

# Reclamation Manual

## Directive and Standard

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- Subject:** Operational Configuration Management
- Purpose:** To ensure facilities, systems and equipment are operated within their designed or intended configuration. Further, to establish requirements for communicating, authorizing and documenting any changes to the operational configuration of Critical Assets. These requirements are essential to ensure personnel safety and the continuity of mission critical functions. The primary benefit of this Directive and Standard (D&S) is to establish operational control of Critical Assets at Bureau of Reclamation facilities.
- Authority:** Reclamation Act of 1902 (June 17, 1902; ch.1093; 32 Stat. 388); Town Sites and Power Development Act of 1906 (April 16, 1906; Pub. L. 59-103; 34 Stat. 116); Federal Power Act of 1920 (June 10, 1920; Pub. L. 66-280; 41 Stat. 1063); Reclamation Project Act of 1939 (August 4, 1939; Pub. L. 76-260; 53 Stat. 1187); Department of Energy Organization Act (August 4, 1977; Pub L. 95-91; 91 Stat. 565); Energy Policy Act of 1992 (October 24, 1992; Pub. L. 102-486; 106 Stat. 2776); Energy Policy Act of 2005 (August 8, 2005; Pub. L. 109-58; 119 Stat. 594); and Federal Energy Regulatory Commission approved Mandatory Reliability Standards for the Bulk-Power System (18 CFR Part 40); Flood Control Act of 1944 (Act of December 22, 1944, Ch. 665, 58 Stat. 887) and acts relating to individual dams, projects, and environmental compliance.
- Approving Official:** Senior Advisor, Hydropower
- Contact:** Power Resources Office (PRO) (86-51000)
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1. **Introduction.** Reclamation facilities are designed and constructed to allow for safe, reliable equipment or systems operation. The designed operational configuration provides for the protection of equipment, safety of personnel, and efficient delivery of Reclamation's mission for the facility. Changes to the normal operational configuration may be necessary for unusual operating conditions or when performing upgrades, replacements, maintenance, testing, or repair of systems or equipment. This D&S establishes Operational Configuration Management Plan (OCMP) requirements for Critical Assets to ensure personnel safety and equipment reliability.
2. **Applicability.** This D&S applies to Reclamation employees who work with Critical Assets at Reclamation reserved works water and/or power delivery facilities.

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### 3. Program Requirements and Responsibilities.

- A. The PRO Manager ensures that power facility OCMPs are reviewed annually and the OCMPs reviews are incorporated in accordance with Reclamation Manual (RM) D&S, *Power Review of Operations and Maintenance Program* (FAC 04-01).
- B. The Asset Management Division Manager ensures non-power facilities with qualifying Critical Assets have their OCMP reviews included in accordance with RM D&S, *Review/Examination Program for High and Significant Hazard Dams* (FAC 01-07). OCMP reviews will also be included in accordance with RM D&S, *Review of Operation and Maintenance Program Examination of Associated Facilities for Facilities Other Than High- and Significant-Hazard Dams* (FAC 01-04).
- C. Area managers ensure that OCMP reviews are conducted based on the requirements and standards established by the program under which the facility is routinely inspected.
- D. Facility managers will be responsible for conducting a periodic review and evaluation of the effectiveness of the facility OCMP. A report will be submitted to the area manager. The area manager will submit the report to the appropriate regional level manager. The regional level manager will submit the report to the appropriate Denver level office (e.g., for power, the regional power manager will submit report and findings to PRO for final review and evaluation).
- E. Qualifying Critical Assets are determined by the facility manager using the definition of Critical Asset in this document.

### 4. OCMP Procedural Requirements.

- A. Facility managers must develop an OCMP for Critical Assets for which they are responsible. The OCMP will define operational configuration change controls, configuration change documentation, and the authorization process for abnormal operational configuration restoration.
- B. Facility managers must develop procedures to ensure equipment or systems are restored to the designed or intended operational configuration prior to return to service or to an abnormal operational configuration, provided the changes are properly authorized, documented, communicated and tracked.
- C. Facility managers must include in the OCMP local procedures to ensure protection systems and any configuration designed for personnel safety meet the designed or intended operational configuration requirements prior to system restoration or energization. These systems are subject to all the OCMP requirements for prior authorization before implementing any abnormal operational configuration.

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Notification procedures are required for operations and maintenance staff to be aware of the configuration status or special conditions of systems and plant equipment that may affect them.

- D. For High and Significant Hazard Potential Dams, facility managers must also include in the OCMP local procedures to ensure that any abnormal operational configurations that could reduce or affect facility designed operational release capacity (e.g., changes that affect the outlet works, powerplant penstocks, and/or spillway control systems, changes to standard operating procedures or operational parameters etc.) are reported to the Regional Dam Safety Coordinator and to the Dam Safety Office in accordance with RM D&S, *Dam Safety Performance Monitoring for High and Significant Hazared Dams* (FAC 01-08) and RM Policy, *Decisions Related to Dam Safety Issues* (FAC P02) prior to implementation. All water conveyance facilities with qualifying Critical Assets are subject to the OCMP requirements for prior authorization before implementing any abnormal operational configuration that impacts the facilities designed operational release capacity. Notification procedures are required for operations and maintenance staff to be aware of the configuration status or special conditions of systems and plant equipment that may affect them.

### 5. Definitions.

- A. **Critical Assets.** Critical equipment or any system, asset, or component directly involved in the delivery of water or power whose failure could cause one or more of the following:
- (1) a loss of control of water conveyance;
  - (2) load reduction or shutdown of power generation;
  - (3) a loss or reduction of transmission capability or capacity;
  - (4) serious personnel injury; and/or
  - (5) an environmental hazard resulting in harm to the public, environment, or damage to public property.
- B. **Operational Configuration Management.** The process of managing deviations from designed operational configuration, including a procedure for tracking and restoring to normal operating conditions or authorized abnormal operating conditions of a Critical Asset.
- C. **Operational Configuration Management Plan or OCMP.** A developed, documented, and approved plan for each facility to authorize, document, and control configuration changes made to systems or equipment.

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- D. **Operational Control.** The process to assure operational configuration change approval, document configuration changes, and process to verify restoration of system or equipment status to designed or authorized configuration.
  - E. **Protection System.** Any combination of protection system elements that measure or analyze physical or electrical properties to detect abnormal or dangerous conditions, including the communication paths or circuitry between devices to the degree that adjustments to the path or circuitry can alter the operational status of the equipment. This includes protective relays and associated networks, lockouts, transducers, CO<sub>2</sub> systems, and fire systems.
  - F. **Reserved Works.** Reclamation-owned facilities for which Reclamation manages and performs operations and maintenance, either with Reclamation personnel or through a maintenance contract.
6. **Review Period.** The originating office will review this release every 4 years.

## 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: \_\_\_\_\_