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REVISION LOG

Revision	Description	Intent	Non Intent
7	Formatted in accordance with current template. This revision updated safety position description, added clarity to quarterly inspection responsible person(s) and added an interfacing reference for fall protection and prevention.	X	
6	This revision is a complete rewrite; therefore revision bars are not shown. This revision further defines the requirements for the control of UPF construction work processes for the use, inspection and training requirements for portable ladders, either purchased or job-built.	X	
Previous revisions	On record	N/A	N/A

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1.0 INTRODUCTION

1.1 Purpose

This procedure defines requirements for the control of Uranium Processing Facility (UPF) construction work processes for the use, inspection, and training requirements for portable ladders, either purchased or job-built.

1.2 Scope (Applicability)

This procedure applies to all UPF employees performing work on the UPF construction site, including subcontractors.

2.0 RESPONSIBILITIES

NOTE: *When an activity is defined for a certain position in this procedure, a designee may perform the responsibility.*

2.1 Construction Manager

The Construction Manager (CM) has the overall responsibility for ensuring the implementation of this procedure by all UPF construction site personnel.

2.2 Environment, Safety, and Health (ES&H) Manager

The Environment, Safety, and Health Manager has the responsibility for supporting and administering this procedure and verifying compliance.

2.3 Discipline Superintendent

The Discipline Superintendent (DS) is responsible for being knowledgeable of this procedure and ensuring that assigned personnel have reviewed and understand it. The DS is prepared to review and approve fall protection requirements when work is performed at heights of six (6) feet or greater on portable ladders.

2.4 Supervisors

Supervisors are responsible for understanding the requirements of this procedure, and ensuring that assigned workers understand and comply with procedural requirements and instructions.

3.0 PROCESS

3.1 General Information

- Ladders purchased will be vendor-certified as American National Standards Institute (ANSI) Type IA or greater.
- Metal ladders are prohibited on the UPF construction site.
- Tripod ladders (ladders with three legs) are prohibited on the UPF construction site. Only portable ladders having at least four (4) supporting rails or legs are to be used.
- Portable step, straight, and extension ladders are used to reach locations that require inspection, to perform work activities of a short duration, or when other means of access, such as scaffolding, are not feasible.

- Two or more people will not work from the same ladder, unless it is specifically designed for two people.
- Cross-bracing on the rear section of stepladders shall not be used for climbing, unless the ladder is designed for and provided with steps for climbing on both front and rear sections.
- Only approved, nonmetallic ladders will be used during operations where employees may come into contact with electrical circuits or systems.
- Extension ladders are not to be used to support scaffold planking.
- Do not load ladders beyond the manufacturer's rated capacity, including the worker, equipment, and materials.
- Do not place ladders on boxes or boards to gain height.
- All portable ladders will be equipped with nonskid safety feet and will be placed on a stable base.
- The access areas at the top and bottom of ladders in use will be kept clear of obstructions.
- Portable ladders constructed of wood or other absorbing materials are prohibited in chemically or radiologically contaminated areas.

3.2 Portable Ladder Specifications

- Only portable ladders that are vendor-certified as ANSI Type 1A or greater are to be purchased for the UPF construction site. The purchase of fiberglass ladders is recommended.
- Straight ladders will not be longer than 20 feet (6 meters).
- Extension ladders will not be longer than 36 feet (11 meters).
- Stepladders will not be longer than 12 feet (3.7 meters), as determined by the front rail.

3.3 Ladder Use

- Accessing a platform or different elevation from a ladder:
 - A ladder used to access a platform shall have side rails extending 36 inches above the landing. When this is not possible because of the ladder's length, install a grab rail 36 inches above the landing to help workers mount and dismount the ladder.
 - All ladders need to be tied, blocked, or otherwise secured to prevent displacement before accessing different levels.
- The top cap and the top step of a stepladder shall not be used as a step to perform work from. **Appendix B** provides an example of a typical stepladder, including part descriptions.
- Before raising a ladder, evaluate the path of travel to ensure no overhead wires or obstructions exist that could interfere with placing the ladder.
- Face the ladder and maintain a three-point contact when ascending or descending from a ladder.
- When working to the side of a ladder, keep your belt buckle inside the rails of the ladder. Do not over-reach; stability of the ladder can be compromised.
- When working from a ladder and there is potential exposure to a fall of 6 feet or greater, fall protection is required. This includes working above guardrails, around stairs, and next to floor openings. If fall protection is not feasible, contact the DS and ES&H before proceeding.

- Ladders over 12 feet (3.7 meters) in length will be carried by two employees.
- Ladders will be carried with the front portion lower than the rear to minimize impairment of the carriers' vision and reduce the risk of injury to others.
- Do not move, shift, or extend ladders while occupied.
- Maintain ladders free of oil, grease, and other slipping hazards.

3.3.1 Straight or Extension ladders

- Ladders in use will be tied, blocked, or otherwise secured to prevent displacement.
 - When securing the top of a ladder, a second person holds the ladder to prevent displacement while the first person ascends and secures top of ladder.
 - If a ladder cannot be tied-off and secured, establish a barricade and/or spotter to keep traffic or work activities away from the ladder.
- Non-self-supporting ladders shall be set up at the preferred pitch of 75 degrees from horizontal, a ratio of 4:1.
- The top of a non-self-supporting ladder shall be placed with the two rails supported equally, unless it is equipped with a single support attachment.

3.3.2 Step Ladders

- Ladders shall be secured when placed in any location where they can be displaced by workplace activities or traffic (e.g., passageways, doorways, or driveways).
 - If a ladder cannot be secured, establish a barricade and/or spotter to keep traffic or work activities away from the ladder.
- Set ladders with braces fully extended and locked.
- Do not use a step ladder as a straight ladder.
- Ladders shall not be painted, except for the platform and top step (which may be painted to warn users not to step thereon), unless otherwise already labeled or properly demarcated with appropriate warnings by the ladder manufacturer.

3.4 Ladder Construction

- Job-made ladders will comply with the following:
 - Be fabricated in compliance with applicable government regulations;
 - Conform to the general rules applying to the use of manufactured ladders;
 - Be approved for use by the CM and ES&H.

3.5 Ladder Inspection and Storage

3.5.1 Inspections and Storage

- Ladders must be in good condition at all times.
 - Users shall inspect ladders prior to use.
- Bends, dents, cracks, loose or missing rivets, disconnected braces, and corrosion can seriously weaken a ladder.
 - The area around rivet points on fiberglass ladders will be carefully inspected for stress cracks.
- For ladders found to be damaged/defective, remove from service, and tag with a "Damaged Equipment" tag.

3.5.2 Quarterly Inspections

- Ladders shall be inspected by a Competent Person for visible defects on a quarterly basis and after any occurrence that could affect their safe use. The applicable quarter's color will be marked on the side rail as follows:

Quarter	Months	Color
1	January, February March	Yellow
2	April, May, June	Green
3	July, August, September	Red
4	October, November, December	Blue

- The inspection may be started two weeks prior to the start of the next quarter, but is to be completed within the first two weeks after the new quarter has begun.
- Inspections are to be documented on UCN-23238, *Ladder Inspection Sheet*, by a Competent Person, and submitted to Document Management Center (DMC) as a Project record.

3.5.3 Storage and Transportation Ladders

- When not in use, store portable ladders to protect them from the elements and direct sunlight; store ladders away from excessive heat and in areas with good ventilation.
- Storage racks will have sufficient supporting points to avoid sagging. Long ladders need support every 6 feet (1.8 meters).
- Other materials are not to be stored on ladders.
- Ladders being transported by motor vehicles will be properly supported and secured. Supporting points will be made of material such as wood or rubber-covered iron pipe to minimize chafing and the effects of vibration and movement during transport.

4.0 RECORDS

Records generated by this procedure shall be maintained in accordance with Y15-95-800, *UPF Document Management*. Record types for documents submitted to the UPF DMC are identified in ML-PS-801768-A001, *Uranium Processing Facility Project Master Document Type List*. Quality Type is listed as Quality-Lifetime (QA-L), Quality-Nonpermanent (QA-NP), or Non-Quality (Non-QA).

Records generated during the performance of this procedure include:

Record Number	Record Title	Record Holder	System/ Location	Quality Type
UCN-23238	Ladder Inspection Sheet	UPF DMC	InfoWorks	QA-L

5.0 REFERENCES

5.1 Source References

29 CFR 1926 Subpart X, *Stairways and Ladders*, OSHA

ANSI A14.4-1979, *Safety Requirements for Job-Made Ladders*

BNI NS&E ES&H Manual, 4SM-6BH-F0001; Attachment 222, *Portable Ladders Inspection & Control*

5.2 Interfacing References

UPF-CP-212, *Fall Protection and Prevention*

Y15-95-800, *UPF Document Management*

ML-PS-801768-A001, *UPF Project Master Document Type List*

6.0 SUPPLEMENTAL INFORMATION

Appendix A, Acronyms and Definitions

Appendix B, Example of a Typical Stepladder

APPENDIX A Acronyms and Definitions

ACRONYMS:

ANSI	American National Standards Institute
CM	Construction Manager
DS	Discipline Superintendent
ES&H	Environment, Safety, and Health

DEFINITIONS:

ANSI Type IA Ladder	A portable ladder that supports loads a maximum of 300 pounds (136 kilograms).
Competent Person	An individual designated by the DS as knowledgeable in the inspection and repair of ladders.
Extension ladder	A self-supporting portable ladder, adjustable in length consisting of a ladder base and a vertically adjustable extension section, with a suitable means for locking the ladders together.
Maximum intended load	The total load of all employees, equipment, tools, materials, transmitted loads, and other loads anticipated to be applied to a ladder component at any one time.
Portable ladder	A ladder that can be readily moved or carried.
Straight ladder	A self-supporting portable ladder that is not adjustable in length consisting of a ladder base and fixed rails.
Stepladder	A self-supporting, foldable, portable ladder that is nonadjustable in length.

APPENDIX B Example of a Typical Stepladder

