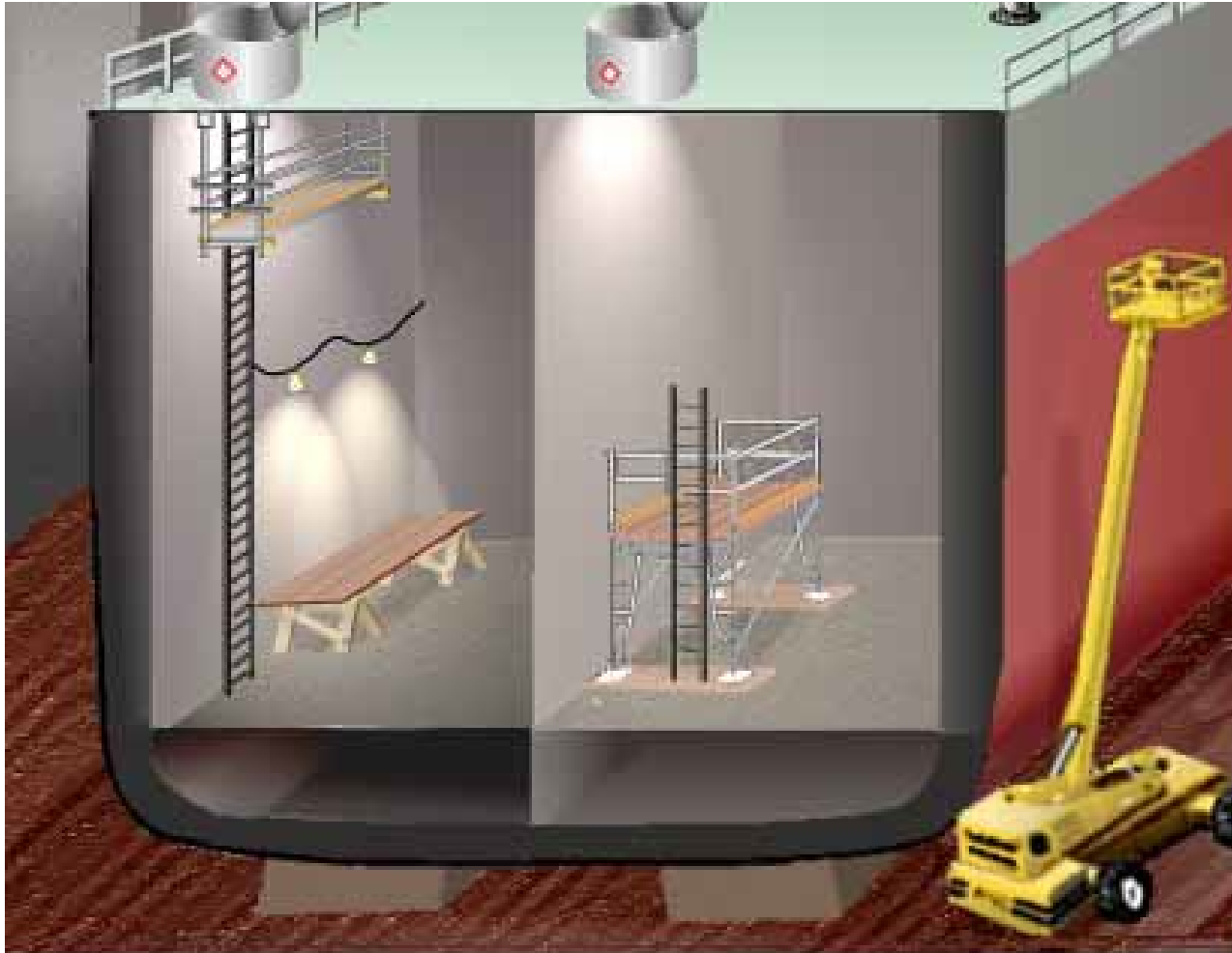


Shipyard Employment

Scaffolds, Ladders and Other Working Surfaces - Subpart E



Scaffolds, Ladders and Other Working Surfaces - Subpart E

- **1915.71** – Scaffolds or staging
 - **1915.72** – Ladders
 - **1915.73** – Guarding of deck opening and edges
 - **1915.74** – Access to vessels
 - **1915.75** – Access to and guarding of dry docks and marine railways
 - **1915.76** – Access to cargo spaces and confined spaces
 - **1915.77** – Working surfaces
-

Scaffolds or Staging

1915.71(b)

- Scaffolds and their supports
 - Capable of supporting load they carry
 - Safety factor of not less than four (4)



Scaffolds or Staging

1915.71(b)

- Unstable objects not used as working platforms

Or

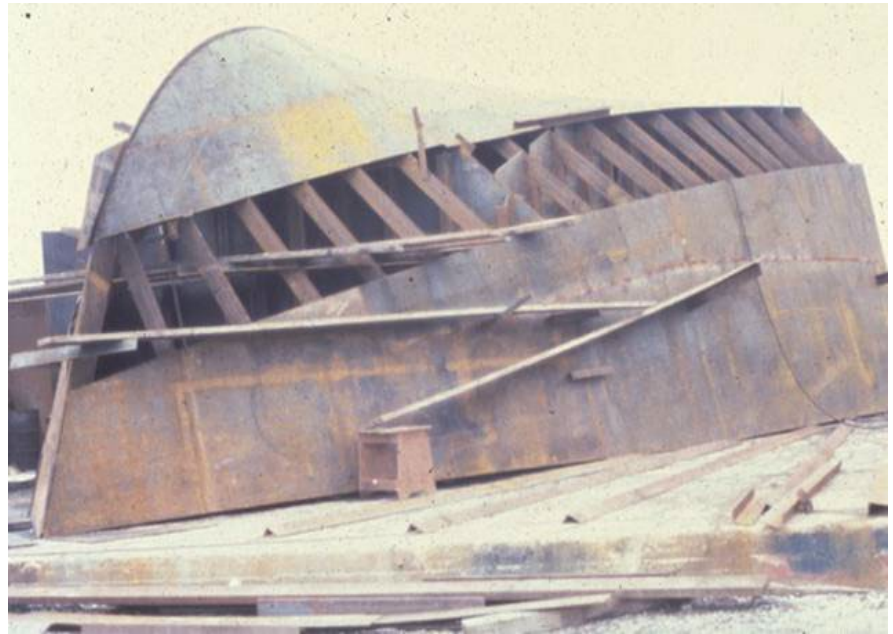
- For support of planking intended as scaffolds or working platforms



Scaffolds or Staging

1915.71(b)

- Scaffold not erected, moved, dismantled or altered
 - Except under supervision of competent persons



Scaffolds or Staging

1915.71(b)

- Lifting bridles on working platforms suspended from cranes
 - Consist of four legs
 - Attached that stability of platform is assured



Scaffolds or Staging

1915.71(b)

- Unless crane hook has safety latch or moused;
 - Lifting bridles on working platforms suspended from cranes
 - » Attached by shackles to lower lifting block, or
 - » Other positive means taken to prevent accidental disengagement from crane hook



Scaffold or Platform Planking

1951.71(i)

- Platform planking not less than 2" x 10" lumber
- Platform planking straight-grained and free from large or loose knots
 - May be either rough or dressed



Scaffold or Platform Planking

1915.71(i)

- Platforms of staging not less than two 10" planks in width except;
 - Structure of vessel or width of trestle ladders
 - » Impossible to provide such a width



Scaffold or Platform Planking

1915.71(i)

- Platform planking project beyond supporting members
 - At least 6 inches
 - No more than 12 inches
 - » Unless planks are fastened to supporting members



Backrails and Toeboards

1915.71(j)

- Scaffolding, staging, runways, or working platforms
 - Supported or suspended > 5' above solid surface
 - Or any distance above water
 - » Provided with a railing;
 - » Top rail upper surface 42" – 45" above upper surface of staging, platform, or runway
 - » Midrail halfway between upper rail and staging, platform, or runway



Backrails and Toeboards

1915.71(j)

- Rails 2" x 4" lumber, flat bar or pipe
- When used with rigid supports
 - Taut wire or fiber rope of adequate strength used
- When distance between supports more than 8'
 - Rails equivalent in strength to 2" x 4" lumber
- Rails firmly secured
- Where exposed to hot work or chemicals
 - Fiber rope rails not used



Backrails and Toeboards

1915.71(j)(3)

- Rails omitted where structure of vessel prevents use
 - When rails omitted
 - » Employees > 5' above solid surfaces protected by safety belts and life lines
 - » Employees over water protected by buoyant work vests



Backrails and Toeboards

1915.71(j)

- Prevent tools and materials from falling on men below
- Toeboards not less than 1" x 4" lumber provided



Ladders

1915.72(a)(1)

- Ladders with broken or missing rungs or steps, broken or split side rails, faulty or defective construction – *not used*
- Defective ladders immediately withdrawn from service



Ladders

1915.72(a)(3)

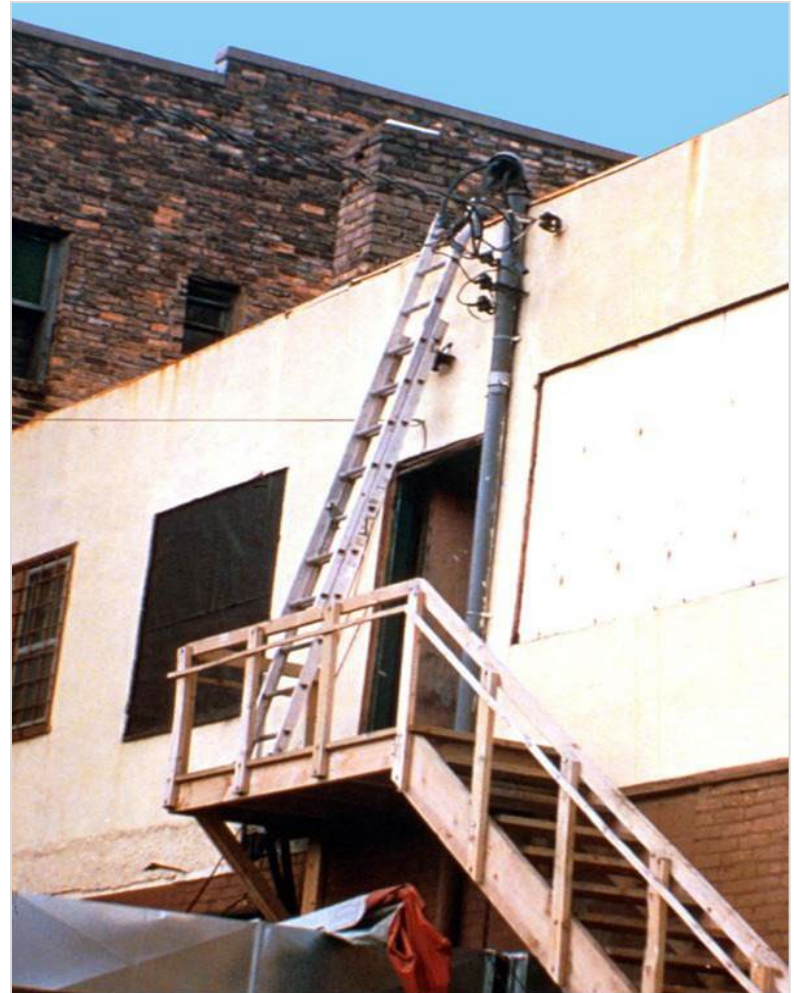
- Portable ladders lashed, blocked or secured to prevent being displaced
- Side rails of ladders used for access to any level
 - Extend not less than 36" above level
 - » When not practical
 - » Grab rails providing secure grip for access installed



Ladders

1915.72(a)(5)

- Portable metal ladders not used near electrical conductors
- Not used for electric arc welding operations



Guarding of Deck Openings and Edges

1915.73(b)

- Flush manholes and small openings of comparable size in deck
 - Suitably covered or guarded to height of not less than 30"
 - Except where use of such guards impracticable by work actually in progress



Guarding of Deck Openings and Edges

1915.73(d)

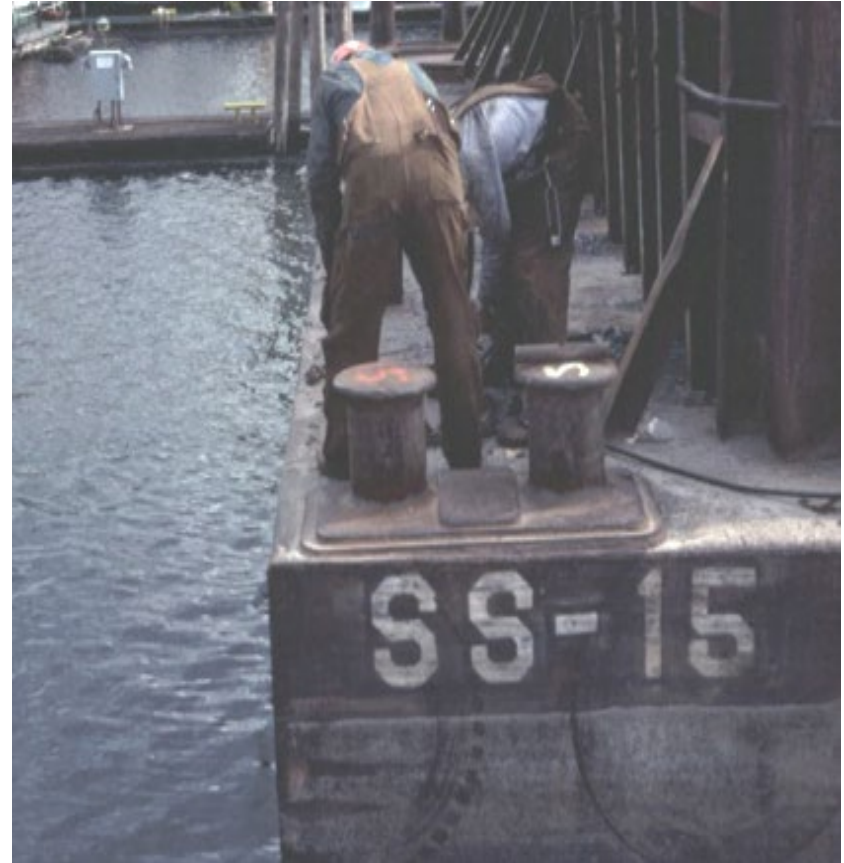
- Unguarded edges of decks, platforms, flats, and similar flat surfaces, > 5' above solid surface
 - Edges guarded by adequate guardrails
 - Unless nature of work in progress or physical conditions prohibit use or installation guardrails



Guarding of Deck Openings and Edges

1915.73(e)

- Employees near unguarded edges of decks of vessels afloat
- Protected by personal flotation devices



Guarding of Deck Opening and Edges

1915.73(f)

- Sections of bilges with floor plates or gratings removed
 - Guarded by guardrails
 - » Except where would interfere with work in progress
 - Open sections in walkway
 - » At least two 10" planks placed side by side, or equivalent
 - » Laid across opening to provide safe walking surface



Access to Vessels

1915.74(a)(1)

- Whenever practicable;
 - Gangway of not less than 20" walking surface of adequate strength
 - Maintained in safe repair and safely secured
- Gangway not practicable;
 - Substantial straight ladder, extending at least 36" above the upper landing surface
 - Adequately secured against shifting or slipping
- Conditions where neither a gangway nor a straight ladder can be used;
 - Jacob's ladder may be used



Access to and Guarding of Dry Docks and Marine Railways

1915.75(a)

- A gangway, ramp or permanent stairway of not less than 20" walking surface
 - Adequate strength
 - Maintained in safe repair
 - Securely fastened
- Provided between floating dry dock and pier or bulkhead



Access to Cargo Spaces and Confined Spaces

1915.76(b)(1)

- More than one means of access provided:
 - To confined space in which employees are working
 - Work generates hazardous atmosphere in space
- Except where structure or arrangement of vessel makes provision impractical



Access to Cargo Spaces and Confined Spaces

1915.76(b)(2)

- When ventilation ducts pass through means of access:
 - Ducts of such type and so arranged
 - » Permit free passage of employee through at least two of these means of access



Working Surfaces

1915.77(c)

- Employees working aloft, or elsewhere at elevations > 5' above a solid surface
 - Either scaffolds or a sloping ladder used to afford safe footing
- Or*
- Employees protected by safety belts and lifelines



Working Surfaces

1915.77(c)

- Employees visually restricted by blasting hoods, welding helmets, and burning goggles;
 - Work from scaffolds, not from ladders
- Except for initial and final welding or burning operation to start or complete a job;
 - Such as erection and dismantling of hung scaffolding
 - Other similar, non-repetitive jobs of brief duration



Working Surfaces

1915.77(e)

- Employees boarding, leaving, or working from small boats or floats;
 - Protected by personal flotation devices



Thank You For Attending!

Final Questions?

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