

**NATIONAL WEATHER SERVICE MANUAL 50-1115
SEPTEMBER 15, 2009**

***Safety and Environmental
OCCUPATIONAL SAFETY AND HEALTH***

NOTICE: This publication is available at: <http://www.nws.noaa.gov/directives/>

OPR: W/OPS15 (B. Crenshaw)
Type of Issuance: Routine.

Certified by: W/OPS1 (A. Wissman)

SUMMARY OF REVISIONS: This procedural directive supersedes NWSM 50-1115, dated October 3, 2003. The following revisions were made:

(1) Chapter 1 - Fall Protection: Made editorial changes to the Initial and Recurring Implementation requirements. Added new definitions including “Environmental Hazards,” “Competent Person,” “Qualified Person,” “Safety Net,” “Self-Retracting Lifeline,” and “Warning Line System.” Clarified that Qualified Personnel shall be involved in design of horizontal lifeline and Professional Engineer is often used as qualified personnel. Inserted introductory paragraph to section 1.3.2, Fall Protection Safe Work Practices, stating that the Fall Protection Program Leader (Competent Person) shall be designated at each field office. Added a requirement to section 1.3.2(b) for safety observer to check if lightning is expected to affect the area within a 15-mile radius of a tower or other elevated structure. Removed the requirement to replace/refurbish rescue equipment every five years. Added a note to section 1.3.2(d) to turn in fall protection/rescue equipment that is no longer in use and has not been subjected to stress loading to the site environmental/safety focal point and inform National Oceanic and Atmospheric Administration (NOAA) National Weather Service Headquarters (WSH) about need to collect it. Added a note to section 1.3.2(f) stating that work positioning system is highly recommended for technicians performing maintenance above the azimuth housing. Replaced section 1.3.2(j) with reference to Chapter 14, Walking-Working Surfaces. Added a note stating that fall arrest system components used by NWS climbers are selected by Qualified Personnel and that equipment made by different manufacturers must be verified for compatibility by qualified personnel, vendors or manufacturers. Modified section 1.3.3(b) to state that on roofs 50 feet or less in width, a monitoring system alone without warning line can be used to perform work. Clarified in section 1.3.7(b) that inspection of fall arrest system components and rescue kits shall be ensured. Added new section 1.3.7(d) about inspections of equipment performed during fall protection recertification classes. Added a note to section 1.3.7(e) that self-retracting lifelines purchased by the Weather Forecast Office (WFO) shall be inspected every two years by manufacturer’s approved vendor. Modified section 1.3.9(b) to clarify the frequency of recertification training of NWS climbers. Added a paragraph (3) to 1.3.9(f) to state that comprehensive inspection of fall arrest systems and rescue equipment will be conducted by

instructors with students' participation. Added a note to section 1.3.10 that contractors and employees working on communication towers should review Occupational Safety and Health Administration (OSHA) Compliance Directive 02-01-36. Added two new references to section 1.6 (American National Standard Institute, ANSI 10.32-2004 "Fall protection for the construction and demolition industry" and U.S. Department of Labor, Occupational Safety and Health Administration, Compliance Directive, CPL 02-01-36, "Interim Inspection Procedures during communication tower construction activities"). Made modifications to Attachment A to clarify equipment lifetime. Added specific equipment inspection checklists. Added emergency rescue information to the Attachment C.

(2) Chapter 2 - Working Alone: Clarified section 2.3.3(b) requiring evaluation of hazard (air sampling) before the work is started in the area where accident chemical spill occurred or in poorly ventilated room where chemicals were used. Added a new section 2.3.3(j), Cooperative Observer Program. Added new Attachments D (Cooperative Observer Program Site Safety Review Form) and Attachment E (Sample Cooperative Observer Program Site Safety Review Form). Added a requirement to check if lightning is expected to affect the work area using guidance in Chapter 5.

(3) Chapter 3 - Safe Electrical Work Practices: Modified section 3.3.17 to decrease clear access to the front of 151-600 volt panels from 4 ft. to 3 ft.

(4) Chapter 4 - Control of Hazardous Energy Sources: Expanded definition of "energy source." Modified section 4.3.1(a)(2)(c) to state that documented procedures shall be followed and personal protective equipment which provides effective protection shall be worn while working on energized electrical equipment. Added reference to OSHA 29 Code of Federal Regulations (CFR) Part 1910, Machinery and Machine Guarding. Provided examples of unexpected release of energy to section 4.3(b)(1). Added a note to section 4.3.1(g)(4) stating the equipment that can not be locked out shall be reported to Environmental/Safety focal point or Regional Program personnel if needed. Added a note to section 4.3.1(g)(9) about communication between NWS employees and contractors regarding lock out and tag out. Added new section 4.3.1(g)(12) stating that only the employee who puts the lock out device on can remove it. Added new section 4.3.5 specifying annual evaluation of lock out/tag out procedures. Deleted Attachment D, Lock out/Tag out Procedures for WFO Springfield.

(5) Chapter 5 - Occupant Emergency Plan: This Chapter supersedes Emergency Action Plan procedures. It was completely re-written to address OSHA and Department of Commerce (DOC) Security Manual requirements. Attachment, NWS Lightning Safety Procedures for Employees, was added.

(6) Chapter 6 - Fire Protection: Modified section 6.3.1(o) to state that employees who will perform tasks that could require the use of fire extinguishers should have training and actual practice for the fire hazard. Added a note to section 6.3.3(e) that portable heaters, fans and other devices are prohibited unless authorized by General Services Administration (GSA) building manager. Heaters shall be equipped with tip-over devices. Added new section 6.3.3(k) stating that flammable materials brought in by the contractor must be reviewed for fire protection and incompatibility with materials on site. Added new section 6.3.3(l) stating that any "hot" work will need approval of environmental/safety focal point. Revised section 6.3.5(f) and (g) to clarify requirements for the number of emergency exits at WFOs. Modified section 6.3.5j to

add the requirement to meet “Americans with Disabilities Act (ADA) Standards for Accessible Design” and building codes for the width of corridors, aisles, and door openings. Added new section 6.3.6 to address motel/hotel fire safety for employees on official travel. Added references to “Hotel and Motel Fire Safety Act” and “ADA Standards for Accessible design.” Added a requirement to Attachment C that extension cords may not be used longer than 90 days.

(7) Chapter 8 - Personal Protective Equipment: Clarified section 8.3.1(h) that Personal Protective Equipment (PPE) will be provided at no cost when the need for this equipment is determined by hazard assessment. Modified section 8.3.2(v) to state “exposure to heat or cold weather environment.” Added new paragraph “Cold Weather Environments.” Added a new reference “OSHA Fact Sheet, OSHA 98-55 “Protecting Workers in Cold Environment.”

(8) Chapter 9 - Compressed Gas Safety: Clarified section 9.3.1(j) to state that compressed gas cylinders shall be individually secured with approved restraining device. Modified section 9.3.1(o) to forbid use of adapters on compressed gas containers. Modified the note to section 9.3.4(n) and (h) that manifolds can be used as part of hydrogen fuel cell system at Automated Surface Observing System (ASOS) sites. Added a new section 9.3.4(e) with link to the Liquefied Petroleum Gas (LPG) Propane Gas Tank Checklist on the Office of Operational Systems Operations Division (W/OPS1) web site.

(9) Chapter 10 - Respiratory Protection: Added clarification to section 10.3.8 that employees shall not enter an area where respiratory protection is required without proper training, medical clearance, and fit testing.

(10) Chapter 12 - Confined Space Entry: This Chapter was completely re-written.

(11) Chapter 13, Indoor Air Quality: Added a note to section 13.3.9 stating that although OSHA and Environmental Protection Agency (EPA) do not have specific exposure limits for indoor air quality, the EPA recommends offices not to exceed 10 percent of industrial health exposure limits. Added new section 13.3.11(f) stating that office should ensure that custodial employees are cleaning horizontal surfaces on regular basis.

(12) Chapter 14 - Walking-Working Surfaces: Added a clarification to section 14.3.5(w) and 14.3.6(l) that if work on the ladder can not be performed with both feet and one hand on the ladder, the worker shall use appropriate fall protection method. Added a new section 14.3.8(j) stating that scissor lifts are considered scaffolds when employees are raised to over 10 feet. Added section 14.3.8(e) stating that employees must be tied off (fall arrest) while working in an aerial lift. Added references to section 14.6 for American National Standards Institute (ANSI) and OSHA standards related aerial lifts and work platforms.

(13) Chapter 15 - Battery Charging and Storage Operations: Clarified a requirement related to charging of portable, pressurized eyewash units in the WFO Uninterruptable Power Supply (UPS) room and Emergency Generator Building, Radar Data Acquisition (RDA) Transition Power System (TPS) Shelter and Emergency Generator Shelter. The units do not need to be kept filled and pressurized until personnel or contractors are ready to service the batteries. Deleted a note in section 15.3.5 describing inspections of UPS batteries that are addressed in detail in Engineering Handbook 6.

(14) Chapter 16 - Flammable and Combustible Liquid Storage: Added definition for

“Flammable Storage Cabinet.” Added reference to flammable aerosols to section 16.3.1. Modified section 16.3.1(i) to state that at least one portable fire extinguisher having a rating of not less than 12-B shall be located outside of but no more than 10 ft. from the room that stores flammable and combustible materials.

(15) Chapter 18 - Accident Illness Reporting and Recording: Added Attachment H, Summary of Illness Reporting Requirements. Made substantial revisions to entire chapter to reflect new NOAA web based reporting requirements. Deleted reference to CD-137 that has been replaced with web based reporting system. Added a note about national CD-351 for safety issues impacting all or majority of NWS offices in the Region. Updated mailing address information for submittal of Forms CA-1 and CA-2 to the DOC Worker’s Compensation Center.

(16) Chapter 19 - Hand and Power Tool Safety: Added recommendation to section 19.3.7(12) that electric tools used outside have ground fault interrupt connector device placed on the electrical cord. Added new section 19.3.9, Compressed Air Sources.

(17) Chapter 20 - Machine Guarding: Added a requirement for section 20.3.1 that employees will not remove guards, paneling, or safety interlocks without first locking out energy to equipment. Added new paragraph to section 20.3.5(e) stating that bench and floor grinders must be anchored so that they can not vibrate, walk or fall over.

(18) Chapter 21 - Laser Operations: Add a new reference to OSHA Standard, Guidelines for Laser Safety and Hazard Assessment.

(19) Chapter 22 - Cranes, Hoists, and Slings: Added a new paragraph to section 22.5.2 related to informing contractor providing crane operations about the requirements of this procedure. Pre-work meeting with the contractor must be conducted to ensure that safety rules are understood.

(20) Chapter 23 - Emergency Response Agreements: Added a recommendation to definition of Emergency Response Agreement to have a telephone log of conversations with response organizations if written agreement can not achieved.

(21) Chapter 24 - Safety Training Program: Modified section 24.3.3 to state that Stop Taking Avoidable Risks training has been replaced with online Safety Training for Supervisors. Added new paragraphs to section 24.3.3 about mandatory NOAA Safety and Environmental Compliance Awareness course that must be completed by all newly hired and existing NWS employees annually. Revised section 24.3.3(c) adding a requirement for environmental/safety focal points to take online Safety Training for Supervisors course. Modified section 24.3.3(d) stating all senior management personnel shall take DuPont safety training course. Revised Table 24-1 expanding Office Safety applicability to all NWS employees who are exposed to another employee’s blood or to materials contaminated by blood. Added Attachment C, DuPont and Safety Training Matrix for NWS Organizational Units.

(22) Chapter 25 - Ergonomics: Added Attachment A, Lifting Safety Guidance. Added a reference to the Attachment A in section 25.3.2.

(23) Chapter 26 - Trenching and Excavation Operations: Added a sentence to section 26.3.5 stating that local utilities departments should be contacted before starting the trenching and excavation operations.

(24) Chapter 29 - Small Boat Safety: This chapter was completely revised in accordance with new NOAA Small Boat Safety Policy and Manual.

(25) Chapter 30 - Office Safety: Modified section 30.3.6(a) to clarify that the step stool or ladder shall be used to retrieve an object above shoulder level if it is too heavy to retrieve. Clarified a requirement for use of portable appliances in GSA controlled space. The use is prohibited unless authorized by GSA building manager, NOAA/NWS manager or other federal agencies with delegated authority to perform building management. Heaters shall be equipped with tip-over switch and have automatic shut-off switch. Added paragraph to section 30.3.16(c) stating that extension cords shall be used for a period of time not to exceed 90 days for Christmas decorative lighting and similar purposes.

(26) Chapter 31 - Asbestos Safety: Clarified section 31.3.1 discussing legal standing of EPA's Asbestos Ban and Phase Out Rule. Added recommendation to verify presence of asbestos using Material Safety Data Sheets when purchasing products such as roof felts, vinyl floor tiles, etc. Added new section 31.3.3 describing awareness training requirements for NWS employees (including housekeeping and maintenance personnel) who work in facilities where presence of asbestos is confirmed. If maintenance and housekeeping personnel are to conduct any activities where asbestos is disturbed, additional 14 hours training shall be completed. Added reference to Environmental Management Manual, paragraph 17.6.5.

(27) Chapter 32 - Motor Vehicle Safety: Modified section 32.3.3 (Driving in Winter Conditions) to add situations when employees may drive on higher elevation roads having similar conditions. Clarified the statement to section 32.3.11 related to personal safety that directs not to stop to help a disabled motorist unless involved in vehicle accident. Added a paragraph that cruise control should not be used when road conditions are wet and slick. Added Attachment D, Federal Management Regulation (FMR) Bulletin B-2 Wireless Phone Use in U.S. Government Vehicles. Added section 32.3.12 referencing Attachment D and requirement to follow local restrictions on the cell phone use.

Summary of Changes is published on OPS1 web site:
http://www.ops1.nws.noaa.gov/SAFETY/Safety_manual.htm.

Signed by

September 1, 2009

Mark S. Paese

Date

Director, Office of Operational Systems