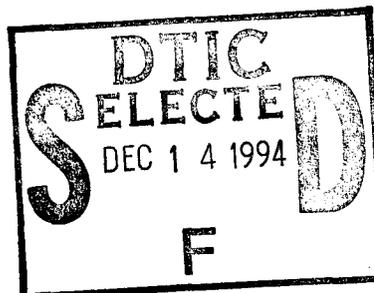




DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE CIVIL ENGINEER SUPPORT AGENCY



8 NOV 1994

FROM: HQ AFCESA/EN
139 Barnes Drive
Tyndall AFB FL 32403-5319

SUBJECT: Engineering Technical Letter (ETL) 94-5: Fire Protection Engineering Criteria and Technical Guidance - Emergency Lighting and Marking of Exits

1. **Purpose.** This ETL provides criteria for emergency lighting and the marking methods for means of egress.
2. **Application.** Requirements of this ETL are mandatory for all new projects and all existing facilities on Air Force installations. Projects awarded for construction prior to the date of this ETL but not accepted into the Air Force inventory may be classified as existing facilities by the MAJCOM fire protection engineer.

NOTE: Use of "shall" indicates a mandatory requirement. "May" or "should" indicates a nonmandatory action or condition.

2.1. **Authority.** This ETL supersedes ETL 91-5, 18 Jun 1991, and incorporates the new requirements of the 1994 edition of NFPA 101. Use this letter together with guidance in MIL-HDBK 1008B.

2.2. **Effective Date:** Immediately. Expires five years from date of issue.

3. **Referenced Publications.**

3.1. MIL-HDBK 1008B, *Fire Protection for Facilities Engineering, Design, and Construction*, 15 January 1994.

3.2. National Fire Protection Association Standard 101 (NFPA 101), *The Life Safety Code*, current edition.

3.3. NISTR 4399, *Evaluation of Exit Signs in Clear and Smoke Conditions*, August 1990.

3.4. CABO/ANSI A117.1, *American National Standard for Accessible and Usable Buildings and Facilities*, 1992.

This document has been approved for release by the Air Force Civil Engineer Support Agency and is available to the public.

19941208 024

3.5. NFPA 110, *Emergency and Standby Power Systems*, 1993.

3.6. AFI 40-201, *Managing Radioactive Materials in the USAF*, 1994.

4. Definitions.

4.1. *Accessible*: Easily entered or vacated by a physically disabled person.

4.2. *Accessible Area of Refuge*: An area of refuge complying with the accessible route requirements of CABO/ANSI A117.1.

4.3. *ADA*: Americans with Disabilities Act.

4.4. *ANSI*: American National Standards Institute.

4.5. *Area of Refuge*: Either:

- A floor of a fully sprinklered building that has at least two accessible rooms or spaces separated from each other by smoke partitioning; *or*
- A space in a means of egress that is protected from the effects of fire and smoke, either by separation from the other spaces in the same building or by virtue of location, thereby permitting delay in egress travel from any level.

4.6. *CABO*: Council of American Building Officials.

4.7. *Emergency Lighting System*: A system capable of providing minimum required illumination (average of 1 foot-candle or 10 lux) for the means of egress. It includes the lighting units, related backup power source(s), and required connections.

4.8. *Existing Facilities*: For this ETL, a facility is existing if changes to be made are cosmetic only.

4.9. *Exit Sign*: For this ETL, exit sign refers to internally illuminated exit signs only.

4.10. *Horizontal Exit*: Either:

- A passage from one building to an area of refuge and access to a means of egress (complying with NFPA 101) in another building on approximately the same level;
or
- A passage through or around a fire barrier (2 hour minimum) to an area of refuge with access to a means of egress (complying with NFPA 101) on approximately the same level in the same building, that affords safety

- Fixtures with internal battery packs that are part of a drop-in light system.
- Fixtures with remote battery packs.

5.1.2. Prohibited Emergency Lighting Systems.

5.1.2.1. New Construction. Do not use fixtures with wall-mounted battery packs.

5.1.2.2. Existing Construction. Remove existing fixtures equipped with wall-mounted battery packs where such fixtures are not required by NFPA 101 or DoD regulations.

NOTE: Do not remove fixtures simply to eliminate wall-mounted battery packs where:

- emergency lighting is required IAW NFPA 101;
and
- fixtures meet minimum NFPA 101 requirements.

5.2. Marking of Exits.

5.2.1. Acceptable Exit Signs.

5.2.1.1. LED. Use LED exit signs with illuminated letters displayed on an opaque background.

5.2.1.1.1. Lettering on all exit signs for an installation shall be one uniform color. Each base shall establish either red or green as the standard lettering color. Installations in or near jurisdictions with established exit sign lettering colors should adopt similar red or green standards. Do not replace existing exit signs meeting minimum NFPA 101 standards simply to standardize sign colors. When signs must be replaced for other reasons, use the installation color.

5.2.1.1.2. Installations overseas may use different colors, pictorials, and/or bilingual lettering as necessary to comply with local national standards. All exit signs must be immediately obvious as an exit marking to a recently transferred or visiting U.S. citizen, or accompanied by a marking complying with NFPA 101, 5-10. At a minimum, locate exit markings IAW NFPA 101, 5-10; additional markings are permitted to comply with host nation standards. The overseas theatre MAJCOM fire protection engineer shall publish a formal standardized policy to implement variations from NFPA 101 and this ETL.

5.2.1.1.3. If an area of refuge or accessible area of refuge requires an illuminated exit sign, identify the area with an illuminated LED sign stating "AREA OF

REFUGE" and displaying the international pictograph for accessibility IAW with CABO/ANSI 117.1.

5.2.2. Prohibited Exit Signs.

5.2.2.1. Radioluminous. AFI 40-201 prohibits use of these signs. Radioluminous signs contain radioactive tritium gas, which is controlled by the Nuclear Regulatory Commission (NRC). Special handling is required for transportation (IAW 49 CFR 173, Subpart I) and disposal.

5.2.2.1.1. Disposal. Signs installed before the 14 May 1986 prohibition for new installations may remain in service until replaced at the end of the ten-year service life. REPLACE ALL SIGNS NO LATER THAN 1 JUNE 1996.

5.2.2.1.2. Records. The facility owner (base real estate office), base fire department, and base bioenvironmental engineering office shall maintain records of the exact location, manufacturer, and installation date for each sign.

5.2.2.1.3. Undamaged Signs. Return undamaged signs removed from service to the manufacturer for disposal. Some manufacturers will accept any manufacturer's signs, usually for a nominal fee. Follow transportation requirements IAW 49 CFR 173 Subpart I when returning signs. If return to a manufacturer is not possible, dispose of signs as radioactive waste. Contact SA-ALC/EMP, 307 Tinker Drive (Bldg 306), Kelly AFB TX 78241-5917, for instructions.

5.2.2.1.4. Damaged Signs. Treat damaged signs as a potential radioactive materials incident and report them immediately through the base radiation safety officer (RSO) to the Radioisotope Committee. The base RSO will direct actions necessary for health and safety.

5.2.2.2. Incandescent. Do not use signs lit by incandescent bulbs in new construction. Existing incandescent signs may remain in service. When replacement is dictated by maintenance or construction requirements, replace the signs with LED exit signs, or refit them with LED conversion units

5.2.3. Locating Illuminated Exit Signs. Do not install exit signs on main entrance/exit doors that are clearly identifiable as exits. Do not install exit signs on other exit doors immediately obvious as exits, with the exception of assembly and mercantile occupancies. A common sense approach is essential to proper marking of the means of egress.

NOTE: NFPA 101 requires floor proximity signs for certain occupancies. Refer to NFPA 101, 5-10.1.5 for specific requirements.

5.2.4. Tactile Signage.

5.2.4.1. Exits. Tactile signs are required at each door to a stair enclosure and at each exit (including horizontal exits) IAW ADA, NFPA 101, 5-10 and CABO/ANSI 117.1. Signs shall have raised or recessed lettering and pictographs (where applicable) in contrasting colors. The sign content shall be in Braille. Locate tactile signs on the latch side of the door, centered at 60 inches above the finished floor.

NOTE: ADA signage requirements include more than just marking of exits and are mandatory for both new and existing facilities.

5.2.4.2. Areas of Refuge. Tactile signs displaying "AREA OF REFUGE" and the international pictograph for accessibility are also required to identify areas of refuge and accessible areas of refuge IAW CABO/ANSI 117.1.

5.2.4.3. Stair Enclosures. Use tactile signs to identify:

- the floor level;
- the terminuses at the top and the bottom of the stair enclosure;
- the floor level of and direction to the exit discharge;

and to present other identifying information (such as "East" or "West").

6. Point of Contact: Ms. Erin A.M. Oneisom, HQ AFCESA/DFE, DSN 523-6329, commercial (904) 283-6329, or FAX 523-6499.



Rita A. Gregory, Ph.D., PE
Director of Systems Engineering

- 2 Atch
- 1. Distribution List
- 2. ETL Index

DISTRIBUTION LIST

AIR FORCE

HQ ACC/CEM 129 Andrews Street, Suite 346 Langley AFB VA 23665-2769	(3)	HQ AFOTEC/DE 8500 Gibson Boulevard SE Kirtland AFB NM 87117-5558	(1)
HQ AETC/CEM/CEOX 266 F Street West Randolph AFB TX 78150-4321	(4)	HQ AFRES/CEM/CEXF 155 2nd Street Robins AFB GA 31098-1635	(3)
HQ AFC4A/TNSE 203 W Losey Street, Room 2000 Scott AFB IL 62225-5238	(1)	HQ AFSA/SEGS 9700 G Avenue SE, Suite 220 Kirtland AFB NM 87117-5670	(1)
HQ AFCEE/CM/DG 8106 Chennault Road Brooks AFB TX 78235-5318	(2)	HQ AFSA/SES 9700 G Avenue SE, Suite 240 Kirtland AFB NM 87117-5670	(1)
HQ AFCESA/DFE 139 Barnes Drive, Suite 1 Tyndall AFB FL 32403-5319	(3)	HQ AFSOC/CE 100 Bartley Street, Suite 218E Hurlburt Field FL 32544-5273	(1)
HQ AFIA/MIE 9700 Avenue G, Suite 351B Kirtland AFB NM 87117-5670	(1)	HQ AFSPC/CEC/CEOF (Stop 4150) 150 Vandenberg Street, Suite 1105 Peterson AFB CO 80914-4150	(4)
HQ AFIT/DEE 2950 P Street Wright-Patterson AFB OH 45433-7765	(1)	HQ AFSVA/SVXSB 10100 Reunion Place, Suite 502 San Antonio TX 78216-4138	(1)
HQ AFMC/CEC 4225 Logistics Ave Wright-Patterson AFB OH 45433-5739	(3)	HQ AIA/LEEEF 102 Hall Boulevard, Suite 241 San Antonio TX 78243-7030	(1)
HQ AFMC/CECS 4225 Logistics Avenue Suite 7 Wright-Patterson AFB OH 45433-5746	(1)	HQ AMC/CES/CEXF 507 A Street Scott AFB IL 62225-5022	(4)
HQ AFMSA/SGSF 2504 Gillingham Drive Suite 2 Brooks AFB TX 78235-5105	(1)	HQ AU/DEE 400 Cannot Street Maxwell AFB AL 36112-6523	(1)
HQ AFOMS/SGS Brooks AFB TX 78235-5000	(1)	HQ PACAF/CEM/CEOOF 25 E Street, Suite D-302 Hickam AFB HI 96853-5412	(4)

DISTRIBUTION LIST (Continued)

HQ USAFE/RSIO/RSIXF Unit 3050, Box 10 APO AE 09094-5010	(4)	SSC/SBEE 201 East Moore Drive (Gunter Annex) Maxwell AFB AL 36114-3005	(1)
HQ USAFA/CEE/CEF 8120 Edgerton Drive, Suite 40 USAF Academy CO 80840-2400	(2)	SMC/CE 2420 Vela Way, Suite 1467 Los Angeles AFB CA 90245-4659	(1)
HQ USAF/CEC 1260 Air Force Pentagon Washington DC 20330-1260	(1)	WL/FIVCF 139 Barnes Drive, Suite 2 Tyndall AFB FL 32403-5319	(1)
ACC CES/ESPW/ESO 11817 Canon Boulevard, Suite 500 Crestar Bank Building Newport News VA 23606-2558	(2)	7 CG/XPGF 1600 Air Force Pentagon Washington DC 20330-1600	(1)
ANGRC/CEE/CEEU 3500 Fetchet Avenue, Bldg 3500 Andrews AFB MD 20331-5157	(2)	11 SPT GP/CEM 1 McChord Street, Suite 208 Bolling AFB DC 20332-5109	(1)
ASC/EMF 2060 Third Street Wright-Patterson AFB OH 45433-7203	(1)	645 CES/CECEUM 5151 Wright Avenue Wright-Patterson AFB OH 45433-5339	(1)
DET 10 SMC/CE 1111 East Mill Street San Bernardino CA 92408-1621	(1)	649 CES/CEE0B 7302 Wardleigh Road Hill AFB UT 84056-5223	(1)
ESC/CEE 20 Schilling Circle Hanscom AFB MA 01731-2817	(1)	1100 NCR SPT GP/DOL 1410 Air Force Pentagon (5E1078) Washington DC 20330-1430	(1)
HQ NGB/CEP/CEO 3500 Fetchet Avenue Andrews AFB MD 20331-5157	(1)		

ARMY

Chief of Engineers Department of the Army Attn: CEMP-EA/Mr. Rick Dahnke 20 Massachusetts Avenue NW Washington DC 20314-1000	(2)	USACE/CEEC-EM 20 Massachusetts Avenue NW USACE Washington 20314-1000	(1)
---	-----	--	-----

DISTRIBUTION LIST (Continued)

USACE/CEMP-ET 20 Massachusetts Avenue NW USACE Washington 20314-1000	(1)	USACE/CETAD-EC-TM PO Box 2250 Winchester VA 22601-0000	(1)
--	-----	--	-----

NAVY

NAVFAC (Code 150) 200 Stovall Street Alexandria VA 22332-0000	(1)	NORTHNAVENGCOM Code 406 10 Industrial Highway, Mail Stop 82 Lester PA 19113-2090	(1)
---	-----	---	-----

LANTNAVFACENGCOM Code 04C 1510 Gilbert Street Norfolk VA 23511-2699	(1)	NAVFACENGCOM Northern Division, Code 408 10 Industrial Highway, Mail Stop 82 Lester PA 19113-2090	(1)
--	-----	--	-----

NAVFACENGCOM Atlantic Division, Code 408 Building N-26 Norfolk VA 23511-6287	(1)	SOUTHNAVFACENGCOM Code 406 DPD 1255 Eagle Drive North Charleston SC 29419-9010	
---	-----	---	--

NAVFACENGCOM Chesapeake Division, Code 408 Washington Navy Yard, Building 212 Washington DC 20374-2121	(1)	NAVFACENGCOM Southern Division, Code 4043 PO Box 190010 North Charleston SC 29419-9010	
---	-----	---	--

PACNAVFACENGCOM Code 406 Bldg 258 Makalapa Pearl Harbor HI 96860-7300	(1)	SOUTHWESTNAVFACENGCOM Code 406 1220 Pacific Highway Building 130 San Diego CA 92132-5188	(1)
--	-----	---	-----

NAVFACENGCOM Pacific Division, Code 408 Pearl Harbor HI 96860-7300	(1)	NAVFACENGCOM Southwest Division, Code 408 1200 Pacific Highway San Diego CA 92132-5190	(1)
--	-----	---	-----

WESTNAVFACENGCOM Code 406 900 Commodore Drive San Bruno CA 94066-2402	(1)	ENGFLDACT Chesapeake Code 406 901 M Street SE, Building 212 WNY Washington DC 20374-5018	(1)
--	-----	---	-----

NAVFACENGCOM Western Division, Code 09K San Bruno CA 94066-2402	(1)	ENGFLDACT NW Code 04B 3505 NW Anderson Hill Road Silverdale WA 98383-2366	(1)
---	-----	--	-----

DISTRIBUTION LIST (Continued)

ENGFLDACT MED Code N4 PSC 810 Box 51 FPO AE 09619-9951	(1)	ENGFLDACT MW Code 420 Building 1A Great Lakes IL 60088-5600	(1)
---	-----	--	-----

DEPARTMENT OF DEFENSE

Defense Commissary Agency Director of Facilities 2250 Floulis Street, Bldg 8400 Lackland AFB TX 78236-1039	(1)	Defense Logistics Agency HQ DLA-MMMDI-RPM Cameron Station Building 4, Room 4D356 Alexandria VA 22304-0000	(1)
---	-----	---	-----

AAFES/ATTN: CFE PO Box 660320 Dallas TX 75266-0320	(1)	Defense Mapping Agency HQ DMA (HRH) 8613 Lee Highway, Mail Stop A8 Fairfax VA 22031-2137	(1)
--	-----	---	-----

Defense Technical Information Center ATTN: DTIC-FDA Alexandria VA 22034-6145	(1)	USMC/LLF-1 3033 Wilson Boulevard Washington DC 22201-0000	(1)
---	-----	---	-----

SPECIAL INTEREST ORGANIZATIONS

IHS (A.A. DeSimone) 1990 M Street NW, Suite 400 Washington DC 20036	(1)	Construction Criteria Database National Institute of Building Sciences 1201 L Street NW, Suite 400 Washington DC 20005	(1)
---	-----	---	-----

ENGINEERING TECHNICAL LETTERS (ETL)

SECTION A - CURRENT ETLs

ETL Number	Title	Date Issued
83-1	Design of Control Systems for HVAC Change No. 1 to ETL 83-1, U.S. Air Force Standardized Heating, Ventilating & Air Conditioning (HVAC) Control Systems	16 Feb 83 22 Jul 87
83-3	Interior Wiring Systems, AFM 88-15, Para 7-3	2 Mar 83
83-4	EMCS Data Transmission Media (DTM) Consolidations	3 Apr 83
83-7	Plumbing, AFM 88-8, Chapter 4	30 Aug 83
83-8	Use of Air-to-Air Unitary Heat Pumps	15 Sep 83
83-9	Insulation	14 Nov 83
84-7	MCP Energy Conservation Investment Program (ECIP)	13 Jun 84
84-10	Air Force Building Construction and the Use of Termiticides	1 Aug 84
86-2	Energy Management and Control Systems (EMCS)	5 Feb 86
86-4	Paints and Protective Coatings	12 May 86
86-5	Fuels Use Criteria for Air Force Construction	22 May 86
86-8	Aqueous Film Forming Foam Waste Discharge Retention and Disposal	4 Jun 86
86-9	Lodging Facility Design Guide	4 Jun 86
86-10	Antiterrorism Planning and Design Guidance	13 Jun 86
86-14	Solar Applications	15 Oct 86
86-16	Direct Digital Control Heating, Ventilation, and Air Conditioning Systems	9 Dec 86
87-1	Lead Ban Requirements of Drinking Water	15 Jan 87
87-2	Volatile Organic Compounds	4 Mar 87
87-9	Prewiring	21 Oct 87
88-2	Photovoltaic Applications	21 Jan 88
88-3	Design Standards for Critical Facilities	15 Jun 88
88-4	Reliability & Maintainability (R&M) Design Checklist	24 Jun 88
88-6	Heat Distribution Systems Outside of Buildings	1 Aug 88
88-9	Radon Reduction in New Facility Construction	7 Oct 88
89-2	Standard Guidelines for Submission of Facility Operating and Maintenance Manuals	23 May 89
89-6	Power Conditioning and Continuation Interfacing Equipment (PCCIE) in the Military Construction Program (MCP)	7 Sep 89

ENGINEERING TECHNICAL LETTERS (ETL)

SECTION A - CURRENT ETLs

ETL Number	Title	Date Issued
89-7	Design of Air Force Courtrooms	29 Sep 89
90-1	Built-Up Roof (BUR) Repair/Replacement Guide Specification	23 Jan 90
90-2	General Policy for Prewired Workstations and Systems Furniture	26 Jan 90
90-3	TEMPEST Protection for Facilities Change 1 Ref: HQ USAF/LEEDE Ltr dated 20 April 90, Same Subject	23 Mar 90
90-4	1990 Energy Prices and Discount Factors for Life-Cycle Cost Analysis	24 May 90
90-5	Fuel and Lube Oil Bulk Storage Capacity for Emergency Generators	26 Jul 90
90-6	Electrical System Grounding, Static Grounding and Lightning Protection	3 Oct 90
90-7	Air Force Interior Design Policy	12 Oct 90
90-8	Guide Specifications for Ethylene Propylene Diene Monomer (EPDM) Roofing	17 Oct 90
90-9	Fire Protection Engineering Criteria for Aircraft Maintenance, Servicing, and Storage Facilities	2 Nov 90
90-10	Commissioning of Heating, Ventilating, and Air Conditioning (HVAC) Systems Guide Specification	17 Oct 90
91-1	Fire Protection Engineering Criteria Testing Halon Fire Suppression Systems	2 Jan 91
91-2	High Altitude Electromagnetic Pulse (HEMP) Hardening in Facilities	4 Mar 91
91-4	Site Selection Criteria for Fire Protection Training Areas	14 Jun 91
91-6	Cathodic Protection	3 Jul 91
91-7	Chlorofluorocarbon (CFC) Limitation in Heating, Ventilating and Air-Conditioning (HVAC) Systems	21 Aug 91
93-1	Construction Signs	11 Mar 93
93-2	Dormitory Criteria for Humid Areas	13 Jul 93
93-3	Inventory, Screening, Prioritization, and Evaluation of Existing Buildings for Seismic Risk	18 Aug 93
93-4	Fire Protection Engineering Criteria - Automatic Sprinkler Systems in Military Family Housing (MFH)	11 Aug 93

ENGINEERING TECHNICAL LETTERS (ETL)

SECTION A - CURRENT ETLs

ETL Number	Title	Date Issued
93-5	Fire Protection Engineering Criteria - Electronic Equipment Installations	22 Dec 93
94-1	Standard Airfield Pavement Marking Schemes	5 Apr 94
94-2	Utility Meters in New and Renovated Facilities	10 Jun 94
94-3	Air Force Carpet Standard	10 Jun 94
94-4	Energy Usage Criteria for Facilities in the Military Construction Program	19 Aug 94
94-5	Fire Protection Engineering Criteria and Technical Guidance - Emergency Lighting and Marking of Exits	8 Nov 94

ENGINEERING TECHNICAL LETTERS (ETL)

SECTION B - OBSOLETE ETLs

ETL Number	Date	Status
82-1	10 Nov 82	Superseded by ETLs 83-10, 86-1, 87-4
82-2	10 Nov 82	Superseded by AFEPPM 88-10
82-3	10 Nov 82	Superseded by ETLs 83-5, 84-2
82-4	10 Nov 82	Superseded by ETL 84-7
82-5	10 Nov 82	Superseded by ETLs 84-1, 86-13, 86-14
82-6	30 Dec 82	Cancelled
82-7	30 Nov 82	Cancelled
83-2	16 Feb 83	Superseded by ETL 84-3
83-5	5 May 83	Superseded by ETL 84-2
83-6	24 May 83	Cancelled
83-10	28 Nov 83	Superseded by ETL 86-1
84-1	18 Jan 84	Superseded by ETL 86-14
84-2	27 Mar 84	Superseded by ETL 94-4
84-3	21 Mar 84	Cancelled
84-4	10 Apr 84	Superseded by ETLs 86-7, 86-15, 87-5
84-5	7 May 84	Superseded by ETLs 84-8, 86-11, 86-18, 88-6
84-6	Not Issued	Cancelled/Not Used
84-8	19 Jun 84	Superseded by ETL 86-11
84-9	5 Jul 84	Superseded by ETL 88-7
88-5	2 Aug 88	Superseded by ETL 91-6
86-1	3 Feb 86	Superseded by ETL 87-7
86-3	21 Feb 86	Superseded by ETL 86-4
86-6	3 Jun 86	Superseded by ETLs 86-11, 86-18, 88-6
86-7	3 Jun 86	Superseded by ETL 86-15
86-11	3 Jul 86	Superseded by ETL 88-6
86-12	3 Jul 86	Superseded by ETL 90-2
86-13	18 Aug 86	Superseded by ETL 86-14
86-15	13 Nov 86	Superseded by ETL 87-5
86-17	17 Dec 86	Superseded by ETL 89-6
86-18	18 Dec 86	Superseded by ETL 88-6
87-3	12 Mar 87	Superseded by ETLs 87-6, ETL 88-5
87-4	13 Mar 87	Superseded by ETL 94-4
87-5	13 July 87	Superseded by ETL 94-2
87-6	21 Aug 87	Superseded by ETL-88-5
87-7	14 Oct 87	Superseded by ETL 89-1
87-8	19 Oct 87	Superseded by ETL 90-1
88-1	5 Jan 88	Superseded by ETL 89-2
88-5	2 Aug 88	Superseded by ETL 91-6

ENGINEERING TECHNICAL LETTERS (ETL)

SECTION B - OBSOLETE ETLs

ETL Number	Date	Status
88-7	24 Aug 88	Superseded by ETLs 90-3, 91-2
88-8	4 Oct 88	Superseded by ETL 91-7
88-10	29 Dec 88	Cancelled
89-1	6 Feb 89	Superseded by ETL 90-4
89-3	9 Jun 89	Superseded by ETL 93-5
89-4	6 Jul 89	Cancelled
89-5		Issued as ETL 90-7
90-4	24 May 90	Cancelled
91-3	14 Jun 91	Superseded by MIL HDBK 1008B, Jan 94
91-5	18 Jun 91	Superseded by ETL 94-5
91-8	24 Sep 91	Cancelled

CONSTRUCTION TECHNICAL LETTERS (CTL)

SECTION C - CURRENT CTLs

CTL Number	Title	Date Issued
88-2	DD Form 1354 Checklist	6 Jan 88
88-7	Constructibility Review Checklist	1 Nov 88
89-1	Thirty-Percent Design Submittal	10 Apr 89
89-2	MAJCOM Construction Management	30 May 89
89-3	Warranty and Guarantee Program	22 Sep 89
90-1	Management of the MILCON Planning and Execution Process	6 Mar 90
90-2	Definitions for Design Milestones	13 Mar 90

SECTION D - OBSOLETE CTLs

CTL Number	Status
87-1	Superseded by CTL 88-3
88-1	Superseded by CTL 90-1
88-3	Superseded by ETL
88-4	Replaced by Electronic Data File and Documentation in PDC/WIMS
88-5	Superseded by CTL 90-2
88-6	Issuance Cancelled