

CECW-OC Regulation No. 415-2-100	Department of the Army U.S. Army Corps of Engineers Washington, DC 20314-1000	ER 415-2-100 15 Jan 93
	Construction STAFFING FOR CIVIL WORKS PROJECTS	
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DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
Washington, D.C. 20314

CECW-OC

Regulation
No. 415-2-100

15 January 1993

Construction
STAFFING FOR CIVIL WORKS PROJECTS

1. Purpose. This regulation establishes and affirms policies and procedures governing construction staffing for Civil Works projects.

2. Applicability. This regulation applies to HQUSACE/OCE elements, major subordinate commands, districts, laboratories, and field operating activities having Civil Works responsibilities.

3. References.

- a. ER 5-7-1(FR), Project Management
- b. EM 1110-2-1910, Inspection of Earthwork Construction
- c. EM 1110-2-1911, Construction Control for Earth & Rock-Fill Dams
- d. EM 1110-2-2000, Standard Practice for Concrete

4. General.

a. It is the goal of the Corps of Engineers to construct and deliver a quality product on time and within budget. The key to attaining this objective is an effective construction management system operated by an adequate number of trained and competent personnel dedicated to protecting the public interest by assuring that the work contracted is actually achieved. The appropriate number of qualified people must be placed at the point where the most critical construction is being undertaken.

This regulation supersedes ER 415-2-100, dated 8 June 1979

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b. The construction manager is responsible for all phases of a construction contract. It must be made certain that management activities are implemented to assure the contractor has complied with the requirements of the contract plans and specifications. The construction manager must plan, schedule, instruct, organize, energize, supervise and check on the work of others. These activities require experience and aptitude, both in management and construction techniques.

5. Responsibilities. The Chief, Construction/Construction Operations Division in the district/operating division is responsible for ensuring that adequate staffing is provided to attain the goal of a quality product on time and within budget. Actions required to accomplish this begin long before actual start of construction. The Chief of Construction/Construction Operations must be involved in the project planning process to ensure that project cost estimates include adequate amounts to provide the staffing required to properly supervise and administer the construction of the project. The Chief of Construction will prepare a budget of costs required to deliver the quality construction product for inclusion in the Project Management Plan (PMP). This budget must be reviewed and updated when conditions which impact the staffing requirements change.

6. Personnel Resource Allocation. Failures of dams and other structures have focused national attention upon the absolute requirement for the safety, structural integrity, and reliability of projects where failure could result in a public disaster involving loss of human life, injury, and substantial property damage. The District Commander shall utilize available personnel resources to assure that the Corps constructs a safe and high quality product. The following priority listing is a general guideline to be used for allocation of resources to Civil Works construction field offices.

- 1st.....Earth and Rock Fill Dams and Outlet Works
- 2nd.....Concrete Dams and Spillways
- 3rd.....Urban Levees and Flood Walls including integral pumping stations
- 4th.....Navigation Structures and Flood Gates
- 5th.....Powerhouses and Pumping Stations
- 6th.....Rural Levees
- 7th.....Channel and Harbors

8th.....Beach Erosion, Jetties and Groins

9th.....Recreation Facilities

10th....Relocations

Government staffing during construction of critical projects (generally priorities 1-5 of preceding list) shall provide full time quality assurance coverage with in-house personnel of all contractor operations to ensure safety and integrity of the project. For example, during concrete placement for a critical project or placement of earth or rock fill, full-time quality assurance shall be performed at the site of the placement to assure that the desired results are obtained. Quality assurance personnel assigned to these types of operations shall not be assigned other duties which would require their absence during performance of the work or otherwise divert their attention from observing fill placement. If personnel resources present a problem, then resources must be realigned on the basis that staffing of these critical projects has high priority. Existing supervision and administration (S&A) indicators and average grade and high grade ceilings are management tools, and should not be regarded as completely inflexible restrictions that could adversely impact the staffing of these critical projects. When there are insufficient or inadequately qualified Corps personnel available to staff construction projects in the District, then Title II Architect/Engineer (A/E) Services contracts should be considered (paragraph 8).

7. Staffing at Civil Projects.

a. The Chief, Construction or Construction Operations Division in the district/operating division is responsible for establishing the level of construction site staffing required for each project and for setting priorities within the district/operating division to assure that projects are adequately staffed. In making staffing decisions the Chief of Construction/Construction-Operations shall consider recommendations from area, resident and project engineers, total manpower resources available to the construction function, the type of projects and the regulatory guidance on staffing provided in this and other regulations. He/She will be cognizant of the responsibilities of the Deputy District Engineer, Project Management (DDEPM) as outlined in reference 3a. The staffing at construction sites must have the flexibility and capability to adapt to changing contractor working hours, to permit ready accommodation of field conditions differing from design assumptions, and to provide full-time surveillance of critical

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activities associated with the critical projects identified above. The staffing of field construction offices for critical projects (generally priorities 1-5 of preceding list) will be qualified personnel, preferably with key personnel having prior experience on similar work. The staff shall include technical specialists such as materials engineers, geologists, geotechnical engineers, structural engineers, electrical engineers, and mechanical engineers. Preferably these specialists shall be Corps personnel assigned full-time to the work; however, if this is not possible, this need shall be filled by the use of extended temporary duty assignments or by use of non-Corps consultants.

b. As stated in paragraph 5, early involvement in the project planning process is required to ensure project cost estimates include adequate amounts to provide required staffing to properly supervise and administer the construction of the project. To this end a staffing plan will be developed for use in estimating cost of necessary supervision and administration. For critical projects this plan should follow guidance provided in references 3b, 3c, and 3d. Reference 3c. (page 2-3) shows the sample organizational charts for projects consisting of large and small earth dams. References 3b, 3c, and 3d provide minimum staffing requirements; any deviation below these minimums must be approved by HQUSACE (CECW-OC). For non-critical projects staffing will be commensurate with the risk of and potential result of a failure. Staffing must always be adequate to ensure that the product is safe and of high quality. The reputation of the Corps demands no less.

8. Title II Service Contracts. The management functions of all Civil Works field offices must be retained in-house and not delegated. However, Title II contracts are appropriate for surveys, testing and S&I services when there are insufficient Corps personnel available. Corps assignments shall be reviewed to assure that Corps personnel are assigned to projects and activities that have the highest priority. Title II A/E service contracts may be for the entire S&I functions for minor or low priority construction (generally priorities 6-10 of the preceding list). Title II contracts may also be used for survey services for payment measurement at all projects. The use of Title II contracts will be identified in the PMP.

9. Training. When there is a shortage of qualified personnel for any specialties, recruitment efforts shall be intensified and training plans developed to fill these shortages. Training plans should be developed for all employees. These plans should ensure that needed managerial skills are developed and that appreciation and understanding of conservation, pollution abatement, and

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environmental goals are gained. Maximum use will be made of executive development and cross training assignments with the Engineering Division and other appropriate functional offices.

FOR THE COMMANDER:

A handwritten signature in black ink, appearing to read "William D. Brown". The signature is fluid and cursive, with a long horizontal stroke at the end.

WILLIAM D. BROWN
Colonel, Corps of Engineers
Chief of Staff