

30 AUGUST 2004



Maintenance

**LIQUID OXYGEN AND NITROGEN
SERVICING CART CONTROL PROCEDURES**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

NOTICE: This publication is available digitally on the AFDPO WWW site at:
<http://www.e-publishing.af.mil>

OPR: 52 CMS/MXMCA
(MSgt Edmundo L. Garcia)
Supersedes SPANGDAHLEMI 21-128,
26 April 2002

Certified by: 52 CMS/CC (Maj Rob D. Gilchrest)

Pages: 4
Distribution: F

This instruction implements Air Force Policy Directive 21-1, *Managing Aerospace Equipment Maintenance*. It establishes guidance, procedures, and responsibilities for accountability and issuing of liquid oxygen (LOX) and liquid nitrogen (LIN) carts. Proper care and security are the user's responsibility. The user will ensure the equipment is safe and functional prior to operation. Only properly qualified individuals will operate the equipment. This instruction applies to all authorized aircraft maintenance units, support equipment maintenance organizations, and all transient alert personnel on Spangdahlem Air Base. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Manual 37-123, *Management of Records*, and disposed of IAW the Air Force Records Disposition Schedule.

SUMMARY OF REVISIONS

This document is substantially revised and must be completely reviewed.

This revision incorporates specific responsibilities to improve accountability and issuing of LOX and LIN carts.

1. 52d Logistics Readiness Squadron (52 LRS), Fuels Management Flight, Cryogenics Section will:

- 1.1. Store serviceable LOX and LIN carts in the servicing area of building 205, hereafter referred to as "cryogenic storage."
- 1.2. Fill LOX and LIN carts in adherence to Air Force Instruction (AFI) 23-201, *Fuels Management*, and Technical Order (TO) 42B6-1-1, *Quality Control Aviators Breathing Oxygen And Aviators Gaseous Breathing Oxygen*.
- 1.3. Establish and maintain a "ready line" for serviceable LOX and LIN servicing carts.

1.4. Establish and maintain a “hold line” for LOX and LIN servicing carts. Carts will be placed on the hold line for the following conditions:

1.4.1. When a cart is returned to cryogenic storage unserviceable, cryogenic personnel discover discrepancies during cart filling, or discrepancies that cannot be corrected “on the spot” that are discovered on Air Force Technical Order (AFTO) Form 244, **Industrial/Support Equipment Record** or AFTO Form 134, **Aviators Breathing Oxygen Servicing Trailer Log (Liquid/Gaseous)**.

1.4.2. When 52d Component Maintenance Squadron (52 CMS), Electrical-Environmental (E&E) Section (MXMCA) personnel request LOX or LIN carts to be placed on hold line to support deployments or exercises. **NOTE:** 52 CMS/MXMCA will hereafter be referred to as E&E.

1.4.3. When 52d Equipment Maintenance Squadron (52 EMS), Aerospace Ground Equipment (AGE) Section (MXMG) or 52 CMS/E&E personnel request LOX or LIN carts to be placed on hold line for scheduled or unscheduled maintenance. **NOTE:** 52 EMS/MXMG will hereafter be referred to as AGE.

1.4.4. When any LOX cart is considered a “low use trailer”. Information on low use trailers can be found in TO 42B6-1-1.

1.5. Establish adequate servicing hours to cover daily flying operations, night flying operations, and exercises.

1.6. Resolve discrepancies with users when incorrect documentation is discovered on AFTO Form 134 preventing LOX servicing carts from being filled IAW AFI 23-201.

1.7. Notify E&E section when LOX and LIN carts are placed on the hold line (see paragraph 1.4.).

2. 52 CMS/E&E Section will:

2.1. Provide daily status of all LOX and LIN servicing carts to 52 CMS Production Superintendent, 52 CMS Maintenance Superintendent, 52 CMS Accessories Flight Chief, 52 LRS, Fuels Management Cryogenics Section Supervisor, 52 EMS Production Superintendent, AGE Flight, and all fighter squadron Aircraft Maintenance Units (AMU).

2.2. Assign and distribute cryogenic carts between all AMUs based on assigned aircraft. E&E still maintains ownership of carts; distribution to AMUs establishes more direct control for cart availability to support aircraft servicing operations.

2.3. Coordinate with cryogenic storage to place LOX and LIN servicing carts on hold line to support deployments, exercises, or scheduled/unscheduled maintenance (see paragraphs 1.4.2. and 1.4.3.).

2.4. Coordinate with AGE flight to conduct scheduled/unscheduled maintenance on LOX and LIN servicing carts (see paragraph 1.4.3.).

2.5. Notify 52d Fighter Wing (52 FW) Maintenance Operations Center (MOC) or AGE dispatch to transport LOX and LIN servicing carts to cryogenic storage to support deployments or exercises, or for scheduled/unscheduled maintenance (see paragraph 3.3.).

2.6. Notify the 52FW/MOC or AGE dispatch to transport LOX and LIN servicing carts to E&E section for scheduled/unscheduled maintenance (see paragraph 3.3.).

2.7. Resolve LOX and LIN servicing cart AFTO Form 244 documentation discrepancies IAW TO 00-20-1, *Aerospace Equipment Maintenance General Policies and Procedures*, when discovered during scheduled/unscheduled maintenance, or when notified by cryogenic storage as specified in paragraph 1.7.

2.8. Schedule all LOX and LIN servicing cart scheduled maintenance in Core Automated Maintenance System.

3. 52 EMS/AGE Section will:

3.1. Review the AFTO Form 244 prior to moving the cart. If cart contains an open Red X condition, take it to the affected agency as applicable for completion. If the AFTO Form 244 is missing, leave the cart where it is and notify 52 EMS Production Superintendent. The Production Superintendent will notify the affected agency where the cart is located, and this agency is responsible for initiating the Lost Tool/Object Checksheet #13 and a United States Air Forces in Europe (USAFE) Form 145, **Lost Tool/Object Report**.

3.2. Perform a visual walk around inspection to check tires and general condition on all LOX and LIN servicing carts prior to transporting. If damage is found, immediately notify Quality Assurance, 52 EMS Production Superintendent, and the 52 CMS Production Superintendent.

3.3. Transport LOX and LIN servicing carts to servicing and maintenance facilities IAW AFI 21-101, *Aerospace Equipment Maintenance Management*, USAFE Supplement 1 (USAFESup1).

3.4. Document all LOX and LIN servicing cart pickups and drop-offs on AF Form 864, **Daily Requirement and Dispatch Report**.

3.5. Notify E&E section when LOX and LIN servicing carts are brought to AGE for scheduled/unscheduled maintenance (see paragraph 2.1.); notify E&E when cart leaves AGE after maintenance is completed for accurate daily status reporting (see paragraph 2.1.).

4. **52 CMS Production Superintendent will:** Facilitate resolution of issues concerning LOX and LIN servicing carts between E&E section and using agencies.

5. **52 FW/MOC will:** Notify E&E of any cart requiring maintenance and AGE in order to transport the cart to either servicing repair facility as required.

6. All LOX/LIN Using Agencies (AMUs and Transient Alert) will:

6.1. Review AFTO Form 244 on LIN servicing carts, and AFTO Forms 244 and AFTO Form 134 on LOX servicing carts to determine cart serviceability prior to use.

6.2. Perform visual walk-around inspection to check tires, gauges, general condition, and product level prior to use.

6.3. Ensure LIN servicing carts are used only on authorized aircraft and support equipment. F-16 units have been provided specific LIN carts to be utilized only on F-16 emergency power units (EPU). These carts are identified by stenciled letters on front and back of cart stating "EPU USE ONLY."

6.4. AMUs are responsible to coordinate the "borrowing" of LOX and LIN servicing carts with remaining AMUs when their assigned carts are deployed or unserviceable due to scheduled/unscheduled maintenance.

- 6.5. Users are responsible to ensure security of LOX and LIN servicing carts at all times while in their possession and is responsible for transporting cryogenic carts to all other locations not specified in AFI 21-101_USAFESup1.
- 6.6. Ensure AFTO Form 244 and AFTO Form 134 have been properly documented to reflect current status of carts IAW TO 00-20-1 and TO 42B6-1-1.
- 6.7. Ensure all valves on LOX and LIN servicing carts are in proper position (open/closed) IAW TO 15X-1-1, *Oxygen Equipment*, and TO 35D3-6-45-1, *Nitrogen Servicing Unit*.
- 6.8. Ensure LOX and LIN servicing carts do not go below 15 gallons of product prior to turn in to avoid unnecessary purges.
- 6.9. Notify 52FW/MOC when damaged carts are found requiring maintenance or servicing.
- 6.10. Ensure personnel are properly trained on pre-use, servicing, inspection, post-use, “borrowing” and transportation as stated in paragraphs 6.1. through 6.9.
- 6.11. Anyone finding an AFTO Form 134 or AFTO Form 244 missing will notify their respective Production Superintendent and 52 CMS/52 EMS Production Superintendents. The user who has the cart assigned to them is responsible for initiating the Lost Tool/Object Checksheet #13 and a USAFE Form 145.

DAVID L. GOLDFEIN, Colonel, USAF
Commander