# FALL PROTECTION BSB- 0200-03

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Date: 01/23/2023

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Date: 01/23/2023

BOILER SAFETY BUREAU STANDARD OPERATING PROCEDURE MANUAL

#### 1.0 PURPOSE

To specify the actions the Boiler Safety Bureau (Bureau or BSB) shall take to protect Bureau personnel from the hazards of falling to the same or lower level and from the hazards of crushing loads falling on Bureau personnel.

#### 2.0 SCOPE

This procedure applies to all Bureau personnel (Employee or Employees).

## 3.0 PERSONNEL RESPONSIBILITIES

- 3.1 The Bureau Chief BSB has the overall responsibility for implementation of this procedure.
- 3.2 Supervisors are responsible for ensuring that their assigned Employees adhere to this procedure.
- 3.3 Employees shall follow the requirements outlined in this procedure when exposed to any fall hazard.

# 4.0 HEALTH and SAFETY ISSUES

Addressed in the body of this document.

#### **5.0** PROCEDURE

#### 5.1 Definitions:

- 5.1.1 Dangerous equipment—Equipment that, as a result of form or function, may be hazardous to Employees who fall onto or into it, including but not limited to galvanizing tanks, degreasing units, machinery with exposed moving parts and electrical equipment.
- 5.1.2 Excavation—Any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal, excluding surface metal and nonmetal mines.

#### 5.1.3 Heights triggering fall protection—

- a) Where the Employee is performing job duties on a construction site or which involve construction activities, six feet or more above the lowest surface upon which the Employee could directly fall.
- b) Where the Employee is performing job duties at any other location, four feet above the lowest surface upon which the Employee could directly fall.
- c) Any height where an Employee must work directly adjacent to or above dangerous equipment.
- d) When working or traveling within 15 feet of a roof edge.

- 5.1.4 Hole—A gap or void 2 inches or greater in its least dimension in a walking/working surface.
- 5.1.5 Ladder—An appliance usually consisting of two side rails joined at regular intervals by rungs, used to access elevated walking/working surfaces or locations above the height of a person.
- 5.1.6 Open-sided walking/working surface—A walking/working surface which does not have at every edge a wall, parapet, or similarly substantial permanent barrier at least 39 inches high at every point except points of access (including holes within the interior of the surface large enough for an Employee to pass through).
- 5.1.7 Point of access—The point where stairways, ramps, and similar devices allow access to a walking/working surface.
- 5.1.8 Rungs—The crosspieces of a ladder on which a person may step in ascending and descending.
- 5.1.9 Scaffold—A temporary elevated platform and its supporting structure, used for supporting workers, material, or both.
- 5.1.10 Stairway—A series of four or more steps or risers leading from one walking/working surface to another.
- 5.1.11 Stepstool—A movable platform or series of platforms designed to be used to increase the Employee's height from the floor while accessing overhead storage or similar material.
- 5.1.12 Stepladder—A self-supporting portable ladder, nonadjustable in length, having flat steps and a hinged back.
- 5.1.13 Walking/working surface—Any surface, whether horizontal or vertical, on which the Employee walks or works, including but not limited to floors, roofs, ramps, bridges, runways, formwork and platforms.
- 5.2 Employees are prohibited from standing, working, and moving on any open-sided walking/working surface which is at or higher than the height triggering fall protection, unless:
  - 5.2.1 The Employee is protected from falling by an acceptable form of fall protection which complies with the requirements of 29 CFR 1926.502

http://www.osha.gov/pls/oshaweb/owadisp.show\_document?p\_table=STANDARDS&p\_id=12759, or 29 CFR 1910, Subpart D http://www.osha.gov/pls/oshaweb/owadisp.show\_document?p\_table=STANDARDS&p\_id=10112; or

- 5.2.2 The Employee complies with Bureau-specific requirements for fall protection, in compliance with 29 CFR 1910 Subpart D http://www.osha.gov/pls/oshaweb/owadisp.show\_document?p\_tabl e=STANDARDS&p\_id=10112, and 29 CFR 1926 Subpart M http://www.osha.gov/pls/oshaweb/owadisp.show\_document?p\_tabl e=STANDARDS&p\_id=10922.
- 5.3 Employees performing duties near excavations shall stand, work and move while maintaining a safe distance.
- 5.4 Employees performing job duties shall not enter any excavation unless:
  - 5.4.1 The Employee has determined that entry into the excavation is necessary for the performance of the Employee's job duties and the mission of the Bureau; and
  - 5.4.2 The Employee is accompanied by a person who has been trained to recognize hazards associated with excavations and in the means to determine whether the necessary safety devices and/or configuration have been provided and can establish that the excavation is entirely in stable rock; or
  - 5.4.3 The Employee can enter, work, and leave the excavation without coming within a distance of any unprotected side equal to the height of the side.
- 5.5 Employees performing job duties in or around any surface metal or nonmetal mine shall not come within six (6) feet of the top of a wall, or within a distance to the base of the wall equaling the height of the wall, unless the Employee is escorted by mine personnel trained in mine safety.
- 5.6 No Employees in the performance of job duties shall ascend or descend a stairway that:
  - 5.6.1 Does not have a handrail installed the entire length of the flight; or
  - 5.6.2 Has an unprotected side presenting a fall at or greater than the height triggering fall protection; or
  - 5.6.3 Has missing or broken risers; or
  - 5.6.4 Has metal pan landings and/or treads that are not secured in place, or are temporarily, improperly filled with loose wood or other material, until permanently finished with concrete, etc.
- 5.7 No Employees shall utilize a portable or fixed ladder which is not constructed and erected in accordance with the requirements contained in:
  - 5.7.1 29 CFR 1910.25 http://www.osha.gov/pls/oshaweb/owadisp.show\_document?p\_tabl e=STANDARDS&p\_id=9717

- 5.7.2 29 CFR 1910.25 http://www.osha.gov/pls/oshaweb/owadisp.show\_document?p\_tabl e=STANDARDS&p\_id=9718 or
- 5.7.3 29 CFR 1910.27 http://www.osha.gov/pls/oshaweb/owadisp.show\_document?p\_table=STANDARDS&p\_id=9719
- 5.7.4 and 29 CFR 1926.1053 http://www.osha.gov/pls/oshaweb/owadisp.show\_document?p\_tabl e=STANDARDS&p\_id=10839.
- **NOTE:** The affected Employees will be trained in the hazards associated with ladders and the requirements of the safety and health regulations addressing safe ladders.
- 5.8 No Employees shall stand, work or move on any scaffold unless:
  - 5.8.1 The Employee has clearly determined that work on scaffolds is necessary for the performance of job duties and the mission of the Bureau; and
  - 5.8.2 The Employee can establish that the scaffold has been erected in accordance with the requirements of 29 CFR 1910.28, or 29 CFR 1926.450 and 454.
  - **NOTE:** The affected Employees will be trained in the hazards associated with scaffolds and the requirements of the safety and health regulations addressing safe scaffolds.
- 5.9 Walking/working surfaces in Bureau-controlled areas
  - 5.9.1 Inspection and correction
    - a) The condition of walking/working surfaces within buildings directly under the control of the Bureau shall be inspected at the periodic checks provided by the DOL Safety & Health Committee.
    - b) Where a walking/working surface is found to be in violation of safety and health regulations which could result in the Employee falling to a lower elevation or being struck by a falling object, the Bureau Chief or his representative shall be apprised, and ensure that immediate barricades are provided against either the fall hazard or Employee access until the hazard can be permanently corrected.
    - c) Where a walking/working surface is found to be in violation of safety and health regulations which could result in the Employee slipping, tripping and/or falling to the

Division/Bureau: Standards and Inspections/Boiler
Document Name: Boiler Policy 0200-03
Adoption date: 04/15/2005
Revision date: 01/23/2023
# Revision: 5
Page 5 of 8

same elevation, the Bureau Chief or his representative shall notify all affected Employees of the hazard, and shall mark the hazard with a safety sign until the hazard can be permanently corrected.

## 5.10 Stepstools

- 5.10.1 Each location where storage exceeds five feet in height shall be provided with a stepstool or stepladder of sufficient height to allow the Employee to reach the storage without reaching over their heads.
- 5.10.2 The Employee shall not step on any step of a stepstool or portable stair over four feet above the walking/working surface unless guardrails or other means of fall protection are provided. The Employee shall not step on the top step of a stepladder.
- 5.11 For each identified job classification, the Supervisors shall determine hazards, adequate fall protection requirements and policies. This determination shall be recorded on the Hazard Assessment for that Job Classification.

## 5.12 Training

- 5.12.1 The Bureau Chief shall ensure that training is developed and provided to the Employee prior to releasing them to work.
- 5.12.2 The training shall, at a minimum, cover the following topics:
  - a) The recognition of each type of fall hazard identified.
  - b) The types of fall protection that may be provided by the employer or owner, how to identify their presence or absence and how to determine their adequacy to protect against the fall hazard.
  - c) The procedures for moving through an area containing fall hazards for the purpose of accessing a safe area or point of access.
  - d) The prohibition against exposing oneself to a fall hazard without adequate means of fall protection.
  - e) The requirements of 29 CFR 1926, Subpart M (Construction)
    http://www.osha.gov/pls/oshaweb/owadisp.show\_documen
    t?p\_table=STANDARDS&p\_id=10922, and 29 CFR 1910
    Subpart D (General Industry)
    http://www.osha.gov/pls/oshaweb/owadisp.show\_documen
    t?p\_table=STANDARDS&p\_id=10112.

Page 6 of 8

- 5.12.3 Employees are reasonably anticipated to use ladders and shall be trained in the following additional topics:
  - a) The types of ladders acceptable for use.
  - b) The minimum requirements for construction of each type of ladder acceptable for use.
  - c) The requirements for installation of the ladder before the Employee can use it.
- 5.12.4 Employees are reasonably anticipated to work on scaffolds or scaffold platforms and shall be trained in the following additional topics.
  - a) The types of scaffolds acceptable for use.
  - b) The safe erection and access requirements for each type of scaffold acceptable for use.
  - c) The requirements of 29 CFR 1926.454(a) and (b).
- 5.12.5 Employees are reasonably anticipated to enter excavations and in lieu of training shall always be escorted by a person trained in excavation safety.
- 5.12.6 Employees are authorized to use personal fall arrest systems and shall be trained in the following additional topics:
  - a) The proper use, inspection, and care of the personal fall arrest system.
  - b) The identification of adequate anchorage points.
  - c) The limitations of the personal fall arrest system.
  - d) Indications of unacceptable wear or damage to the equipment.
  - e) Emergency procedures.
  - f) The requirements listed in 29 CFR 1926.503.
- 5.12.7 When the Supervisors have reason to believe that any of the Employees, who have already been trained, does not have the understanding and skill required to follow the procedures for fall protection, or use the appropriate fall protection system, the Supervisors shall ensure retraining of such Employees.

# **6.0** CUSTOMER SERVICE REQUIREMENTS

The purpose of following this procedure is to provide the customer, be it the public, employees of the Bureau, or other state agencies, with the most efficient service, information, training, and assistance possible.

## 7.0 DATA and RECORD MANAGEMENT

Records shall be maintained in accordance with the Functional Schedule for North Carolina State Agencies as adopted by State Archives, a Division of the North Carolina Department of Natural and Cultural Resources.