

<a href="#">Ownership matrix</a>	<b>RPP-27195</b>
----------------------------------	------------------

**TABLE OF CONTENTS**

1.0 PURPOSE AND SCOPE ..... 2

2.0 IMPLEMENTATION ..... 2

3.0 STANDARD ..... 2

    3.1 Responsibilities ..... 2

    3.2 General ..... 4

    3.3 Portable Ladders ..... 5

    3.4 Mobile Ladder Stands ..... 7

    3.5 Fixed Ladders ..... 7

    3.6 Job-Made Wooden Ladders ..... 8

    3.7 Records ..... 9

4.0 DEFINITIONS ..... 9

5.0 SOURCES ..... 10

    5.1 Requirements ..... 10

    5.2 References ..... 11

**TABLE OF FIGURES**

Figure 1. Portable Ladder Inspection Checklist ..... 12

Figure 2. EXAMPLE: Notice, “Contact Facility Management Before Using This Ladder” Sign ..... 13

Figure 3. Ladder Storage Sign ..... 14

Figure 4. Danger, Do Not Use Tag ..... 15

Figure 5. Job-Made Wooden Ladder Inspection Tag ..... 16

**TABLE OF ATTACHMENTS**

ATTACHMENT A – PORTABLE LADDER USAGE ..... 17

ATTACHMENT B – FIXED LADDER DIMENSIONAL CRITERIA ..... 20

## **1.0 PURPOSE AND SCOPE**

This standard establishes requirements to ensure proper selection, inspection, and storage of portable and fixed ladders and mobile ladder stands. This standard does not apply to access ladders constructed as a component part of scaffolding. (5.1.1, 5.1.3, 5.1.4, 5.1.5, 5.1.6)

Ladder use and working from ladders, is also addressed in DOE-0346, the Hanford Site Wide Fall Protection Program (HSFPP). (5.1.7)

This standard applies at all Washington River Protection Solutions, LLC (WRPS) managed facilities.

## **2.0 IMPLEMENTATION**

To implement the creation and field use of the initial Job-Made Wooden Ladder inspection tags, Section 3.6.4, use of said tags (Figure 5) are allotted a 6-month implementation period from the date of publication of this procedure version. All other sections are effective on the date shown in the header.

## **3.0 STANDARD**

### **3.1 Responsibilities**

#### **3.1.1 Line Management**

1. Managers and supervisors ensure employees who use ladders are trained in the following areas:
  - Proper method of conducting a pre-use inspection
  - Selecting the proper ladder for the task assigned
  - Recognition of hazards related to ladder use
  - Fall hazards associated with ladder use
  - Proper use, placement, handling and storage of portable ladders, and the maximum intended load-carrying capacities of ladders used
  - Managers and supervisors shall reinforce safe ladder work practices.
2. Managers and supervisors ensure implementation of this ladder safety program
  - Managers and supervisors should employ a way of tracking portable ladders for ease of locating for annual competent person inspection
  - Ensure there is a designated ladder storage location and ladders are stored properly when not in use.

<b>Ladders</b>	<b>Manual Document Page Issue Date</b>	<b>TFC-ESHQ-S-STD-01, REV G-1</b>	<b>ESHQ 3 of 23 November 6, 2018</b>
----------------	--	-----------------------------------	--------------------------------------

3. Managers and supervisors support the evaluation of work in accordance with the Job Hazard Analysis (JHA) process as described in TFC-ESHQ-S\_SAF-C-02.

### **3.1.2 Industrial Safety Manager**

The Industrial safety program shall support the integration and implementation of a successful ladder safety program.

- Is the Final Approver competent person training form.
- Evaluates ladder safety program at least annually in accordance with applicable standards.
- Provides Subject Matter Expert (SME) in support of program.
- Provides safety staff in support of field activities.
- Maintains Fixed Ladder website and that pertinent completed forms are available for review by all workers.

### **3.1.3 Fixed Ladder Design Engineer**

- Is responsible for establishing the fixed ladder design requirements and design output documents which accurately reflect the design basis.
- Is responsible for design control and ultimate technical adequacy of the design process.
- Is a qualified person designated to evaluate fixed ladder design specifications.
- Performs “Fixed Ladder OSHA 1910.23 Dimensional Compliance Checklist,” form A-6007-555, for input into the current Engineering record (Smartplant), and email electronic copies of completed forms to ^WRPS Ladder Safety

### **3.1.4 Fixed Ladder Competent Person**

- Completes assigned fixed ladder competent person training, Hammer Course number 044393, “Competent Person Fixed Ladder Inspection.”
- Performs annual ladder condition inspections with ladder owners as assigned.
- Performs annual fixed ladder competent person inspections, complete “Fixed Ladder Condition Inspection Checklist,” form A-6007-561.

NOTE: TOC requests this resource, from Hanford Site Services’ Riggers staffed at Hanford’s Crane and Rigging Services, as designated in contract.

### **3.1.5 Portable Ladder Competent Person**

- Completes assigned portable ladder competent person training, form A-6005-806.

<b>Ladders</b>	<b>Manual Document Page Issue Date</b>	<b>ESHQ TFC-ESHQ-S-STD-01, REV G-1 4 of 23 November 6, 2018</b>
----------------	--	---

- Coordinates annual portable ladder inspections with ladder owners as assigned.
- Performs annual portable ladder competent person inspections and annotate ladder inspection expiration date on each ladder (see purple ladder inspection record label in Attachment A, Figure A-1).
- Safely renders ladders unusable that fail competent person inspections (see figure 1) and disposition appropriately as directed.

### **3.1.6 Job-Made Wooden Ladder Competent Person**

- Completes assigned ladder competent person training, form A-6007-575.
- Coordinates weekly ladder inspections and maintains inspection documentation.
- Performs weekly ladder competent person inspections and annotate ladder inspection tag on each job-made wooden ladder (see purple ladder inspection record label in Figure 5).
- Safely renders job-made wooden ladders unusable that fail competent person inspections and/or when work scope requiring each ladder and disposition appropriately.

### **3.1.7 Portable Ladder User**

- Completes assigned ladder user training.
- Performs pre-use inspection prior to ladder use.
- Stores portable ladders in designated storage locations when not in use.

### **3.1.8 Work Planning and Control**

- Attaches completed Fixed Ladder Condition Inspection Checklist, Form A-6007-561, record in work order closeout process as described in TOC Work Control Procedure, TFC-OPS-MAINT-C-01.

### **3.1.9 Design Engineer**

- Performs Fixed Ladder OSHA Dimensional Compliance inspection according to program requirements.
- Submits completed Fixed Ladder OSHA Dimensional Compliance Checklist, Form A-6007-555, via email to [^WRPS Ladder Safety](#) - to make completed form available to all WRPS staff on the Ladder Safety Website.

## **3.2 General**

1. Alternate methods of gaining access to the work should be evaluated according to the hazard analysis process as described in the JHA process, TFC-ESHQ-S\_SAF-C-02. Examples, such as reach tools, scaffolding or, work platforms, should be evaluated and

substituted for ladder use whenever practical. Workers should conduct an appropriate evaluation of alternative methods/equipment prior to use.

2. **Work activities on a ladder require an evaluation of the hazards** in accordance with DOE-0346; Fall Protection Work Permit (FPWP) when any of the following occur:

- Above 4 feet for General Industry
- Above 6 feet for Construction
- Anytime work occurs above a hazardous condition.

Fixed and portable ladders used for access to elevations over 24 feet shall require fall protection, in accordance with DOE-0346, “Hanford Site Fall Protection Program (HSFPP).” (5.1.7)

3. Training requirements for Individual Ladder User – Ladder Safety Computer Based Training (CBT) course #044391 (or equivalent) will fulfill the training requirements.
4. Training requirements for Competent Person for portable ladders – Must complete Competent Person Portable Ladder Inspection Training CBT course #044392 and course #350433 Form (A-6005-806), in accordance with TFC-ESHQ-S-STD-29. Subcontractors may designate their own competent persons for ladder inspections with approval of the WRPS Industrial Safety Manager.
5. Training requirements for Competent Person for Job-Made Wooden ladders – Must complete Job-Made Wooden Ladder Competent Person Training course #359406 and complete Form A-6007-575 in accordance with TFC-ESHQ-S-STD-29. Subcontractors may designate their own competent persons for job-made wooden ladder inspections with approval of the WRPS Industrial Safety Manager.
6. Personnel shall not use ladders that have exceeded the regular inspection due dates.
7. Job-made wooden ladder repairs may be performed in strict adherence with ANSI A14.4, Job-Made Wooden Ladder Standard and directed by job-made wooden ladder competent person. All other ladder repairs will be as directed by engineering and may or may not be the same as the original design.
8. Any ladders suspected as defective shall not be used. When a suspect ladder is found, immediately control access to suspect ladder and contact your manager to ensure suspect ladder gets inspected by a competent person or properly dispositioned.

### 3.3 Portable Ladders

NOTE: Step stools (32” or less) do not require the annual competent person inspection but do require a pre-use inspection.

1. Managers and supervisors will ensure portable ladders used for site activities meet the following requirements: (5.1.1, 5.1.2, 5.1.3)
- Designed and constructed to meet the applicable standards for ladders.
  - Are labeled on the ladder rail with one of the following classifications:

Duty Rating	Ladder Type	Working Load (pounds)
Special Duty	1AA	375
Extra Heavy Duty	1A	300
Heavy Duty	1	250
Medium Duty	2	225
Light Duty	3	200

2. Managers and supervisors ensure a competent person inspects portable ladders for visible defects on a periodic basis and after any occurrence that could affect their safe use. Frequency of scheduled periodic competent person inspections is not to exceed twelve months, and is determined by factors such as:

- Type and rate of use
- Complexity of the work activity
- Associated hazards
- Seasonal effectiveness and use demands.

3. Storage of portable ladders shall be in a manner that does not cause damage to the ladder or create additional hazards in the work place. At no time should material be placed on a ladder while in storage and never store deficient or suspect defective ladders with program compliant ladders.

Designated ladder storage areas or racks shall:

- Have signs posted at all storage locations with “NOTICE – LADDER STORAGE AREA” sign (see Figure 3) – excluding ladder storage racks on vehicles
- Have sufficient supporting points to avoid excessive ladder sagging
- Have protection from environmental conditions.

NOTE: If a portable ladder is stored in an inaccessible area or hazards exist (e.g., high radiation, contamination), a special entry is not required just to perform the periodic inspection. In such a case, the ladder will be inspected by a competent person prior to use or when it becomes accessible outside the area of existing hazards, whichever is sooner.

4. The competent persons performing periodic inspections for portable ladders will place a dated (expiration date) and signed purple sticker (see Attachment A, Figure A-1) on the inspected ladders. The sticker will be placed on the ladder at the time of inspection. Subcontractors may use the WRPS sticker or their own sticker as long as the information and color is the same. Inspection criteria are contained in Figure 1. This checklist should be used as a guide when performing the inspection but is not required to be maintained as a record.

Portable ladder(s) that fail the competent person inspection described above shall be:

- Immediately rendered completely unusable (safely destroyed), or

- Immediately write legibly in thick black or blue ink, “VOID” over the purple annual inspection label and immediately place in a designated waste container in such a way as to make permanently unavailable for use – intended for ladders inside a contamination area which cannot be safely destroyed or immediately removed from area.

### **3.4 Mobile Ladder Stands** (5.1.2)

1. Mobile ladder stands must be capable of supporting at least four times their maximum intended load, safely sustain the specified load, and be capable of carrying the load under varying circumstances depending upon the conditions of use.
2. Do not move mobile ladder stands or platforms while in use.
3. The maximum work surface height must not exceed four times the minimum base dimensions of any mobile ladder stand.
4. Mobile ladder stands shall have a minimum step width of at least 16 inches, and shall have slip resistant steps and platforms.
5. Units with a top step height of four feet or more shall be equipped with handrails.
6. Mobile ladder stands must be inspected annually by a competent person.

### **3.5 Fixed Ladders**

1. A Fixed Ladder OSHA 1910.23 Dimensional Compliance Checklist (Form A-6007-555) will be completed on each fixed ladder and uploaded into the safety website under the Ladders Section for TOC wide access. This evaluation must be repeated at no more than a five-year interval, and any time there are modifications to a fixed ladder, or before use at locations where radiation and/or chemical hazards exist to maintain ALARA principles. (5.1.2, 5.1.4, 5.1.5)
2. Design Engineering or designee will determine if the fixed ladder meets the OSHA standards. (5.1.2)
  - If the ladder is found to have a manageable deficiency, see Sections 3.5.7 and 3.5.8.
  - If the ladder is found to be defective or unsafe, see Section 3.5.9.
3. Completed pertinent Fixed Ladder OSHA 1910.23 Dimensional Compliance Checklists, form A-6007-555, will be accessible in each work package and a copy be sent to Ladder SME in Industrial Safety Programs to [^WRPS Ladder Safety](#) to make completed form available on the Fixed Ladder Safety Website.
4. The responsible project or facility shall provide a unique identifier for each ladder, and enter the ladder identifier along with the inspection frequency into the work management database (e.g., annual or task-on-demand [TOD]).

<b>Ladders</b>	<b>Manual Document Page Issue Date</b>	<b>TFC-ESHQ-S-STD-01, REV G-1</b>	<b>ESHQ 8 of 23 November 6, 2018</b>
----------------	--	-----------------------------------	--------------------------------------

5. A Fixed Ladder Condition Inspection Checklist, Form A-6007-561, must be completed by a competent person, at minimum, annually, or before use at locations where radiation and/or chemical hazards exist to maintain ALARA principles. Once completed, the inspection form will be accessible in the work package and an electronic copy emailed to Ladder SME in Industrial Safety Programs to ^WRPS Ladder Safety to make completed form available on the Fixed Ladder Safety Website.
6. If the ladder passes the condition inspection, the competent person will complete form A-6007-561 in the work order record and apply a metal tag at eye level on the ladder with the following information:
  - Ladder identifier
  - Inspection expiration date
  - Wording that reads “accepted.”
7. If the fixed ladder has manageable Dimensional Compliance or condition deficiencies that have no direct or immediate relationship to safety or health, the deficiencies can be mitigated to an acceptable level by use of work planning and other administrative controls as determined by a safety professional. Ladders with manageable deficiencies will have signage posted on the ladder which reads “CONTACT FACILITY MANAGEMENT BEFORE USING THIS LADDER” (see Figure 2). The facility will then follow the established process outlined for use of the non-compliant fixed ladders and communicate this process prior to ladder use.
8. Prior to use, a fixed ladder with a manageable condition deficiency will have the Fixed Ladder Use Justification, form A-6006-510, completed with the scope of work to be completed listed and justification for use of the ladder. The form will then be reviewed and signed by Engineering, Safety and the Facility or Building Manager. Once complete, the form will be accessible in the work package.
9. If a fixed ladder is found to be defective during the Condition Inspection or the Dimensional Compliance Inspection, immediate notifications shall be made to the facility manager and the fixed ladder shall be placed out of service by any of the following means:
  - Immediately tagging it with “Danger, Do Not Use,” see Figure 4
  - Blocking access to it (such as with a plywood attachment that spans several rungs).

### **3.6 Job-Made Wooden Ladders**

1. Job-Made Wooden Ladders shall be limited to construction work scope only. Most current versions of American National Standards Institute (ANSI) A14.4, “Safety Requirements for Job-Made Wooden Ladders,” and the OSHA Standard, 29 CFR 1926, Subpart X, “Stairways and Ladders,” apply.
2. Job-made ladders shall be designed, built and installed for each unique installation and use. All job-made ladders shall not be reused and upon end of use, shall be immediately rendered completely unusable (safely destroyed).

3. Company ownership labels or paint stencils shall be clearly legible and affixed in a prominent location (e.g., AEI, FE&C, Fowler, etc.).
4. Job-Made Wooden Ladders shall be inspected and documented, at least weekly prior to use, by a competent person for all, and/or potential defects which could affect the safety of all ladder users. Any occurrence that could affect their safe use or any defect found shall result in the ladder being completely removed from use, or barricaded and tagged: “Danger, Do Not Use” and the Job-Made ladder shall not be used until repair is completed and documented by a competent person.
  - a. Weekly competent person inspection shall be documented on “Job-Made Wooden Ladder Weekly Inspection Tag” (See Figure 5) in plain view of ladder user.
5. Job-made ladders shall be designed, built and installed for each unique installation and use. All job-made ladders shall not be reused and upon end of use, shall be immediately rendered completely unusable (safely destroyed).
6. Job-Made Wooden Ladders user shall verify, prior to use, ladder meets the weekly competent person inspection as documented on inspection tag affixed to ladder.

### 3.7 Records

The following records are discussed in this standard:

- Fixed Ladder Use Justification, Form A-6006-510
- Fixed Ladder OSHA 1910.23 Dimensional Compliance Checklist, Form A-6007-555
- Fixed Ladder Condition Inspection Checklist, Form A-6007-561
- Competent Person – Portable Ladders training documentation, Form A-6005-806
- Competent Person – Job-Made Wooden Ladders training documentation, Form A-6007-575
- Job-Made Wooden Ladders inspection record – see figure 5 below (construction org shall maintain said records).

The record custodian identified in the Company Level Records Inventory and Disposition Schedule (RIDS) is responsible for record retention in accordance with TFC-BSM-IRM\_DC-C-02.

### 4.0 DEFINITIONS

Competent person. One who is capable of identifying existing and predictable hazards of ladder conditions which could lead to injury, and who has authorization to take prompt corrective measures to eliminate any hazard.

Design engineering. The organization(s) responsible for establishing the design requirements and ensuring that design output documents accurately reflect the design basis. Design

Engineering is responsible for design control and ultimate technical adequacy of the design process.

Dimensional compliance evaluation. An evaluation by a qualified person who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience has demonstrated the ability to evaluate fixed ladder design specifications. For figures to reference, see Attachment B.

Extension ladder. A self-supporting portable ladder that is adjustable in length. An extension ladder consists of a trestle ladder base and has a vertically adjustable extension section, with a suitable means for locking the ladders together.

Fixed ladder. A fixed ladder is a ladder permanently attached to a structure, building, or equipment.

Job-Made Wooden Ladder. Job-Made Ladders are custom-made to fit specific job situations during construction or demolition operations. Their primary purpose is to provide access to or egress from a work area. They are not intended to serve as a workstation. They are temporary in nature and serve only until a particular phase of work is completed or until permanent stairways or fixed ladders are ready for use.

Mobile ladder stands and platforms. A self-supporting ladder of fixed size with a platform provided at the working level. The size is determined by the distance along the front rail from the platform to the base of the ladder.

Straight ladder. A non-self-supporting portable ladder, non-adjustable in length and consisting of one section. Its size is designed by overall length of the side rail.

Stepladder. A self-supporting portable ladder, non-adjustable in length, and having flat steps and a hinged back.

Step stool (ladder type). A self-supporting, foldable, portable ladder, nonadjustable in length, 32 inches or less in overall size, with flat steps and without a pail shelf, designed to be climbed on the ladder top cap as well as all steps. The side rails may continue above the top cap.

## **5.0 SOURCES**

### **5.1 Requirements**

- 5.1.1 10 CFR 851, "Worker Safety and Health Program."
- 5.1.2 29 CFR 1910.23, "Ladders."
- 5.1.3 29 CFR 1910.28, "Duty to Have Fall Protection and Falling Object Protection."
- 5.1.4 29 CFR 1910.29, "Fall Protection Systems and Falling Object Protection-Criteria and Practices."
- 5.1.5 29 CFR 1926, Subpart X, "Stairways and Ladders."
- 5.1.6 29 CFR 1926, Subpart T, "Demolition," 1926.851, "Stairs, Passageways and Ladders."

5.1.7 DOE-0346, “Hanford Site Fall Protection Program (HSFPP).”

## **5.2 References**

5.2.1 ANSI A14.1, “Portable Wood Ladders.”

5.2.2 ANSI A14.2, “Portable Metal Ladders.”

5.2.3 ANSI 14.3, “Fixed Ladders.”

5.2.4 ANSI A14.4, “Job-Made Wooden Ladders.”

5.2.5 ANSI A14.5, “Portable Reinforced Plastic Ladders.”

5.2.6 TFC-BSM-IRM\_DC-C-02, “Records Management.”

5.2.7 TFC-ESHQ-S\_SAF-C-02, “Job Hazard Analysis.”

5.2.8 TFC-ESHQ-S-STD-29, “Qualified/Competent Persons.”

**Figure 1. Portable Ladder Inspection Checklist.  
(29 CFR 1910.23 “Ladders.”)**

**Portable Ladders will be inspected for:**

Inspect rails for tightness, and condition.
Inspect all hardware, fittings, and moveable parts for free movement.
Inspect safety feet and auxiliary devices for proper function and condition.
Lubricate metal bearings, locks, wheels, and pulleys.
Ensure ropes are in good condition.
Ensure rungs are non-slip, and clean and free from all grease and oil.
Ensure ladders are free of splinters and sharp edges.
Storage: -Store portable ladders out of the elements. -Store all ladders to allow for easy access. (for use, maintenance and inspection)  -Store ladders transported on vehicles on appropriate storage racks.
Remove all defective, broken or ladders exposed to corrosive material from use for repair or destruction.  Label all defective ladders with, “Danger Do Not Use,” or similar language.

**Figure 2. EXAMPLE: Notice, “Contact Facility Management Before Using This Ladder” Sign.  
Production Operations Sign Shop 373-3032 Recorder No. WRPS-6729.**



Figure 3. Ladder Storage Sign.



Figure 4. Danger, Do Not Use Tag.





<b>Ladders</b>	<b>Manual Document Page Issue Date</b>	<b>TFC-ESHQ-S-STD-01, REV G-1 17 of 23 November 6, 2018</b>	<b>ESHQ</b>
----------------	--	---	-------------

## ATTACHMENT A – PORTABLE LADDER USAGE

1. Employees are required and responsible to observe the following ladder safety precautions:
  - **Do not** attempt to support a portable ladder on boxes, barrels, or similar makeshift devices, or fasten/tie two or more ladders together to achieve greater working heights.
  - **Do not** shift, reposition, or extend portable ladders when the ladder is occupied.
  - **Do not** use ladders with conductive side rails where an employee or a ladder could contact exposed energized parts.
  - **Do not** store damaged or otherwise suspect deficient ladders with good ladders – tagged or not.
  - **Do** avoid over-reaching beyond the side rails or exerting excess weight/force on the portable ladder steps/rungs.
  - **Do** use portable ladders within their established load carrying capacity classification, taking into consideration the stress which may be exerted while performing the task.
  - **Do** use portable ladders only for the purpose for which they are designed.
  - **Do** place the supporting legs of portable ladders on a substantial and level base and ensure the base section has secure footing.
  - **Do not** stand on the top two steps of a stepladder or top four rungs of a non-self-supporting ladder.
  - **Do** set up portable ladders away from unlocked or unguarded doors that may open toward the ladder, and away from moving vehicles/equipment.
  - **Do** maintain the base and top landing (as applicable) around all portable ladders in a clear and unobstructed manner.
  - **Do** use stepladders in the fully open position with the locking devices (braces) set, and using the steps provided.
  - **Do** ensure that shoes, hands, gloves, and the portable ladder steps/rungs are free of oil, grease, mud, or other substances that may pose a slipping hazard.
  - **Do** ensure rungs or steps are slip resistant by design, are coated with skid-resistant material, or treated to minimize slipping.
  - **Do** face the portable ladder and maintain three points of contact while ascending or descending, using both hands to grip the side rails.
  - **Do** check that inspection stickers are current and legible.

## ATTACHMENT A – PORTABLE LADDER USAGE (cont.)

Figure A-1. Sample Portable Ladder Inspection Sticker.

A rectangular inspection sticker with a purple border. The top half has a white background with the text "LADDER INSPECTION RECORD" in large, bold, black capital letters. The bottom half has a purple background. On the left side of the purple background, the text "EXPIRATION DATE 8/31/13" is written in white, bold, capital letters. A horizontal white line separates this text from the text "INSPECTORS NAME" which is written in white, bold, capital letters on the right side of the purple background.

NOTE: Securing the ladder at the bottom can consist of ensuring the feet are stable and will not slip by means of rubber feet, spikes, or cleats nailed to the floor surface. Securing the ladder at the top can consist of tying the ladder to prevent the ladder slipping side to side. Securing the top of a step ladder is not required but may be done as determined by the user.

- When working from a portable straight or extension ladder, ensure that both the top and bottom of the ladder are secure to prevent the ladder from slipping from side to side.
- **Do** support both rails at the top, unless the ladder has a single support attachment.
- **Do not** allow more than one person at a time on the ladder.
- **Do** position single and extension portable ladders as follows:
  - With the weight equally distributed between the two side rails
  - At a pitch so that the horizontal distance from the top support to the foot of the ladder will be approximately one-fourth the vertical distance between these points
  - To prevent slipping or accidental displacement of the unit
  - Against structures or equipment determined to be stable and rigid enough to provide the necessary support.

**ATTACHMENT A – PORTABLE LADDER USAGE (cont.)**

2. Non self-supporting portable ladders being used for temporary access must extend a minimum of three feet past the intended landing, unless a secured grasping device (e.g., grab rail) is provided.
3. When preparing a portable extension ladder for use, ensure that the upper section overlaps the bottom section as follows and the locking clips (stops) are securely in place.

<u>Length of Ladder</u>	<u>Overlap</u>
Up to and including 36 feet	3 feet
Over 36 feet up to and including 48 feet	4 feet
Over 48 feet up to 60 feet	5 feet

4. Store and transport portable ladders in a manner that provides stability, prevents damage and permits easy access for inspection and safe withdrawal for use.
  - When not in use, ladders should be stored on racks or stored in a manner that does not cause damage to the ladder or create additional hazards in the workplace.
  - Ladder racks shall have sufficient supporting points to avoid sagging.
  - Materials shall not be placed on the ladder while it is in storage.
  - Ladders transported in a truck rack shall be positively supported and secured in a fixed position that prevents chafing or abrasion.

ATTACHMENT B – FIXED LADDER DIMENSIONAL CRITERIA

Figure D-2. Side-Step Fixed Ladder Sections.

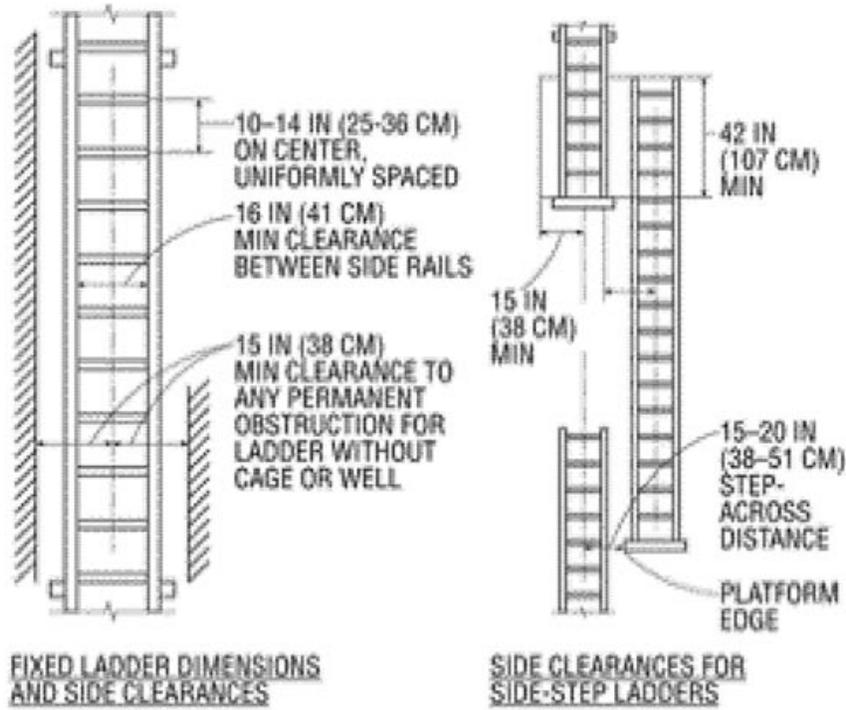
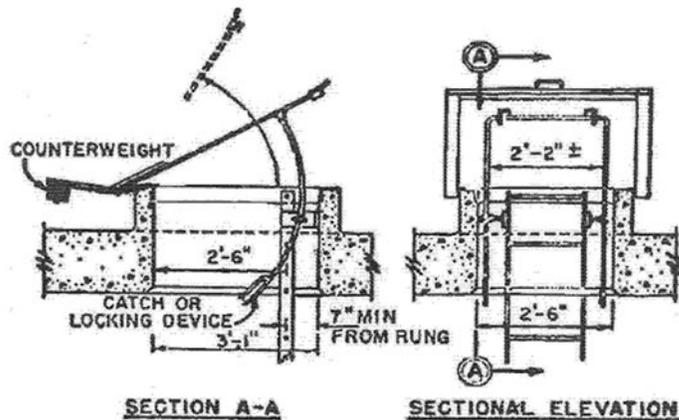
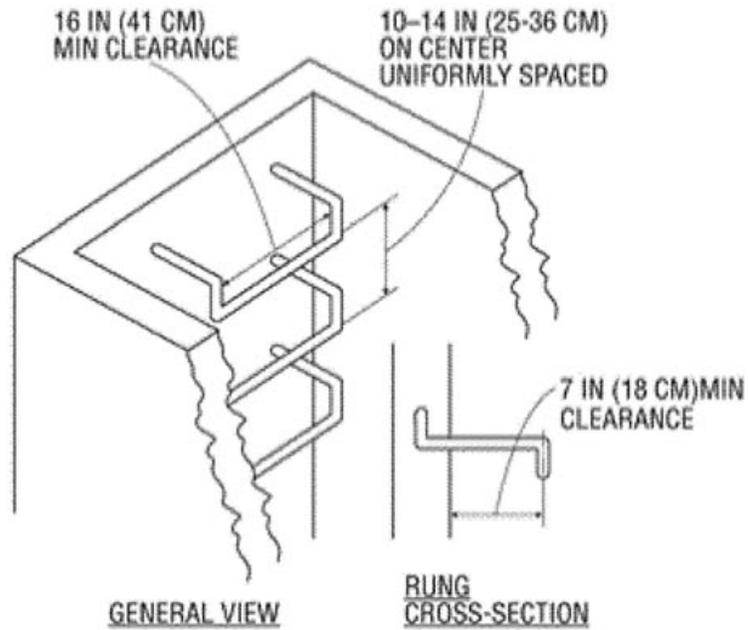


Figure D-3. Example of Counterbalanced Hatch Cover at Roof.



ATTACHMENT B – FIXED LADDER DIMENSIONAL CRITERIA (cont.)

Figure D-4. Individual Rung Ladder.



ATTACHMENT B – FIXED LADDER DIMENSIONAL CRITERIA (cont.)

Figure D-5. Fixed Ladder Clearances.

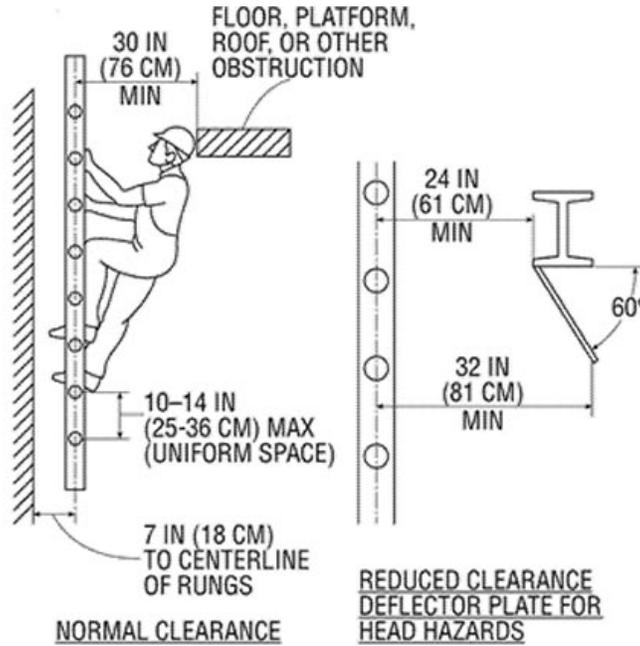
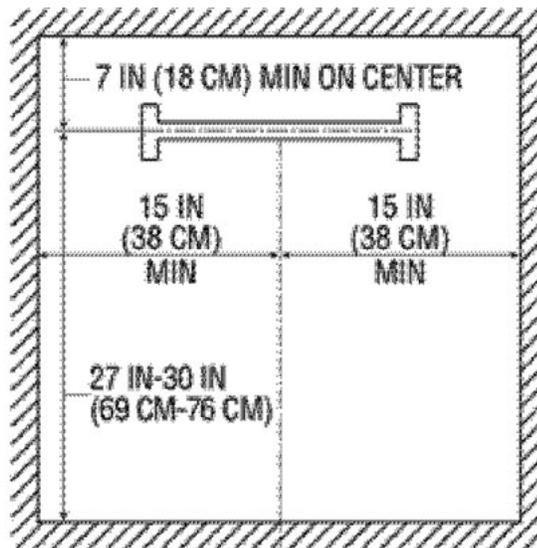


Figure D-14. Clearances for Fixed Ladders in Wells.



ATTACHMENT B – FIXED LADDER DIMENSIONAL CRITERIA (cont.)

Figure D-15. Example of General Construction of Cages.

