

CEMP-EA

Regulation  
No. 1110-3-113

27 September 1993

**Engineering and Design**  
**DEPARTMENT OF THE ARMY FACILITIES STANDARDIZATION PROGRAM**

**1. Purpose.**

This regulation establishes policies, responsibilities, and procedures for the U.S. Army Corps of Engineers (USACE) to execute the Department of the Army (DA) Facilities Standardization Program.

**2. Applicability.**

This regulation applies to all Headquarters, U.S. Army Corps of Engineers (HQUSACE) and Office of the Chief of Engineers (OCE) elements, major subordinate commands (MSC), district commands, laboratories, and field operating activities (FOA) having military construction (MILCON) responsibilities.

**3. References.**

References and additional information resources are listed at Appendix A.

**4. General.**

**a. Description.** Army facilities standardization is a formal process for developing requirements and designs for facilities which will be used as DA standards for construction. This process consists of:

(1) Selecting facility types appropriate for standardization.

(2) Developing functional and technical facility requirements based on input from the Army proponent agencies and USACE.

(3) Developing, coordinating, approving, and implementing DA standard design packages based on the Army's requirements.

(4) Using approved DA standard design packages to develop project specific design and construction documents for Army facilities.

(5) Monitoring the use of, seeking feedback, reviewing and updating approved DA standard design packages to ensure their continued technical quality and responsiveness to Army requirements.

**b. Definitions.** The term "standardization" is often understood to mean complete duplication of a facility's design that is site adapted from site to site. However, standardization of a facility's design may be accomplished through several methods, as allowed by ER 1110-345-710.

(1) Full standard designs include drawings and specifications that are sufficient in detail to serve as construction documents after modifications are made for site-specific requirements.

(2) Definitive designs include drawings and information that delineate space allocations, functional layouts, and the basic configuration of the facility, and serve as guides in developing specific design and construction drawings.

(3) Design guides normally contain a combination of written and graphic material for a specific facility type, accompanied by several example designs.

(4) DA standard design packages will normally be developed to a level of design that is similar to definitive designs in order to provide the flexibility to meet the varying needs of the Army. The basic DA standard design package includes both standard design drawings and design analysis in accordance with Appendix B.

## **5. Objectives.**

**a. Background.** The Vice Chief of Staff, Army (VCSA) notified Commanders of the Major Army Commands (MACOM) that distinct benefits accrue to the Army by standardization, including the use of standard facility designs. The VCSA also indicated to the Chief of Engineers (COE) that the Army cannot afford the luxury, nor are there justifiable reasons to design and construct unique facilities for each Army installation, and that the COE should increase the use of standard facility designs in the Army's MILCON programs. The VCSA emphasized that the facilities standardization effort should include the appropriate participation of DA Staff offices, MACOM, and other DA organizations having specific facility proponent responsibilities.

### **b. Objectives for Facilities Standardization.**

The overall objective for Army facilities standardization is to achieve savings and benefits in the programming, design, and construction of Army facilities of excellence. Specifically, this objective includes, but is not limited to, the following:

(1) Increased credibility with the Congress through more consistent construction program development.

(2) Increased consistency in facility types with equal treatment among MACOM, installations, and users.

(3) Simplified construction programming activities.

(4) Improved master planning and site development activities, improved design quality, and the promotion of design excellence.

(5) Simplified design and construction project management, reduced design costs and time, reduced construction costs and time, and reduced change orders during construction.

(6) Increased customer satisfaction through improved responsiveness to the user's functional and operational requirements.

### **c. Army-wide vs Geographical Approach.**

(1) Uniformity of standard designs Army-wide is the desirable goal and should be achieved wherever possible. However, certain factors may preclude the achievement of this goal in some cases, such as the following:

(a) Operational requirements may vary between CONUS and OCONUS military units.

(b) Construction materials and methods as well as construction labor markets vary between CONUS and OCONUS geographical areas and regions. The International Balance of Payments Act may influence material, components and systems selections.

(c) Host Nation building codes, construction regulations, and construction practices in OCONUS locations vary from CONUS building codes, regulations, and practices.

(2) Where an Army-wide standard design is not possible because of the factors listed above, then a geographical approach may be adopted in the development of the DA standard design package. The geographic areas will be CONUS (including Alaska and Hawaii); Europe; and the Far East. Regions within each geographic area may also be designated, as appropriate, when operational, design, and construction requirements vary within the geographical area. Each DA standard design package will be used throughout the geographical area or region for which it has been developed.

(3) In each case when an Army-wide standard design is developed, the DA standard design package will still be required to be adapted by each geographical area through the development of geographical designs which embody the functional characteristics of the DA standard design while integrating the design and construction requirements imposed by various Host Nation governments.

## **6. Organizational Structure.**

**a. DA Facilities Standardization Committee.** As defined by AR 415-15, the DA Facilities Standardization Committee consists of one voting General Officer who is supported by one non-voting

point of contact from each DA Staff office and MACOM with facility proponent responsibility.

(1) DA Staff representation includes, but is not necessarily limited to, the following: Office of the Chief of Staff (DACs), Office of the Chief, Army Reserves (DAAR), Office of the Chief of Chaplains (DACH), Office of the Deputy Chief of Staff for Logistics (DALO), Office of the Deputy Chief of Staff for Intelligence (DAMI), Office of the Deputy Chief of Staff for Personnel (DAPE), Office of the Deputy Chief of Staff for Operations and Plans (DAMO), and the Office of the Surgeon General (DASG).

(2) MACOM representation includes, but is not necessarily limited to, the following: U.S. Army Europe and Seventh Army (USAREUR), Forces Command (FORSCOM), Military Traffic Management Command (MTMC), U.S. Army Criminal Investigation Command (USACIDC), U.S. Army Health Services Command (HSC), U.S. Army Information Systems Command (USAISC), Intelligence and Security Command (INSCOM), U.S. Army Materiel Command (AMC), U.S. Army Military District of Washington (MDW), U.S. Army South (USARSO), U.S. Army Training and Doctrine Command (TRADOC), U.S. Army Pacific (USAPAC), U.S. Forces Korea/Eighth U.S. Army (USFK/EUSA), and the U.S. Army Special Operations Command (USASOC).

(3) The DA Facilities Standardization Committee is chaired by the Director of Military Programs, HQUSACE.

(4) The POC on the DA Facilities Standardization Committee should be familiar with the programming and operational requirements of Army facilities. For this reason, the POC from a DA Staff office will normally be the same person who represents that office on the Construction Requirements Review Committee (CRRC). Each POC may be supported by programming, planning, and technical resources from their respective DA Staff office or MACOM, or any other Army functional or operational expert as required.

**b. Subcommittees for Specific Facility Types.** One world-wide Subcommittee will be established for each facility type or group of facility types to be standardized. Specific working teams

may be established as necessary within each Subcommittee to address specific elements, or geographical and regional variations, of the facility type.

(1) The composition of each Subcommittee will depend on the facility type to be standardized. As a minimum, each Subcommittee will consist of representatives from the DA Staff office and MACOM having facility proponent responsibility. In addition, members may represent subordinate commands, Army installations or user organizations, and other activities involved with the type of facility. The DA Facilities Standardization Committee members will designate representatives for membership on each Subcommittee, as appropriate. For the purpose of decision making, the Subcommittees will be chaired by representatives from the DA Staff offices or MACOM that are the proponents for the facility types, or by Army functional and operational experts designated by the DA Staff or MACOM.

(2) Each facility type Subcommittee will be supported both administratively and technically by a Center of Standardization (COS) which is a USACE operating MSC or district assigned to develop specific DA standard design packages and accomplish other functions of a COS in accordance with ER 1110-3-109. In most cases, the COS will be the only USACE organization that is actively involved with the facility type subcommittees. Exceptions to this include HQUSACE participation and where a USACE organization has been designated as the facility type proponent.

**c. USACE Facilities Standardization Committee.** As defined by ER 15-1-25, the USACE Committee will consist of one representative from each of the engineering divisions/directorates of the USACE MSC having MILCON responsibilities, i.e., Huntsville (CEHND), Missouri River (CEMRD), North Atlantic (CENAD), North Pacific (CENPD), Ohio River (CEORD), Pacific Ocean (CEPOD), South Atlantic (CESAD), South Pacific (CESPD), Southwestern (CESWD), and Transatlantic (CETAD).

## **7. Responsibilities and Activities.**

### **a. DA Facilities Standardization Committee.**

In accordance with AR 415-15, the primary responsibilities of the DA Facilities Standardization Committee are to provide DA level unity to the facilities standardization process, and to recommend policy and provide advice for the facilities standardization activities. Specifically, these responsibilities and activities include:

(1) Define the objectives, and recommend the directions, for facilities standardization efforts which reflect current Congressional, Department of Defense (DoD), and DA issues.

(2) Recommend to the COE candidate facility types for standardization.

(3) Recommend appropriate adjudication of issues arising out of the development of standard requirements and designs.

(4) Recommend approval by the COE of DA standard design packages for Army-wide or geographical use.

(5) Recommend the mandatory use and implementation of approved DA standard design packages by the COE under the authority of the VCSA. Once recommended for approval by the DA Facilities Standardization Committee and approved by the COE, a standard design will become mandatory for use as a DA standard design package, either Army-wide or within a designated geographic area or region.

(6) Recommend approval or disapproval by the COE of requests for variances or waivers from functional or operational elements of approved DA standard design packages.

(7) Provide recommended policy and guidance for updating of approved DA standard design packages.

(8) Meet as required and be available on an as necessary basis to address ongoing issues such as requests for variances or waivers of approved DA standard design packages and the updating of existing DA standard design packages.

**b. Subcommittees for Specific Facility Types.** The primary responsibilities of each Subcommittee are to develop the functional and

operational requirements and to coordinate with the supporting COS in the development of the proposed DA standard design package for the selected facility type. Specifically, these responsibilities and activities include:

(1) Provide the proponent and user perspective in the development of the proposed DA standard design package. Establish specific working teams as required.

(2) Identify the appropriate sources of input for the development of the functional and operational requirements for the facility type, e.g., appropriate Army installations or user organizations, Army functional and operational experts, or other activities involved with the type of facility. Obtain and coordinate the input from the identified sources, and ensure that comments from these sources are fully considered during the development of the proposed DA standard design package.

(3) Develop and document the functional and operational requirements for the facility type, consistent with the guidance provided by the DA Facilities Standardization Committee.

(4) Provide the functional and operational requirements for the facility type to the supporting COS selected to develop the standard design. Coordinate with the supporting COS on the appropriate level of standardization and geographical application of the proposed DA standard design package for consistency with the guidance provided by the DA Facilities Standardization Committee.

(5) Identify those elements of the DA standard design package that are mandatory and those elements that are optional, and ensure the final DA standard design package clearly reflects these mandatory and optional elements.

(6) Monitor the development of the proposed DA standard design package. Review the proposed DA standard design package and, upon acceptance by a consensus of the Subcommittee, submit the design to the DA Facilities Standardization Committee for consideration.

(7) Monitor and evaluate the approved DA standard design package for responsiveness to Army functional and operational requirements.

(8) Appoint a member of the Subcommittee to serve as the point of contact concerning waiver actions.

(9) Develop recommendations for updating, revising, or redeveloping the approved DA standard design package when appropriate. Transmit the recommendations to the DA Facilities Standardization Committee for consideration.

**c. USACE Facilities Standardization Committee.** In accordance with ER 15-1-25, the primary responsibilities of the USACE Committee are to coordinate among USACE elements and ensure that they participate in the development and the use of DA standard design packages. Specific responsibilities and activities of the USACE Committee are defined in ER 15-1 -25.

**d. Centers of Standardization (COS).** The primary responsibilities of the supporting COS are to provide administrative and technical support to the Subcommittee for the specific facility type, develop the DA standard design package for each assigned facility type, track and monitor the use of the standard, evaluate the standard for technical adequacy and responsiveness to user requirements, and provide technical support on an as needed basis to other USACE design agencies. Current COS assignments, by facility type, are provided in ER 1110-3-109. Specific responsibilities and activities, in addition to the mission and those functions of a COS described in ER 1110-3-109, include:

(1) Coordinate with the Subcommittee for the selected facility type and, if appropriate, provide design and engineering input to the development of the functional and operational requirements.

(2) Develop a schedule and arrange for meetings of the Subcommittee for the specific facility type, coordinate with other Subcommittees, and prepare and publish minutes of all meetings within ten days after the meeting date. All proposed meeting dates and places must be coordinated with HQUSACE (CEMP-EA) to allow the consolidation

of meetings with other Subcommittees to ensure that travel times and costs are minimized.

(3) Develop a proposed standard design or designs for the facility type. Coordinate the development of the proposed standard design with the Subcommittee for the facility type. Ensure that all proponent and user comments are fully considered and documented during the development of the proposed DA standard design package. Development of the DA standard design package may be accomplished by either in-house USACE personnel or by Architect-Engineer (AE) contract.

(4) Transmit the proposed DA standard design package for coordination with the USACE Committee, HQUSACE (CEMP-E), and other COS. Incorporate the technical input from these sources into the proposed DA standard design package.

(5) Monitor and evaluate the DA standard design package for constructibility and technical performance. Document and transmit the evaluation to HQUSACE (CEMP-EA).

**e. HQUSACE Facilities Standardization Activity.** A facilities standardization activity will be maintained within HQUSACE, Directorate of Military Programs. This activity will coordinate with the DA Facilities Standardization Committee, the USACE Committee, the Subcommittees for the various facility types, and the COS in the development and maintenance of DA standard design packages. Additionally, this activity will be responsible for keeping other interested DA elements informed about the program, such as the Office of the Deputy Assistant Secretary of the Army for installations and Housing, and the Construction Requirements Review Committee (CRRC). The responsible office is HQUSACE (CEMP-EA).

## **8. Facility Types for Standardization.**

**a. Selecting Facility Types for Standardization.** The selection of a facility type for standardization can be based on many factors. These factors include, but are not limited to:

(1) Congressional, DoD or DA policy requires or suggests standardization or uniformity of all designs of a facility type.

(2) The number of projects programmed for a specific facility type in the various MILCON programs (i.e., MCA, NAF, AFH, etc.) suggests that standardization would result in saved design costs and time.

(3) The similarity of functional and operational requirements among various facilities of a specific type lend themselves to standardization.

(4) The design characteristics of a specific facility type, i.e., the complexity of the design, the potential for modularity or repetition of elements in the design, and the potential for the design to adapt to varying requirements such as scope, building engineering, or architectural themes lend themselves to standardization.

(5) The availability of an existing design that is already accepted and widely used as a standard design in a given geographical area, by a MACOM, or by the Army in general suggests that the design would be a benefit Army-wide.

#### **b. Recommending Facility Types For Standardization.**

(1) Any DA Staff element, MACOM, USACE element, or other DA element may select and recommend candidate facility types for standardization. All recommendations should be submitted to HQUSACE (CEMP-EA) for consideration.

(2) Once a recommendation has been received, HQUSACE (CEMP-EA) will arrange for the establishment of a Subcommittee and the selection of a COS for the recommended facility type. As a minimum, the Subcommittee will meet to determine whether or not standardization is appropriate, and report their findings to HQUSACE (CEMP-EA) who, in turn, will inform other elements involved in the program and, if appropriate, program necessary funds for the development of a DA standard design package for the recommended facility type.

#### **9. DA Standard Design Package Development.**

Procedures for developing DA standard design packages are contained in Appendix C.

#### **10. DA Standard Design Package Implementation/Use.**

a. **Authority.** When recommended by the DA Facilities Standardization Committee and authorized by the COE, a DA standard design package will become mandatory for the selected facility type, and will be used Army-wide within the intended geographic area for planning, programming, design and construction activities. In the case of category code 500 medical facilities, the implementation of an approved DA standard design package will be coordinated with the Office of the Assistant Secretary of Defense for Health Affairs.

#### **b. Procedures for Using a DA Standard Design Package.**

(1) Installations, or USACE MSC under QUICKSTART procedures, will use appropriate DA standard design packages during a project's planning and programming phases for a facility type for which a DA standard design package has been implemented. The MACOM, and USACE MSC under QUICKSTART should ensure that installations use and reference appropriate DA standard design packages in DD Forms 1391 and all other necessary programming documentation.

(2) Upon receipt of a design directive from HQUSACE for a facility for which a DA standard design package has been implemented, the USACE district administering the project will obtain the appropriate DA standard design documentation. As with other types of standard designs, copies of approved DA standard design packages are available from the U.S. Army Engineer Division, Huntsville (CEHND) in accordance with EP 1110-345-2. Execution of the design for an individual facility will follow conventional design procedures. with these special instructions added:

(a) Selection of an AE contractor must consider previous experience with the applicable DA

standard design package, or in-house design staff should be used.

(b) In addition to building related interior design, furniture related interior design should be provided in accordance with ER 1110-345-122.

(c) Computer Aided Design and Drafting (CADD) shall be used in accordance with EM 1110-1-1807 standards. A copy of the final design CADD tape(s) will be provided to the appropriate COS along with a set of all final design documents (drawings, specifications, bid documents, and design analyses).

(3) The USACE district administering the project design, to the extent allowed by the DA standard design package, will tailor the design to the specific requirements of the project. This may include adapting the DA standard design for the appropriate size or scope as programmed on the DA Form 1391, integrating the design and construction requirements imposed by various Host Nation governments, site design and engineering, and selecting the appropriate options allowed in the DA standard design package to address local conditions. Such options may include structural and environmental design, and the architectural theme. Depending on the level of standardization represented in the DA standard design package, building engineering, material selections, architectural treatment, and other project specific features may also have to be addressed. If the USACE district administering the project design requires any clarifications or assistance concerning the DA standard design package, the supporting COS for that DA standard design package, as listed in ER 1110-3-109, should be contacted.

(4) Once the DA standard design package has been used for an individual facility at a given installation, that design (design and construction documentation) will become the standard design drawings for all subsequent applications of the same facility type at that Army installation. Subsequent uses of the standard design drawings will be site adaptations, requiring only modifications for scope and size, and site design and engineering. Revisions approved and implemented for the basic DA standard design package. may be incorporated into these installation standard design drawings, as appropriate at that particular Army installation.

**c. Waiver From the Use of a DA Standard Design Package.** There may be circumstances where the use of a DA standard design package could be inappropriate for an individual facility. In such cases, a request for waiving the use of the DA standard design package will be submitted to the HQUSACE Facilities Standardization Activity (CEMP-EA) for review. The installation is responsible to prepare this submittal such that it clearly documents the rationale for the waiver request and to submit the request through the MACOM for which the facility is programmed. In the case of category code 500 medical facilities, the Office of the Surgeon General serves as the MACOM in accordance with AR 415-15.

(1) A request for waiver will follow a standard format. The initiator of the request will identify the following:

(a) The functional and operational requirements of the facility for which the DA standard design package is not or cannot be made responsive.

(b) The required feature(s) of the DA standard design package that is (are) nonresponsive to each of the identified facility requirements.

(c) A description of the incompatibility between each of the identified facility requirements and the affected required feature(s) of the DA standard design package.

(d) The estimated construction cost impact of the waiver.

(2) The HQUSACE Facilities Standardization Activity (CEMP-EA) may seek input from the members of the Subcommittee for the facility type, the USACE Committee, the supporting COS for the facility type, the USACE district or MSC designing the actual project, or the users of the individual facility. As a minimum, the waiver request must be coordinated with the HQDA proponent for the facility type. Upon review of the request and coordination with the HQDA proponent, the HQUSACE Facilities Standardization Activity will recommend approval or disapproval to the Chairperson or the DA Facilities Standardization Committee. The Chairperson may seek additional input from the DA Facilities Standardization

Committee, if necessary, prior to recommending approval or disapproval to the COE. The COE will make the final decision concerning the waiver request.

**d. Modification or Waiver of a Mandatory Element of a DA Standard Design Package.** Prior to entering into the waiver procedure for a mandatory or required element of an approved DA standard design package, the installation, MACOM, or the USACE district executing the project design should contact the appropriate supporting COS to determine why the element was identified as mandatory. In some cases, this explanation may preclude the installation or MACOM from wanting the waiver. However, in those circumstances where certain mandatory or required elements of a DA standard design package may be inappropriate for an individual facility, the following procedure will be used.

(1) The installation is responsible for initiating a request for a waiver of a mandatory element. The request must be made through the MACOM responsible for programming the project, and not through USACE channels. In the case of category code 500 medical facilities, the Office of the Surgeon General serves as the MACOM in accordance with AR 415-15. If the MACOM concurs with the request, the request should be forwarded to the HQUSACE Facilities Standardization Activity (CEMP-EA).

(2) The HQUSACE Facilities Standardization Activity (CEMP-EA) will coordinate the request with the HQDA proponent for the facility type and with HQUSACE (CEMP-MA) to determine the functional, operational, scheduling or cost impacts to the project. Input may be requested from other members of the Subcommittee for the facility type, the USACE Committee, the supporting COS for the facility type, or the USACE district or MSC designing the actual project. If HQUSACE and the HQDA proponent for the facility type agree with the MACOM in waiving the mandatory or required element, the HQUSACE Facilities Standardization Activity will notify the MACOM and USACE activities involved with the project that a waiver has been allowed.

(3) In those cases where all parties cannot agree, the individual recommendations of the

MACOM, the HQDA proponent for the facility type, and the HQUSACE Facilities Standardization Activity (to include the recommendations of CEMP-MA if there are adverse impacts on the projects schedule or cost) will be submitted in writing to the Chairperson of the DA Facilities Standardization Committee or his designated representative for resolution.

(4) If the Chairperson of the DA Facilities Standardization Committee cannot resolve the issue, the DA Facilities Standardization Committee will be requested to provide a recommended solution. The COE will have final authority to resolve the issue based on the recommendation of the DA Facilities Standardization Committee.

#### **11. Updating DA Standard Design Packages.**

**a. General.** Approved DA standard design packages will be monitored and evaluated for responsiveness to user requirements and for technical adequacy. Revisions will be made when they are determined appropriate by ongoing review and evaluation.

#### **b. Procedures for Reviews and Revisions.**

(1) The Subcommittee for each facility type will be responsible for evaluating the responsiveness of the DA standard design package to the user's functional and operational requirements. The Subcommittee will monitor facilities built using the DA standard design package, evaluate their responsiveness and document the findings.

(2) The supporting COS for each facility type will be responsible for evaluating the technical performance of the DA standard design package. The supporting COS will monitor facilities built based on the approved DA standard design package (during construction and post-construction) for constructibility, engineering and technical sufficiency, life cycle cost performance, lessons-learned, technical feedback, and compliance with current design standards and construction criteria. The supporting COS will document the evaluation.

(3) HQUSACE (CEMP-EA) will ensure that facilities based on approved DA standard design packages are scheduled for DA Standard Design



Evaluation Team Visits and/or Design Criteria Feedback Inspections (DCFBI) as defined by ER 415-3-11. When directed by HQUSACE, the supporting COS will participate as an official member on these visits and inspections.

(4) The Subcommittee and the supporting COS for each facility type will coordinate their reviews and evaluations on an ongoing basis. As a minimum, the Subcommittee and the COS will meet once a year and provide a summary of their actions to the Chairperson of the DA Facilities Standardization Committee (HQUSACE, ATTN:

CEMP-EA). The Subcommittee and the supporting COS may revise the DA standard design package when required. Where the Subcommittee and the supporting COS determine that more substantive modifications to the approved DA standard design package are appropriate, the Subcommittee should transmit a recommendation to the Chairperson of the DA Facilities Standardization Committee. The Chairperson of the DA Facilities Standardization Committee will review such recommendations and provide the appropriate guidance to the COE for final approval or disapproval.

**FOR THE COMMANDER:**

3 Appendices  
APP A - References  
APP B - DA Standard Design Package  
APP C - DA Standard Design Package Development



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