

A. The following is a list of other specialized barriers:

- Work areas that pose a health risk (X-ray, Asbestos, Lead, etc.).
- Injury/incident scenes that have not been investigated or where potentially infectious material may be present.
- Radiation work areas identified by radiation tape as required.
- Asbestos work areas identified by red tape as required.

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5.0 Training

5.1 There are no formalized training requirements for this procedure other than being familiar with the requirements.

6.0 Auditing

6.1 This procedure shall be audited (and updated as necessary) every three years.

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