BY ORDER OF THE COMMANDER
HILL AIR FORCE BASE (AFMC)

HILL AFB INSTRUCTION 21-106

18 FEBRUARY 1997

Maintenance

SERVICING AIRCRAFT—LIQUID AND GASEOUS OXYGEN SYSTEMS

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

NOTICE: This publication is available digitally on the OO ALC WWW site at: http://scsweb.hill.af.mil pdl/pubs.htm. Personnel with no access to electronic media may view the publication at the Base Master Publications Library, 75 CS/SCSP.

OPR: OO-ALC/LAOTA
Supersedes OO-ALC-HAFBR 66-22, 14 July 1988

Certified by: Thomas H. Browning
Pages: 2
Distribution: F

This instruction implements *AFPD 21-1, Managing Aerospace Equipment Maintenance*. It establishes procedures for the operation and use of oxygen servicing equipment. It applies to the Aircraft Directorate (OO-ALC/LA), the 419th Fighter Wing, and the 388th Fighter Wing.

SUMMARY OF REVISIONS

This revision realigns this publication to the new numbering architecture, changes *AFOSH Standard 127-66* to *AFOSH Standard 91-66*, and updates office symbols. A | indicates revision from previous edition.

1. SCOPE. All instructions in this publication are mandatory and will be strictly adhered to by all personnel who work with aircraft liquid and gaseous oxygen systems. No deviations will be allowed.

2. OPERATION OF OXYGEN SERVICING EQUIPMENT:

2.1. Only fully trained and qualified personnel will perform operation on oxygen servicing equipment in accordance with technical order (TO) 15X-1-1, Maintenance Instructions for Oxygen Equipment, TO 00-25-172, Ground Servicing of Aircraft and Static Grounding Bonding, and *AFOSH Standard 91-66, General Industrial Operations*. Specific aircraft (such as F-16, C-130, etc.) will be serviced IAW TOs that are written for that particular aircraft.

2.2. Daily inspections will be performed in accordance with TO 15X-1-1.

2.3. Anyone discovering a defect in oxygen servicing equipment will ensure use of equipment is discontinued and will report the condition to the foreman or alternate foreman on duty.

2.4. Follow procedures in TO 35D3-1-101, Operators/Service and Repair Instructions--Cart Handtruck, Portable Oxygen Recharger and High Pressure Nitrogen Recharger, regarding filters on gaseous oxygen servicing equipment.

2.5. Before low pressure systems are filled, the pressure will be reduced through a regulator intended for that purpose, ensuring the pressure is below 475 pounds per square inch (PSI). Oxygen servicing carts without a relief valve installed on the low pressure side of a preset 475 PSI gauge will not be used. (See TO 00-25-172.)

2.6. Wrenches will not be used to operate oxygen cylinder valves. If the valve will not operate satisfactory by hand, tag the valve "repairable" and do not use the cylinder.

2.7. Close valves and replace thread protection caps when cylinders are not in use.

2.8. Do not bump, strike, or upset compressed gas cylinders.

2.9. Lifting cylinders by grasping the valve or valve protection cap is prohibited.

2.10. Do not allow oil or grease to come in contact with any oxygen equipment. Keep hands, gloves, and other clothing clean and free from oil and grease.

2.11. It is prohibited to park oxygen servicing equipment under any part of an aircraft which might leak oil on the equipment or an asphalt surface. Place proper drip pans under vents and servicing points to prevent spillage on asphalt surfaces. Use stands and drip pans when servicing oxygen converters that are removed from aircraft. When parked, equipment must be attached to an approved ground at all times. (See *AFOSH Standard 91-66* and TO 00-25-172.)

2.12. Do not adjust leaking couplings, connections, or other fittings until all pressure has been bled from the lines.

2.13. Do not use or store oxygen servicing equipment inside hangers. Extra gaseous oxygen cylinders must be stored and secured against falling in accordance with *AFOSH Standard 91-66* and TO 15X-1-1.

2.14. When servicing liquid oxygen systems, personnel shall wear a hat, face shield, apron, gloves, cuffless trousers, long sleeve shirt or jacket, and shoes with rubber soles and heels which fit closely around the top. The items should be clean and free of grease, oil, and fuel. (See TO 00-25-172.)

MICHAEL D. AMIDAN, Deputy Director
Aircraft Directorate