



DoD Fuels Discipline Working Group (DWG) Overview

Who we are and how we support the Fuels
Facilities Enterprise

Topics



- What is the Fuels DWG, who are they and what do they do?
- Applicable Fuels Unified Facilities Criteria and updates
- Applicable Fuels Unified Facilities Guide Specification updates
- Standard Designs
- Q & A Session

What is the DoD Fuels DWG?



- DOD FUELS DISCIPLINE WORKING GROUP (FDWG)
 - Previously known as the Fuels Facility Engineering Panel (FFEP)
 - Establishes the criteria for the DoD community on ways to provide safe, operationally effective, and economic fuel facilities systems to meet the mission requirements
 - Examines, develops, recommends and provides design features for the standardization of facilities and equipment, and procedures used in fuel handling systems for storage, distribution, maintenance and dispensing of aircraft, marine, and ground fuels
 - FDWG meetings are a forum to update members on new equipment, DoD or service-specific programs, and changes affecting the fuels facility maintenance, repair and construction community

Fuels DWG



Membership

DWG Members				
Component	Name	Chair	Organization	Yrs. on DWG
Army	<i>Tim Gordon</i>		USACE	3
Navy	<i>Frank Kern</i>	X	NAVFAC	5
Air Force	<i>Jim Works</i>		AFCEC	6
DLA	<i>Amanda Muscavage</i>		DLA Energy, Facility Sustainment	2

DWG Associate Members	
Component/ Agency	Name
USACE	<i>Dustin Scheuffele</i>
Navy	<i>Patrick Hauk</i>
AFCEC	<i>Stephen Godbee</i>

Executive Service Engineering Panel Members	
Component/ Agency	Name
Army	<i>Thomas P Smith, P.E., SES</i>
Navy	<i>S. Keith Hamilton, P.E., SES</i>
Air Force	<i>Thomas P Brown, SES</i>
OSD	<i>Mark S Sinder, SES</i>

FDWVG Meetings



- Twice per year – Spring and Fall in-person and Teams
 - Attend by DWG members and Associates
 - Attended by representatives of Service Control Points
 - One at DLA Headquarters; One at a different DoD locations
 - Discuss document changes in work
 - Review and adjudicate Criteria Change Requests (CCR)
 - Discuss new technologies or practices in commercial world

New Program Structure: UFC, UFS, UFM



The UFC Program delivers consistent technical content through three types of unified components:

- **Unified Facilities Criteria (UFC):** Technical requirements, laws, and policies applicable across all DoD Components. This criterion is considered mandatory unless a waiver or exemption is granted by Executive Service Engineering Panel (ESEP). UFC may contain Commentary as indicated by [C]. This Commentary is helpful information to expand upon the UFC criteria.
- **Unified Facilities Supplement (UFS):** Supplemental information that supports UFCs with guidance, best practices, checklists, procedures, or component-specific needs. This is not mandatory criteria and is provided For Information Only (FIO). UFS content may be referenced or incorporated into project documents at the discretion of project delivery teams but are not binding unless explicitly included in contract requirements.
- **Unified Facilities Operations & Maintenance Manual (UFM):** Operations and maintenance manuals that guide implementation and may expand on requirements elsewhere. UFM content may be referenced or incorporated into operations, maintenance, or project documentation at the discretion of project delivery teams, but it is not binding unless explicitly included in contract requirements.



Non-Unified Content: FC, FS, FM

When content is developed for a specific agency or limited audience, it is reclassified as:

- **Facilities Criteria (FC):** Non-unified counterpart to UFC, tailored to specific facility or Component needs.
- **Facilities Supplements (FS):** Non-unified counterpart to UFS, providing Component-specific technical or contextual content. This is not criteria and is provided For Information Only (FIO).
- **Facilities Manuals (FM):** Non-unified counterpart to UFM, delivering O&M content for Component-specific requirements.

Non-unified documents include a letter at the end of their number to show the sponsoring Component:

- **A** — U.S. Army Corps of Engineers (USACE)
- **N** — Naval Facilities Engineering Systems Command (NAVFAC)
- **F** — Air Force Civil Engineer Center (AFCEC)

If applicable to multiple agencies, multiple letters are used (e.g., AF for Army and Air Force).



Glossary, References, and UFGS

Glossary and References

- Glossary terms will no longer be included at the end UFCs. Instead, you may find this information at the following:
<https://www.wbdg.org/dod/ufc/ufc-glossary-master>

Unified Facility Guide Specifications (UFGS)

- No Change to this part of program
- The UFGS are only published in electronic format and are intended to be used with SpecsIntact software
- UFGS are posted quarterly in February, May, August, and November.
- UFGS that have been unified for use by all participating agencies have a level 3 or level 4 Section number.
- UFGS uses level 5 to identify a single-agency specification. The number "10" is used by USACE, "20" by NAVFAC, and "30" by AFCEC.

FDWG Guidance Documents



- Changing Unified Facilities Criteria (UFC) Formats
 - Criteria (UFC), Standards (UFS) and Manuals (UFM)
- Unified Facilities Criteria
 - UFC 1-200-01, DoD Building Code and Core UFC
 - UFC 3-460-01, Design: Petroleum Systems – Revising to UFC 3-460-01 and UFS 3-460-01 in to be published October 2026
 - UFM 3-460-03, Petroleum Fuel Systems Maintenance – Published 9 March 2026 – No Changes from last UFC
 - UFC 4-310-03, DoD Fuels Laboratory Standards – Revise to UFC and UFS to be published in October 2026
 - UFC 3-430-05, Natural Gas And Liquefied Petroleum Gas (LPG) Distribution Pipelines – Revision by 4th Quarter 2026 adding LNG chapter and split to UFC and UFS
- Can be found at <https://www.wbdg.org/dod>

FDWG Guidance Documents



- UFC 3-460-01, DESIGN: PETROLEUM FUEL FACILITIES
 - Current Version 16 July 2019, Change 3, 8 June 2023
 - CHAPTER 1 INTRODUCTION
 - CHAPTER 2 GENERAL DESIGN REQUIREMENTS
 - CHAPTER 3 BULK FUEL STORAGE FACILITIES
 - **CHAPTER 4 AIRCRAFT FUELING FACILITIES**
 - **CHAPTER 5 MARINE AND DISPENSING FACILITIES**
 - **CHAPTER 6 INTERTERMINAL AND INSTALLATION PIPELINES**
 - CHAPTER 7 GROUND PRODUCTS FUELING FACILITIES
 - **CHAPTER 8 ATMOSPHERIC STORAGE TANKS**
 - CHAPTER 9 PIPING SYSTEMS
 - CHAPTER 10 ALTERNATE POL FACILITIES
 - CHAPTER 11 SUPPORT FACILITIES
 - **CHAPTER 12 MAJOR REHABILITATION**
 - CHAPTER 13 FUELING FACILITY TEMPORARY DEACTIVATION
 - CHAPTER 1 INTRODUCTION
 - CHAPTER 15 FUEL SYSTEM COMPONENTS
 - CHAPTER 16 AUSTERE LOCATION FUEL SYSTEM REQUIREMENTS
 - APPENDIX A MANUAL SURGE CALCULATIONS FOR SIMPLE PIPING SYSTEMS
 - APPENDIX B CHARTER OF DOD FUELS DISCIPLINE WORKING GROUP (FDWG)
 - APPENDIX C PLATES

FDWG Guidance Documents



- UFM 3-460-03, PETROLEUM FUEL SYSTEMS MAINTENANCE
- Current Version 9 March 2026
 - CHAPTER 1 INTRODUCTION
 - CHAPTER 2 GENERAL
 - CHAPTER 3 BULK TRANSFER FACILITIES
 - CHAPTER 4 AIRCRAFT FUELING FACILITIES
 - CHAPTER 5 MARINE RECEIVING AND DISPENSING FACILITIES
 - CHAPTER 6 PIPING SYSTEMS
 - CHAPTER 7 GROUND VEHICLE FUELING FACILITIES
 - CHAPTER 8 PETROLEUM STORAGE TANKS
 - CHAPTER 9 ELECTRICAL SYSTEMS
 - CHAPTER 10 ALTERNATE POL FACILITIES
 - CHAPTER 11 SUPPORT FACILITIES
 - CHAPTER 12 FUEL FACILITY TEMPORARY DEACTIVATION OR CLOSURE
 - APPENDIX A – DLA ENERGY PROJECT PROGRAMMING
 - APPENDIX B CONTAINMENT INTEGRITY TESTING CHECKLIST
 - APPENDIX C – MAINTENANCE TABLE
 - APPENDIX D – MAINTENANCE PROCEDURES
 - APPENDIX E – TANK INSPECTION CHECKLISTS
 - APPENDIX F – TANK INSPECTION CHECKLISTS
 - APPENDIX G – PETROLEUM FUEL PIPELINE PRESSURE TESTING GUIDELINES AND CRITERIA
 - APPENDIX H – TANK CLEANING GUIDANCE
 - APPENDIX I – ACRONYMS
 - APPENDIX J – REFERENCES

FDWG Guidance Documents



- UFC 4-310-03, DoD Fuels Laboratory Standards
 - Current Version 12 August 2020
 - Design Guide for all new labs
 - Basic Lab Requirements
 - Type A Testing Lab
 - Type B Testing Lab
 - Type C Testing lab
 - C++ is typical at AFB
 - Change was in process to eliminate emergency showers/sunken floors-stuck in reformat process
- UFC 3-430-05 Natural Gas And Liquefied Petroleum Gas (LPG) Distribution Pipelines
 - Current Version 26 Feb 2021
 - New or modifications to existing distribution pipelines owned by Government that convey natural gas, manufactured gas, or LPG in the vapor phase
 - Being updated to add Liquid Natural Gas (LNG) plants
 - Significant rework with UFC Reformat effort

FDWG Guidance Documents



Document Number	Title	DWG	Date Published	Change Date
UFGS 01 33 23.33	Aviation Fuel System Specific Submittal Requirements, Chg 1	Fuels	8/1/2018	2/1/2021
UFGS 01 78 23.33	Operation and Maintenance Manuals For Aviation Fuel Systems	Fuels	8/1/2018	2/1/2021
UFGS 02 65 00	Underground Storage Tank Removal	Fuels	11/1/2022	
UFGS 05 59 10	Rolling Cover For Aviation Refueling Vaults	Fuels	11/1/2022	
UFGS 09 97 13.15	Low VOC Polysulfide Interior Coating Of Welded Steel Petroleum Fuel Tanks	Fuels	5/1/2024	
UFGS 09 97 13.17	Three Coat Epoxy Interior Coating Of Welded Steel Petroleum Fuel Tanks	Fuels	5/1/2022	
UFGS 09 97 13.30	HIGH PERFORMANCE COATINGS FOR FUEL STRUCTURES	Fuels	TBD	
UFGS 09 97 13.31	MAINTENANCE COATING OF FUEL STRCTURES	Fuels	TBD	
UFGS 32 13 15 20	Concrete Pavement for Fuel Storage Containment Dikes	Fuels	11/1/2022	
UFGS 33 01 50.31	Leak Detection for Fueling System	Fuels	2/1/2020	
UFGS 33 01 50.55	Cleaning Fuel Storage Tanks	Fuels	2/1/2021	
UFGS 33 01 50.65	Inspection Of Field Fabricated Fuel Storage Tanks	Fuels	5/1/2025	
UFGS 33 08 53	Aviation Fuel Distribution System Start-Up	Fuels	8/1/2018	
UFGS 33 08 55	Fuel Distribution System Start-Up (Non-Hydrant)	Fuels	5/1/2025	
UFGS 33 09 52	Aviation Fuel Pump Control and Annunciation System (Non-Hydrant)	Fuels	8/1/2018	
UFGS 33 09 53	Aviation Fuel Pump Control and Annunciation System (Type III), Chg 1	Fuels	2/1/2021	
UFGS 33 09 54	Aviation Fuel Pump Control and Annunciation System (Type IV,V)	Fuels	8/1/2018	
UFGS 33 09 55	Aviation Fuel Pump Control and Annunciation System (Cut-N-Cover Tanks)	Fuels	8/1/2018	

Publishing as Low VOC Flexible Interior Coating Of Steel Fuel Tanks May 2026

Being Revised 2026
New Issue in Development

FDWG Guidance Documents



Document Number	Title	DWG	Date Published	Change Date
UFGS 33 51 20	Liquified Natural Gas (LNG) Receiving Facilities Systems	Fuels	TBD	
UFGS 33 52 23.15	POL Service Piping Welding	Fuels	5/1/2025	
UFGS 33 52 40	Fuel System Piping (Non-Hydrant)	Fuels	5/1/2025	
UFGS 33 52 43.11	Aviation Fuel Mechanical Equipment	Fuels	8/1/2018	
UFGS 33 52 43.12	Aviation Fuel Pantograph	Fuels	8/1/2018	
UFGS 33 52 43.13	Aviation Fuel Piping, Chg 1	Fuels	8/1/2018	2/1/2021
UFGS 33 52 43.14	Aviation Fuel Control Valves, Chg 1	Fuels	8/1/2018	2/1/2021
UFGS 33 52 43.23	Aviation Fuel Pumps, Chg 1	Fuels	8/1/2018	2/1/2021
UFGS 33 52 43.28	Filter Separator, Aviation Fueling Systems	Fuels	8/1/2018	
UFGS 33 52 80	Liquid Fuels Pipeline Coating Systems	Fuels	8/1/2022	
UFGS 33 56 10	Factory-Fabricated Fuel Storage Tanks	Fuels	5/1/2025	
UFGS 33 56 19	Fuel Impermeable Liner System, Chg 1	Fuels	11/1/2022	
UFGS 33 56 21.17	Single Wall Aboveground Fixed Roof Steel POL Storage Tank	Fuels	5/1/2025	
UFGS 33 56 21.18	Single Wall POL Tank Undertank Interstitial Space	Fuels	5/1/2025	
UFGS 33 57 55	Fuel System Components (Non-Hydrant)	Fuels	8/1/2025	
UFGS 33 TBD	Repair of Field Fabricated Fuel Storage Tanks	Fuels	TBD	
UFGS 09 97 13.27	High Performance Coating For Steel Structures	Arch	5/1/2022	
UFGS 09 97 13.??	High Performance Coating For Fuel Steel Structures	Fuels	TBD	

Being Revised 2026

New Issue in Development

FDWG Guidance Documents



- Standard Designs
 - AW 78-24-27, DOD Aboveground Vertical Steel Fuel Tanks with Fixed Roofs, Rev 1/2025
 - AW 078-24-28 DOD Pressurized Hydrant Fueling System Type III – Rev 3/2020
 - AW 078-24-29 DoD Standard Pressurized Hydrant Direct Fueling System Type IV/V, Rev 2/2010 **(In Update Process Complete 4Q FY26)**
 - AW 078-24-33, DOD Cut-N-Cover Standards, Rev 2/2024
 - STD 121-122-01, USAFE/NATO, Airfield Standard Design US, Jet Fuel Storage Dispensing Systems for Tactical and Wide Body Aircraft, Rev 2/2015 **(NATO working BIM)**
 - STD 123-335-03, DOD Military Service Station and Factory Fabricated Tank Engineering Standard, Rev 1/2015 **(Planned for Update Start FY26)**
 - NAVFAC Drawings Fuel Pier, Rev 11/2020
 - AAFES Fuel System Standard Design – FRP, Rev 8/2014
 - AAFES Fuel Systems Standard Design – Flexworks, Rev 2/2015
- Can be found at <https://www.wbdg.org/dod>
 - Standard Designs are in the Non-COS Standards section

Questions from the Audience



- How to Submit CCR

click the CCR link provided next to each document. CCRs should not be used for project-specific issues, such as solicitation or contract interpretation. These matters should be directed to the appropriate Contracting Officer.

To learn more about how changes are classified, refer to the [UFC-UFGS Revision-Change Policy](#)

📄 A paperclip icon next to a UFC title indicates an attachment is available. Click the title to view the related materials.

STATUS SERIES

TITLE	DATE	CHANGE DATE	VIEW	CCR
UFC Complete	03/30/2026			
UFC 1-200-01 DoD Building Code, with Change 4	09/01/2022	12/17/2024	PDF 📄	CCR 📄
UFC 1-200-02 High Performance and Sustainable Building Requirements, with Change 3	12/01/2020	07/08/2025	PDF 📄	CCR 📄
UFC 1-201-01 Non-Permanent DoD Facilities in Support of Military Operations, with Change 4	03/04/2022	08/08/2023	PDF 📄	CCR 📄
UFS 1-201-02 Assessment of Existing Facilities for Use in Military Operations	07/28/2025		PDF 📄	CCR 📄
UFS 1-300-01 Criteria Format Standard	01/14/2026		PDF 📄	CCR 📄
UFS 1-300-02 Unified Facilities Guide Specifications (UFGS) Format Standard	09/22/2025		PDF 📄	CCR 📄

13:30 4/3/2026

Click Here

- Questions?

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