DoD UNIFIED FACILITIES CRITERIA PROGRAM

FY 2020 Program Review
# Table of Contents

1. Executive Summary .................................................................................. 2

2. Program Overview .................................................................................. 3
   2.1 Program Authority ............................................................................. 3
   2.2 Program Organization ....................................................................... 4
   2.3 Program Administration ..................................................................... 4
   2.4 Program Resources ........................................................................... 5

3. Key Initiatives and Accomplishments ...................................................... 6
   3.1 UFC/UFGS Highlights ..................................................................... 6
   3.2 Sea Level Rise ................................................................................... 6
   3.3 Elevators UFC .................................................................................. 6
   3.4 Update Foundation Documents ....................................................... 6
   3.5 Criteria Management System ........................................................ 7
   3.6 Other Significant Projects .............................................................. 7
   3.7 Project Prioritization for FY 2021 .................................................... 7

4. Unified Facilities Criteria (UFC) ............................................................... 9
   4.1 Introduction ..................................................................................... 9
   4.2 Criteria Strategy .............................................................................. 9
   4.3 Health Metrics ................................................................................. 10
   4.4 FY 2020 UFC Publications ............................................................ 11
   4.5 FY 2021 UFC Projects ..................................................................... 11

5. Unified Facilities Guide Specifications (UFGS) ....................................... 13
   5.1 Introduction ..................................................................................... 13
   5.2 Criteria Strategy .............................................................................. 13
   5.3 Health Metrics ................................................................................. 13
   5.4 FY 2020 New and Revised UFGS ................................................... 14
   5.5 FY 2021 UFGS Projects ................................................................. 14

6. Criteria Change Requests ..................................................................... 17
   6.1 Introduction ..................................................................................... 17
   6.2 CCR Status ..................................................................................... 17
   6.3 CCR Submissions ............................................................................ 17
1 EXECUTIVE SUMMARY

The Department of Defense (DoD) is streamlining government criteria by eliminating duplication and increasing reliance on private sector standards. Since 1998, the Unified Facilities Criteria Program, under the leadership of the Engineering Senior Executive Panel (ESEP), implements these requirements for facility planning, design, construction, operations, and maintenance.

Unified Facilities Criteria (UFC), Facility Criteria (FC), and Unified Facilities Guide Specifications (UFGS) are technical manuals and specifications used for planning, design, construction, and maintenance of all DoD facility projects. Highlights and accomplishments for FY 2020 include:

- Achieving an 80% unification rate for all UFC documents and 73% unification rate for all UFGS.
- Sustaining a 100% unification rate and 81% current for all core UFC documents up from 67% current in FY 2019.
- Publishing 17 new or revised UFC.
- Publishing 46 new and 84 revised UFGS.
- Managing a record number of Criteria Change Requests (CCRs) submitted in FY 2020 totaling approximately 1,400 CCRs from a yearly average of approximately 850 CCRs/year.

In addition to criteria document improvements, the program provides technical expertise and guidance on many key DoD issues. Major accomplishments in FY 2020 include:

- Incorporating the DoD Regional Sea Level (DRSL) database was incorporated into the Civil Engineering UFC and Installation Master Planning UFC.
- Continuing engagements with elevator industry representatives to validate life-cycle cost and address appropriate changes to the Elevators UFC requirements.
- Publishing UFC 1-200-01 DoD Building Code that adopts the 2018 International Building Code, increasing resilience for new facility construction and also clarifies the definitions of Authority Having Jurisdiction (AHJ) to align with MIL-STD 3007G and Service-specific policy for delegation of AHJ authority.
- Continuing improvement to the Criteria Management System (CMS).
- Approving 38 funded projects (17 UFC projects; 21 UFGS projects) for FY 2021 with a funding request of $4.86 million.
2 PROGRAM OVERVIEW

2.1 Program Authority

Public Law 104-113 (the National Technology Transfer and Advancement Act) and OMB Circular A119 (1998) require agencies to streamline government criteria by eliminating duplication of information and increasing reliance on private sector standards. For facility planning, design, construction and maintenance, the Department of Defense (DoD) complies with these requirements through the Unified Facilities Criteria (UFC) Program. The UFC program is implemented through Military Standard (MIL-STD) 3007G, Standard Practice for Unified Facilities Criteria, Facilities Criteria and Unified Facilities Guide Specifications in compliance with DoD Instruction 4120.24, “Defense Standardization Program,” and directed by DoD Directive 4270.5, “Military Construction.” The UFC program objectives are:

- Streamline the military criteria by eliminating duplication of information;
- Increase reliance on private sector standards; and
- Create a more efficient criteria development and publishing process.

Figure 2-1
UFC Program Background and Authorities
2.2 Program Organization

The Engineering Senior Executive Panel (ESEP) provides program guidance, resourcing, and criteria approval. The Coordinating Panel (CP) provides program management and oversees the criteria discipline and functional working groups. The Discipline Working Groups (DWG) and Functional Working Groups (FWG) are responsible for criteria development and production. Program organization highlights for FY 2020:

- ESEP Chair—David Curfman, Naval Facilities Engineering Command;
- CP Chair—Timothy Sullivan, Air Force Civil Engineer Center; and
- 22 Discipline/Functional Working Groups.

<table>
<thead>
<tr>
<th>Engineering Senior Executive Panel (ESEP)</th>
<th>Coordinating Panel (CP)</th>
<th>Criteria Working Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michael McAndrew Director FIM / OASD(EI&amp;E)</td>
<td>Thadd Buzan FIM / OASD(EI&amp;E)</td>
<td>Architecture Aviation Civil</td>
</tr>
<tr>
<td>Dr. Christine Attenhof PE Chief, Engineering &amp; Construction USACE</td>
<td>Scott Wick RA USACE</td>
<td>Cost Engineering Construction Electrical Facility Space Ping Fire Protection</td>
</tr>
<tr>
<td>David Curfman, PE Chief Engineer NAVFAC</td>
<td>Bernie Daleke PE NAVFAC</td>
<td>Geotechnical Mechanical Medical Pavements/Airfields Renew Energy Gen Fuels</td>
</tr>
<tr>
<td>Nancy Balcus PE Deputy Director of Civil Engineers HAF</td>
<td>Dr. Tim Sullivan PE AFCEC</td>
<td>Security Specifications Structural Sustainability Utility Control Waterfront</td>
</tr>
</tbody>
</table>

**Figure 2-2**

UFC Program Oversight and Structure

2.3 Program Administration

The ESEP assigns personnel within U.S. Army Corps of Engineers (USACE), Naval Facilities Engineering Command (NAVFAC), Air Force Civil Engineer Center (AFCEC), and the Office of the Secretary of Defense (OSD) to participate on the CP and the 22 discipline and functional working groups. The working groups are responsible for development and maintenance of the criteria documents by in-house staff or by architect-engineering contracts.
2.4 Program Resources

The ESEP resources the UFC program administration through USACE, NAVFAC, AFCEC, and OSD. As such, the CP and the discipline and functional working groups are responsible for program management, development and maintenance of the criteria documents. Additional funding is also allocated by each service component to augment criteria work which requires resources outside of the working group. The breakout of funding allocated to criteria development and updates is shown in Table 2-1.

<table>
<thead>
<tr>
<th>Service Component</th>
<th>FY 2017</th>
<th>FY 2018</th>
<th>FY 2019</th>
<th>FY 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>USACE</td>
<td>$1,400,000</td>
<td>$1,620,000</td>
<td>$1,321,000</td>
<td>$1,321,000</td>
</tr>
<tr>
<td>NAVFAC</td>
<td>$1,239,000</td>
<td>$1,239,000</td>
<td>$1,262,000</td>
<td>$1,383,000</td>
</tr>
<tr>
<td>AFCEC</td>
<td>$1,931,000</td>
<td>$1,065,000</td>
<td>$1,282,000</td>
<td>$1,215,000</td>
</tr>
<tr>
<td>OSD</td>
<td>$421,000</td>
<td>$700,000</td>
<td>$460,000</td>
<td>$379,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$4,991,000</strong></td>
<td><strong>$4,624,000</strong></td>
<td><strong>$4,325,000</strong></td>
<td><strong>$4,298,000</strong></td>
</tr>
</tbody>
</table>

Table 2-1
Criteria Development Funding

In addition to direct funding for development and maintenance of DoD criteria, funding is required for DoD access to non-government standards (industry consensus standards), management and distribution of DoD standards on the Whole Building Design Guide (WBDG), and administration and maintenance of SPECSINTACT. Significant cost savings are realized for these services by procurement through DoD bulk service contracts. The costs have been steady over the history of the program with the exception of minor adjustments accounting for inflation and have been funded by OSD. The breakout of FY 2020 costs is shown in Table 2-2.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECSINTACT</td>
<td>$216,000</td>
</tr>
<tr>
<td>SPECSINTACT/Windows® Compatibility (update)</td>
<td>$106,000</td>
</tr>
<tr>
<td>NIBS/WBGD</td>
<td>$582,000</td>
</tr>
<tr>
<td>Non-Government Standards/IHS Support</td>
<td>$2,800,000</td>
</tr>
<tr>
<td>UFC and UFGS Program Administration</td>
<td>$129,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$3,833,000</strong></td>
</tr>
</tbody>
</table>

Table 2-2
Criteria Access and Distribution–FY 2020 Funding
3 Key Initiatives and Accomplishments

3.1 UFC/UFGS Highlights

For FY 2020, the UFC program achieved 80% unification rate for all UFC and 73% for all UFGS documents up from 9% in 1998 (baseline year). The program continued to sustain 100% unification rate and 81% current for all core UFC documents (22 of 27 core UFC) up from 67% current (18 of 27 core UFC) in FY 2019. Core UFCs that are not current have ongoing projects to revise those documents.

The program published 17 new or revised UFCs and 46 new and 84 revised UFGS. The CP continued the process of developing core UFGS similar to the core UFCs and continued bundling of UFGS for more cost-effective and efficient updates. Program health indices were again improved by removing inactive and archived UFCs from the active document inventory.

3.2 Sea Level Rise

The DoD Regional Sea Level (DRSL) database was incorporated into UFC 3-201-01 Civil Engineering and UFC 2-100-01 Installation Master Planning. The DRSL database provides regionally adjusted future values, or projections, for five global sea level change scenarios for three future timeframes. It is used to provide projections to determine future inundated areas and related parameters at coastal or tidally influenced locations. UFC 3-201-01 provides civil engineering design criteria for site development, grading, storm drainage, and pavements as they relate to project development. UFC 2-100-01 details minimum requirements for master planning processes and products. Both UFCs were revised FY 2020.

3.3 Elevators UFC

UFC 3-490-06 Elevators provides minimum technical requirements and guidance for new construction and modernization of elevator systems, and their supporting structure, building systems, and components. During FY 2020, the CP continued engagements with elevator industry representatives to validate life-cycle cost and address appropriate changes to UFC requirements.

3.4 Update Foundational Documents

Published MIL-STD-3007G Standard Practice Unified Facilities Criteria, Facilities Criteria and Unified Facilities Guide Specifications that establishes policy for developing and maintaining UFC, FC, and UFGS as common facility standards and engineering practices for the DoD and other supported agencies.

Also published in FY 2020 was UFC 1-200-01 DoD Building Code that adopted the 2018 International Building Code, increasing resilience for new facility construction. This update to UFC 1-200-01 brings uniformity to the military use of non-government model building codes while addressing specific DoD requirements and reduces interpretation and ambiguity that could lead to design and construction conflicts. UFC 1-200-01 also clarifies the definitions of Authority Having Jurisdiction (AHJ) to align with MIL-STD 3007G and Service-specific policy for delegation of AHJ authority. This clarification of AHJ definitions provides necessary lines of authority for DoD facility-related projects.
3.5 Criteria Management System

In FY 2020, a contract was awarded to enhance the Criteria Management System (CMS). The contract includes a re-write of the programming language and enhancements to provide easier access to key reports and data. Likewise, a module was developed to facilitate management and serve as a repository for criteria waivers and exemptions.

3.6 Other Significant Projects

New requirements for military mission, lithium batteries that will be stored or charged inside facilities were published in FY 2020. The requirements address available limited industry standards while setting requirements to meet DoD operational mission requirements.

UFC and UFGS requirements addressing F-35 Pre-Conditioned Air Systems (PCAS) were revised to better address detailed design requirements and construction quality assurance and quality control issues.

A new specification--UFGS 23 81 29 Variable Refrigerant Flow HVAC Systems—was published in FY 2020. The specification describes the requirements for variable refrigerant flow (VRF) type air conditioning and heat pumps systems and accessories. The new UFGS addresses control system requirements for VRF systems to address open protocol allowances.

During FY 2020, the CP conducted 19 Discipline Working Group (DWG) execution status briefs at which the DWG members address adhering to project timelines to publish new and revised criteria documents, reducing outdated documents, and reducing outstanding CCRs.

Finally, the UFC program provided input for several reports to Congress.

3.7 Project Prioritization for FY 2021

During FY 2020, the CP conducted an in-depth project prioritization for FY 2021 UFC and UFGS projects. DWGs were notified with a call for projects, and input was received from 15 DWGs via submission through CMS. Eighty-eight criteria projects were proposed; these included new starts, revisions, changes, and "bundled" projects totaling approximately $8.1 million. The CP approved 38 funded projects (17 UFC projects; 21 UFGS projects) with a funding request of $4,855,700. These funded projects and associated documents are listed in Section 4 and 5 of this report along with additional FY 2021 projects involving minor changes or consolidation of documents not requiring funding (in-house efforts).
<table>
<thead>
<tr>
<th>DWG</th>
<th>Funding</th>
<th>Projects</th>
<th>UFC</th>
<th>UFGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture</td>
<td>$240,000</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Aviation</td>
<td>$150,000</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Construction</td>
<td>$120,000</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Electrical</td>
<td>$480,000</td>
<td>7</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Fire Protection</td>
<td>$215,000</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Geotechnical</td>
<td>$506,200</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Mechanical</td>
<td>$375,000</td>
<td>8</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Pavements/Airfields</td>
<td>$650,000</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Specifications</td>
<td>$120,000</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Structural</td>
<td>$1,100,000</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Sustainability</td>
<td>$300,000</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Utility Control</td>
<td>$224,500</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Waterfront</td>
<td>$375,000</td>
<td>5</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$4,855,700</td>
<td>38</td>
<td>17</td>
<td>21</td>
</tr>
</tbody>
</table>

**Table 3-1**

FY 2021 Funding Allocation for Approved Projects by DWG

**Table 3-2**

FY 2021 Criteria Projects—Estimated Cost by DWG
4 UNIFIED FACILITIES CRITERIA (UFC)

4.1 Introduction

UFC and FC documents are technical manuals used for planning, design, construction, and maintenance of DoD facilities. The majority of UFC and FC are design manuals that define design requirements and best practices for DoD construction projects. A smaller percentage of UFCs provide planning requirements, maintenance guidance, and handbook-type information used by field personnel.

4.2 Criteria Strategy

Industry codes and standards provide minimum consensus safety and performance requirements and are the basis of DoD criteria. **UFC 1-200-01 DoD Building Code** implements the International Building Code and other consensus codes and standards. UFC 1-200-01 also references 27 other “core” UFC documents and other DoD special requirements to implement legislation and policy, and provide criteria associated with unique DoD functions. These documents collectively comprise the “DoD Building Code.”

The remaining UFC and FC documents generally fall into two categories: facility-type or specialty-type. Facility-type UFC documents provide space and functional requirements for facilities built frequently (such as fitness centers) or have unique DoD requirements (such as aircraft hangars and Navy piers). Specialty-type UFC documents are used on projects that require the use of a specialty system or component (such as cathodic protection, boiler control systems, and dockside utilities).

![Figure 4-1
DoD Facilities Criteria Strategy](image-url)
4.3 Health Metrics

The primary indicators of UFC health are “% Unified” and “% Current.” % Unified represents the percentage of total UFC documents used by all three Military Departments that are unified, and indicates progress toward reducing duplicate criteria. % Current represents the percentage of all UFC documents that have been revised within a specified target timeframe or refresh rate. Refresh rates are assigned as 3 years, 6 years, 9 years, or 12 years. UFC documents can be kept current on an interim basis by incorporating minor changes and publishing as a “change” (without updating the publication date) rather than a full revision. UFC changes are not captured in the % Current calculation. Data collection for % Current began in FY 2011. The baseline for % Unified data is extracted from the March 1998 report to the Congressional Defense Committees titled “Unified Design Guidance.”

In FY 2020, 100% of the 27 core UFC were unified and 81% were current. Core UFC that are not current have ongoing projects to revise those documents.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total # UFC &amp; FC</strong></td>
<td>361</td>
<td>260</td>
<td>162</td>
<td>158</td>
<td>158</td>
<td>164</td>
</tr>
<tr>
<td>% Unified</td>
<td>9%</td>
<td>40%</td>
<td>78%</td>
<td>80%</td>
<td>83%</td>
<td>80%</td>
</tr>
<tr>
<td>% Current</td>
<td>N/A</td>
<td>N/A</td>
<td>57%</td>
<td>60%</td>
<td>59%</td>
<td>57%</td>
</tr>
</tbody>
</table>

Table 4-1
UFC Health Metrics – All UFC

A UFC or FC is considered “current” when its individual health index is less than 1. The health index of a document is a measure of the age of the document as compared to its refresh rate, see equation 4-1. Hence, if the health index of the document is less than 1, the document is considered to be up to date and current. If a document health index is greater than 1, it is considered beyond its established refresh rate and requires a revision to revalidate and update requirements. Note that a document with a health
index greater than 1 does not mean the document is invalid. It signifies that the document needs revalidation or revisions to remain current.

\[
\text{Document Health Index} = HI_{\text{DOC}} = \frac{(\text{Current Date} - \text{Document Publication Date})_{\text{yrs}}}{(\text{Refresh Rate})_{\text{yrs}}}
\]

Equation 4-1
Document Health Index

4.4 FY 2020 UFC Publications

In FY 2020, 17 new or revised UFC were published:

UFC 4-310-03 Fuels Laboratory Standards
UFC 4-150-02 Dockside Utilities for Ship Service
UFC 4-150-07 Maintenance and Operation: Maintenance of Waterfront Facilities
UFC 3-201-01 Civil Engineering
UFC 4-213-10 Graving Dry Docks
UFC 4-510-01 Design: Military Medical Facilities
UFC 3-301-02 Design of Risk Category V Structures, National Strategic Military Assets
UFC 4-026-01 Design of Buildings to Resist Forced Entry
UFC 4-179-02 Small Arms Range Design and Maintenance
UFC 4-159-03 Design: Moorings
UFC 4-750-07 Recreational Aquatic Facilities
UFC 3-230-02 O&M: Water Supply Systems
UFC 3-520-05 Stationary Battery Areas
UFC 3-540-07 Operation and Maintenance (O&M): Generators
UFC 3-540-01 Engine-Driven Generator Systems for Prime & Standby Power Applications
UFC 1-200-01 DoD Building Code

4.5 FY 2021 UFC Projects

The following UFCs comprise the funded and approved projects for FY 2021.

Architecture
UFC 1-200-01: DoD Building Code
UFC 4-610-04: Legal Facilities
UFC 4-740-14F: Child Development Centers
UFC 4-141-04: Emergency Operation Center Planning and Design

Aviation
UFC 4-211-01: Aircraft Maintenance Hangars

Civil Engineering
UFC 3-240-13FN: Industrial Water Treatment Operation and Maintenance

Cost Engineering
UFC 3-740-05: Construction Cost Estimating
**Electrical Engineering**
UFC 3-580-01: Telecommunications Interior Infrastructure Planning and Design
UFC 3-520-xx: Engineering Resiliency for Critical Infrastructure

**Fire Protection Engineering**
UFC 3-600-01: Guide for Installation and Inspection of Flexible Sprinkler Drops

**Geotechnical Engineering**
UFC 3-220-10N: Soil Mechanics
UFC 3-220-06: Grouting Methods and Equipment

**Mechanical Engineering**
UFC 3-410-01: Heating, Ventilating and Air Conditioning
UFC 3-450-01: Noise and Vibration Control
UFC 3-420-02FA: Compressed Air

**Pavements/Airfields**
UFC 3-270-01: Asphalt and Concrete Pavement Maintenance and Repair

**Specifications**

**Structural Engineering**
UFC 3-301-01: Structural Engineering

**Sustainability**
UFC 1-200-02: High Performance and Sustainable Building Requirements

**Utility Control**
UFC 4-010-06: Cybersecurity of Facility-Related Control Systems
UFC 3-470-01: Utility Monitoring and Control System (UMCS) Front End and Integration

**Waterfront**
UFC 4-159-03: Moorings
5 UNIFIED FACILITIES GUIDE SPECIFICATIONS (UFGS)

5.1 Introduction

UFGS are technical master guide specifications used in construction projects. UFGS reference industry-consensus test and material standards and are mostly prescriptive in nature. UFGS are edited by the designer for each project and are directed to the construction contractor. Sections are numbered and titled in accordance with Construction Specifications Institute’s (CSI) Masterformat™ 2012. Sections are organized into three parts in accordance with UFC 1-300-02 UFGS Format Standard:

Part 1 – GENERAL
References
Submittals

Part 2 – PRODUCTS
System performance
Materials

Part 3 – EXECUTION
How to install
Field quality control and testing

5.2 Criteria Strategy

UFGS provide the level of quality and performance to provide best life-cycle cost sustainment for DoD facilities over a 45-55-year service life. UFGS are editable in order to adjust quality and level of performance based on project specific factors such as climate zone, site factors, structural loading, corrosion potential, durability requirements, facility criticality, and appearance requirements. DWGs identify the primary UFC tied to their UFGS, and its relationship in content (low, medium, or high) as part of this effort. CMS is being programmed to show the UFC and UFGS relationship fields in the document screens. In FY 2018, the CP began the process of identifying core UFGS similar to the core UFCs and continued bundling of UFGS for more cost-effective and efficient updates.

5.3 Health Metrics

The primary indicators of UFGS health are “% Unified” and “% Current”. % Unified represents the percentage of total UFGS used by all three Military Departments that are unified and indicates progress toward reducing duplicate criteria. % Current represents the percentage of all UFGS that have been revised within a specified target timeframe or refresh rate. Refresh rates are assigned as 3 years, 5 years, or 7 years.

CMS data collection for % Current began in FY 2012 for UFGS. The baseline for % Unified data is extracted from the March 1998 report to the Congressional Defense Committees titled “Unified Design Guidance.”

UFGS are considered “current” when their individual health index is less than 1. Similar to UFC and FC, the UFGS health index of a document is a measure of the age of the document as compared to its refresh rate, see equation 4-1.
5.4 FY 2020 New and Revised UFGS

In FY 2020, 46 new and 84 revised UFGS were released. A complete listing of UFGS can be found at: http://www.wbdg.org/ccb/browse_cat.php?c=3

5.5 FY 2021 UFGS Projects

The following UFGS comprise the funded and approved projects for FY 2021.

Architecture
UFGS 09 97 13.15: Low VOC Polysulfide Interior Coating of Welded Steel Petroleum Fuel Tanks
UFGS 08 34 63: Detention Hollow Metal Frames, Doors, and Door Frames
UFGS 07 41 63: Fabricated Roof Panel Assemblies
UFGS 07 11 13: Bituminous Dampproofing
Civil Engineering
UFGS 33 01 98: Slip Lining of Existing Piping for Levee Applications
UFGS 3-240-13FN: Industrial Water Treatment Operation and Maintenance
UFGS 33 01 30.72: Relining Sewers
UFGS 33 01 30.16: TV Inspection of Sewer Pipelines
UFGS 46 71 16: Gravity Belt Thickeners
UFGS 32 13 15.20: Concrete Pavement for Containment Dikes
UFGS 46 30 13: Advanced Oxidation Processes
UFGS 46 73 10: Floating Cover for Sludge-Digestion Tanks

Construction
UFGS 01 57 19: Temporary Environmental Controls

Electrical
UFGS 02 84 16: Handling of Lighting Ballasts and Lamps Containing PCBs and Mercury
UFGS 26 27 14: Advanced Metering
UFGS 26 28 01.00 10: Coordinated Power System Protection
UFGS 26 28 00.00 10: Motor Control Centers, Switchboards and Panelboards
UFGS 26 22 00.00 10: 480-Volt Station Service Switchgear and Transformers
UFGS 08 34 49.00 20: Hemp Shielded Door
UFGS 26 05 48.00 10: Seismic Protection for Electrical Equipment
UFGS 26 08 00: Apparatus Inspection and Testing
UFGS 26 56 20: Airfield and Heliport Lighting and Visual Navigation Aids
UFGS 08 71 63.10: Electrical Locking Control for Brigs

Fire Protection
UFGS 28 31 33.00 10: Fire Alarm Reporting System, Radio Type

Mechanical
UFGS 22 00 00: Plumbing, General Purpose
UFGS 23 05 93: Testing, Adjusting, and Balancing for HVAC
UFGS 23 30 00: HVAC Air Distribution
UFGS 44 10 00: Air Pollution Control
UFGS 23 63 00.00 10: Cold Storage Refrigeration Systems
UFGS 23 81 00: Decentralized Unitary HVAC Equipment
UFGS 35 05 40.14 10: Hydraulic Power Systems for Civil Works Structures
UFGS 41 24 26: Hydraulic Power Systems
UFGS 23 09 93: Sequences of Operation for HVAC Control
UFGS 23 52 00: Heating Boilers
UFGS 35 45 01: Vertical Pumps, Axial-Flow and Mixed-Flow Impeller-Type
UFGS 23 52 30.00 10: Heat Recovery Boilers
UFGS 35 45 03.00 10: Speed Reducers for Storm Water Pumps

Pavements/Airfields
UFGS 32 01 13.62: Asphalt Surface Treatment

Specifications
UFGS 01 78 23: Operation and Maintenance Data
Utility Control
UFGS 25 10 10: Utility Monitoring and Control System (UMCS) Front End and Integration

Waterfront
UFGS 35 31 19: Stone, Channel, Shoreline/Coastal Protection for Structures
UFGS 03 31 30: Marine Concrete
UFGS 09 97 13.28: Protection of Buried Steel Piping and Steel Bulkhead Tie Rods
UFGS 03 31 29: Marine Concrete with Service Life Modeling
6 CRITERIA CHANGE REQUESTS (CCR)

6.1 Introduction

Criteria Change Requests (CCRs) provide a process whereby users of UFC, FC, and UFGS can submit commentary on DoD criteria documents. Such commentary may warrant corrections to the documents that reflect lessons learned and/or current industry standards and work practices. Anyone with access to the internet may use CCRs to document and submit comments on UFC, FC, and UFGS. The CCR database was moved to the Criteria Management System in FY 2011 to improve working group notification, execution, and tracking of CCRs which had been all but nonexistent in prior years. The system has improved CCR resolution immensely. The CCR commenting system is an open system. The system handles hundreds of queries and comments a year. The disposition of CCRs by fiscal year is shown in Figure 6-1.

6.2 CCR Status

CCR status provides a means to manage and track submitted CCRs until they are completed and incorporated into UFC, FC and UFGS documents or disapproved. Depending on the potential impact of approved CCR, consideration is given to the urgency of the requested change. In some instances, the approved CCR change may occur quickly and necessary changes or revisions are made to UFC, FC or UFGS documents. In other instances, where the change is not urgent, but necessary, the CCR will be incorporated into the criteria documents at the next scheduled revision to the document during the normal revision cycle. Once reviewed and approved, a CCR remains in an ‘Approved’ status until it is incorporated into the criteria documents at which time it is marked ‘Complete/Incorporated.’

6.3 CCR Submissions

FY 2020 saw a record number of Criteria Change Requests (CCR) submitted totaling approximately 1,400 CCRs. This is up from a yearly average of approximately 850 CCR/year and prior high of 1,050 CCR in 2012. This is thought to be due to increased awareness the CCR system across DoD and industry and many documents need revisions to remain current – incorporating CCRs.
Figure 6-1
CCR Status FY 2011 - FY 2020