

Reclamation Manual

Policy

Subject:	Performing Design and Construction Activities
Purpose:	Establishes Bureau of Reclamation requirements for performing design and construction activities. The benefit of this Policy is to ensure that Reclamation effectively conducts the design- and construction-related aspects of its mission.
Authority:	Reclamation Act of 1902 and all supplementary amendments thereto; Reclamation Safety of Dams Act of 1978 as amended.
Approving Official:	Commissioner
Contact:	Deputy Commissioner, Operations (DCO) 96-00000

1. Introduction.

- A. Design and construction activities are performed within Reclamation to maintain and develop project infrastructure, respond to emergencies, and provide technical assistance in support of the agency's mission. These activities are performed by Reclamation employees located within the regions, at the Technical Service Center (TSC), by private sector contractors, or through other entities under various agency grant or cooperative agreements.
 - B. Reclamation's design and construction activities are to be conducted in a manner which ensures a high level of technical quality while recognizing the need for cost effectiveness and timeliness. Procedures for design and construction processes, and minimum standards of practice, are provided for all Reclamation managers and technical personnel responsible for design and construction activities.
 - C. Maintaining and developing a highly skilled design and construction technical capability in Reclamation is essential to meeting the specialized challenges presented by Reclamation's mission. Capability includes both human resources and the specialized facilities and equipment associated with design and construction activities. Procedures will be followed throughout the agency in identifying, scheduling, and implementing design and construction activities that support the goal of maintaining technical capability.
2. **Applicability.** This Policy applies to all Reclamation design and construction personnel, and non-Reclamation entities engaged in Reclamation design and construction activities.

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3. Definitions.

- A. **Construction Activities.** For the purposes of this Policy, construction activities include all aspects of construction management including: construction contract administration, construction inspection, materials engineering and testing, force account construction activities, and construction surveying.
- B. **Design Activities.** For the purpose of this Policy, design activities include: engineering and geologic technical studies, analysis, explorations, and instrumentation, engineering and geologic aspects of planning and environmental studies and documents, design data collection, designs and estimates at all levels of detail, construction specifications and design support during construction.

4. Responsibilities.

- A. **DCO.** The DCO has primary responsibility for developing and implementing the design and construction programs of Reclamation. The DCO is also responsible for developing and sustaining processes to ensure that Reclamation has the technical capability necessary to carry out design and construction activities.
 - B. **Regional Directors.** Regional directors are responsible for ensuring that design and construction activities are conducted throughout Reclamation in accordance with this Policy. Directors are responsible for program accomplishment of Reclamation design and construction activities within their program responsibility. Directors may assign these responsibilities, including obtaining any necessary design services required in support of individual programs, to an area manager, division chief, or other responsible official.
 - C. **TSC Director.** To allow consistent application of applicable Reclamation and industry standards, the TSC Director is responsible for establishing and maintaining, or identifying, design criteria and engineering and technical standards for all Reclamation design work. These criteria and standards will be prepared, reviewed, and approved in a manner that provides an opportunity for input from Reclamation offices, industry organizations, and water and power customer organizations.
5. **Procedures.** Procedures and minimum standards of practice will be further defined through Reclamation Manual (RM) Directives and Standards (D&S), and related guidelines.
- A. **Design Activities.**
 - (1) **Coordination of Design Activities.** Coordination among all Reclamation offices involved in design activities (which may include area offices, construction offices, regional offices, the TSC, and the Commissioner's Office) is essential to ensure that designs meet the needs of the customers and stakeholders while maintaining Reclamation standards.

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- (2) **Design Data.** The responsible official for the program is also responsible for the design data collection activities. The responsible official may obtain the services of another Reclamation office to perform this work.
- (3) **Design Criteria and Standards.** Regional directors and the TSC Director shall ensure that Reclamation criteria and standards are applied for all design work performed by Reclamation personnel within their jurisdiction. The use of Reclamation criteria and standards for design activities performed by others which is funded (all or in part) with Reclamation funds or is performed on facilities owned by Reclamation (regardless of how such work is funded) will be determined by the director with jurisdiction over the program, based on liability, financial, and other applicable issues.
 - (a) Deviations from Reclamation criteria and standards shall be submitted by the project sponsor or Reclamation employee proposing the deviation to the Reclamation project manager in accordance with RM D&S, *Design Activities* (FAC 03-03).
 - (b) If deviations from Reclamation criteria or standards are proposed on a particular project, the rationale for the deviation will be documented in a memorandum from the project manager to the responsible director. Any deviations from Reclamation criteria and standards must be peer reviewed by a Reclamation employee registered in the applicable discipline to ensure that the proposed substitute criteria and standards comply with acceptable professional practice. The results of the peer review shall be attached to the memorandum. The responsible director must formally approve of any deviation of criteria or standard prior to implementation. A copy of this approval shall be provided to the TSC Director. This information will be considered by Reclamation staff in the development of future Reclamation criteria and standards.
- (4) **Professional Registration for Designers.** Professional registration for certain Reclamation staff who approve engineering decisions or are in responsible charge of architectural or engineering designs is required to demonstrate Reclamation's commitment to adhere to the highest professional standards of practice. Professional registration requirements for engineers and architects within Reclamation are documented in RM D&S, *Professional Registration for Engineers and Architects* (HRM 05-01).

B. Drawing Development, Preparation, Maintenance, and Retention.

- (1) **Standardization of Drawings.** Drawings are a significant part of Reclamation's official record related to project design, construction, and operation. Because of the key role these records play in Reclamation's ability to fulfill its mission,

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standardized Reclamation-wide procedures for consistent and efficient development, preparation, maintenance, and retention of drawings will be followed.

- (2) **Management of Drawings.** The *Information Management Handbook*, Volume III, "Drawing Management and Drafting Standards" (issued under RM D&S, *Information Management* (RCD 05-01)) and other D&S) will provide structure for administering all phases of the life cycle of drawings.

C. Construction Activities.

- (1) **Coordination of Construction Activities.** Coordination of construction activities among all Reclamation offices, including area offices, regional offices, the TSC, construction offices, and the Commissioner's Office, is essential to ensure that construction activities are being performed in accordance with the RM.
- (2) **Professional Registration for Construction Personnel.** Professional registration is required for certain Reclamation staff who manage construction. Professional registration requirements for construction personnel are documented in HRM 05-01.
- (3) **Construction Services.** Reclamation's general practice is to perform by contract the acquisition of materials and construction services, including the requirements for new construction, alterations, and rehabilitation of Reclamation facilities. Reclamation construction work can be accomplished by Government forces where it is determined to be in the best interests of the Government.

D. Development and Maintenance of Design and Construction Technical Capabilities.

Procedures identified below shall be performed in accordance with RM Policy, *Bureau of Reclamation's Business Model for Managing Technical Services* (CMP P10).

- (1) **Utilizing Staff Resources.** Reclamation staff resources, in combination with support from private contractors, shall accomplish the design and construction workload in a manner that fully utilizes Reclamation's staff capability and supports maintenance of core technical capabilities while meeting workload demands in a timely, efficient, and cost-effective manner. Reclamation's design and construction service providers are the providers of choice for these technical services.
- (2) **Advanced Planning.** Responsible officials will jointly develop and document work plans with the TSC and regional design and construction service providers in accordance with RM D&S, *Advance Planning for Technical Services Work* (CMP 10-01) to ensure that Reclamation resources are used in the most efficient manner.

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- (3) **Services for Non-Reclamation Clients.** Performing reimbursable design or construction services for non-Reclamation clients is an acceptable means to maintain capabilities required for future Reclamation work. Each director shall establish and document management review processes to ensure that liability, financial, and other issues are appropriately addressed and that the work is consistent with Reclamation's mission.
- (4) **Maintaining Capability.** Factors relative to maintaining and developing technical capability shall be considered when determining who will perform design and construction activities on individual projects. Personnel actions that disperse technical expertise should be avoided, and opportunities to consolidate design and construction organizations as the workload allows should be considered.
- (5) **Funding.** All Reclamation activities required by this Policy will utilize appropriated funds or funds received from other sources (e.g., offsetting collections). All non-Reclamation work must be fully reimbursed by the non-Reclamation client.

RECLAMATION MANUAL TRANSMITTAL SHEET

Effective Date: _____

Release No. _____

Ensure all employees needing this information are provided a copy of this release.

Reclamation Manual Release Number and Subject

Summary of Changes

NOTE: This Reclamation Manual release applies to all Reclamation employees. When an exclusive bargaining unit exists, changes to this release may be subject to the provisions of collective bargaining agreements.

Filing instructions

Remove Sheets

Insert Sheets

All Reclamation Manual releases are available at <http://www.usbr.gov/recman/>

Filed by: _____

Date: _____