APOLLO INDUSTRIAL SAFETY AND HEALTH PROGRAM

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| Title  CONCRETE AND MASONRY CONSTRUCTION | Number  AISH 39 | Revision  03 |
|  | Effective Date  04/21/17 | Page  1 of 3 |

1. **Purpose**

To establish requirements for concrete and masonry construction, and to ensure compliance with state and federal requirements.

1. **Responsibility**
   1. The Key Supervisor shall be responsible for implementation and ensuring compliance with this procedure.
   2. Employees shall be responsible for complying with the provisions of this procedure.
2. **Definitions**

Not Applicable

1. **General Requirements**
   1. Lift-slab operations shall be in accordance with the requirements of ANSI A10.9 sections 11 and 29.
   2. Scaffolds shall be constructed, used, and maintained in accordance with the provisions of AISH 22.
   3. Construction loads shall not be placed on a concrete structure or portion of a concrete structure unless it has been determined that the structure or portion of the structure is capable of supporting the loads. Such a determination shall be based on information received from a person qualified in structural design.
   4. Any and all impalement hazards, onto and into which employees could fall, shall be guarded to eliminate the hazard of impalement.
   5. Employees shall not be permitted to ride or work under concrete buckets.
   6. Hand protection shall be worn by employees applying and finishing cement, sand, and water mixtures.
   7. Employees shall not be permitted to place or tie reinforcing steel above any adjacent working surface unless they have appropriate fall protection in accordance with the provisions of AISH 11.
   8. When service or maintenance of machinery may expose employees to the unexpected release or activation of hazardous energy, such work shall be conducted in accordance with the provisions of AISH 15.
   9. To reduce employee exposure to respirable crystalline silica refer AISH 21 Silica Safety Program.
   10. Masonry saws shall be guarded with a semicircular enclosure over the blade.
2. **Procedure**
   1. Equipment and Tools
      1. Manually guided, powered, and rotating concrete troweling machines shall be equipped with a control switch that automatically shuts off the power whenever the hands of the operator are removed from the equipment handles.
      2. Concrete buggy handles shall not extend beyond the wheels on either side of the buggy.
      3. Compressed air hoses used on concrete pumping systems shall be provided with positive fail-safe joint connectors to prevent the separation of sections when the hoses are pressurized.
      4. Concrete buckets equipped with hydraulic or pneumatic gates shall have positive safety latches or equivalent safety devices to prevent premature or accidental dumping.
      5. No employee shall be permitted to perform maintenance or repair activity on equipment (such as compressors, mixers, screens or pumps used for concrete and masonry construction activities) where the inadvertent operation of the equipment could occur and cause injury, unless all potentially hazardous energy sources have been locked out and tagged.
   2. Forms and Shoring
      1. Form work shall be designed, fabricated, erected, supported, braced, and maintained to support, without failure, all vertical and lateral loads that may be reasonably anticipated to be applied to the form work.
      2. Shoring equipment shall be inspected prior to erection to determine that the equipment is in safe condition. Shoring equipment that is found not to be in safe condition shall not be used.
      3. Forms and shores shall not be removed until it has been determined that the concrete has gained sufficient strength to support its weight and superimposed loads.
   3. Masonry: Whenever a masonry wall is constructed, a limited access zone shall be established as follows:
3. The limited access zone is established prior to the start of construction of the wall.
4. The zone is equal to the height of the wall to be constructed – plus 4 ft. – and runs the entire length of the wall.
5. The zone is established on the side of the wall that is unscaffolded.
6. The zone is restricted. Employees are not permitted to enter the zone unless they are actively engaged in constructing the wall.
7. The zone remains in place until the wall is adequately supported to prevent it from overturning or collapsing. If the wall is over 8 ft. high, the zone remains in place until permanent supporting elements of the structure are in place.
8. Walls shall be braced over 8ft in height and every 20 ft horizontally. Braces shall be pole type shoring brace or equivalent and remain in place until wall is structurally sound.

**6.0 Records**

Not Applicable

**7.0 References**

American National Standards Institute (ANSI) A10.9, Safety Requirements for Concrete Construction and Masonry Work.

29 Code of Federal Regulations (CFR) Part 1926, Subpart Q; Concrete and Masonry Construction.

**8.0 Attachments**

Not Applicable