

4123:1-9-04 Steel making.

(A) Mixers.

- (1) All mechanically or electrically operated mixers shall be equipped with a counterbalance, automatic device, or the equivalent, designed to return the mixer to an upright position or to prevent it from further tipping in case of power failure.
- (2) All hydraulically powered mixers shall be equipped with an emergency valve so arranged that if the main operating valve fails while the mixer is pouring, the emergency valve can be operated immediately to return it to an upright position or to prevent it from further tipping.

(B) Mixer building.

The mixer building shall be equipped with an audible warning device which shall operate automatically during any pouring operation.

(C) Auxiliary hoists (mixer ladle cranes).

Auxiliary hoists on mixer ladle cranes shall be equipped with a type of hook which can be attached to the ladle after the ladle has been hoisted into pouring position.

(D) Oxygen furnaces - blown basic steelmaking process.

- (1) Each oxygen furnace - blown basic steelmaking process shall be equipped with a means of communication connecting the charging crane, the charging floor, each operating floor and each pulpit.
- (2) Charging floors and operating floors shall be provided with approved handrails and toeboards. This does not apply to pouring and mold preparation platforms.
- (3) Pit areas on charging and tapping sides of steelmaking processes shall be provided with drainage.
- (4) Provision shall be made to shut off the oxygen when a furnace is shut down for repairs.
- (5) Tapping platforms and charging floors.
 - (a) Tapping platforms and charging floors shall be provided with standard guardrailings. This does not apply to pouring and mold preparation platforms.

- (b) A guard shall be provided to protect the opening in the railing of a tapping platform used for spouts and runners, which may be removed when work is being performed at that point.

(E) Electric furnaces.

- (1) Provision shall be made to lock out the source of power when work is performed in or on an electric furnace.
- (2) Transformer vaults for electric furnaces shall be kept locked at all times and accessible only to authorized personnel.
- (3) Tapping platforms and charging floors.
 - (a) Tapping platforms and charging floors shall be provided with standard guardrailings. This does not apply to pouring and mold preparation platforms.
 - (b) A guard shall be provided to protect the opening in the railing of a tapping platform used for spouts and runners, which may be removed when work is being performed at that point.

(F) Muffle furnaces.

Muffle furnaces shall be equipped with a safe means of lighting.

(G) Scrap breakers.

Where a demolition weight is used to break skulls and scrap, the operation shall be performed in a restricted or guarded area identified by appropriate signs and away from employees not involved in demolition work.

Effective: 3/15/10
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