

Reclamation Manual

Directives and Standards

Subject: Power Review of Operation and Maintenance (PRO&M) Program

Purpose: Provides periodic assessment of each power facility to evaluate the application and effectiveness of the Power O&M Program. The program evaluates the local O&M program performance and accomplishments against measurable program goals and performance standards.

Authority: Reclamation Project Act of 1902, other applicable laws, Executive orders, judicial decisions, policies, and regulations.

Contact: Power Resources Office, D-5400

1. Program Goals.

- A. Facilities will be operated effectively, economically, and commensurate with Reclamation and industry standards.
- B. Facilities will be managed to provide optimal value to customers and stakeholders.
- C. Facilities will be managed to protect the Federal investment.
- D. Facilities will be operated and maintained to provide reliable service.
- E. Facilities will be operated and maintained in adherence to applicable safety and environmental requirements and do not create unacceptable risks to public safety, property, the environment, or cultural resources.
- F. Facilities will be operated and maintained in compliance with legal and contractual provisions, associated environmental agreements and constraints, and within project authorizations.

2. Program Implementation.

A. Responsibilities.

- (1) It is the responsibility of each regional office to maintain a comprehensive inventory of the power facilities within its jurisdiction. In addition, each regional office will clearly define which facilities will be reviewed under these directives and those to be reviewed under the Reclamation Manual, *Directives for the Review of Operation and Maintenance (RO&M) Program Examination of Associated Facilities* (FAC 01-04). Each regional office will ensure that all power facilities receive Annual and Periodic PRO&M's as required in these

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directives and standards. The Director of Operations sponsors the Comprehensive Reviews. Implementation of new or revised directives and standards may have an impact on the labor-management relationship. For example, if a new procedure changes existing conditions of employment or establishes a new personnel policy or practice at the local level of recognition, consultation and/or negotiation with the exclusive representative may be required. The labor-management relations specialist for your region will be able to provide help and guidance if you have a question or concern.

- (2) Each area office will have the authority and responsibility to act on any and all recommendations developed within the PRO&M.

B. Funding.

- (1) Reclamation PRO&M will be funded by each facility with costs distributed in the same manner as other O&M costs. Actual Office of Policy and Technical Service Center costs associated with conducting a Comprehensive Review will be charged to the appropriate facility only in the year the review takes place.
- (2) Annual costs incurred by the Office of Policy and the Technical Service Center in maintaining the core program and meeting reporting requirements which cannot be allocated to individual facilities will be funded via Power Program Services funding distribution.

C. **Coordination With Other Programs.** Whenever possible, the reviews associated with this directive will be coordinated with other review programs. Such programs include, but are not limited to, the RO&M Program Examination of Associated Facilities and the Review/Examination Program for High- and Significant-Hazard Dams.

D. **Variance.** Variances from these directives will not be allowed unless approval is received in writing from the Regional Director.

3. **Review Procedures.** The review procedures for power facilities will consist of the following:

A. Annual Review.

- (1) **Scope.** The intent of the Annual Review is to ensure that the facilities are meeting the minimum standards of the Power O&M Program through review by the local operating office. A detailed overview of the power facility is performed using a checklist developed specifically for that power facility. This checklist will provide standards for maintenance and operations against which

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the facility's performance can be measured. A general checklist will be provided by D-5400. The checklist is to be modified by each area office to reflect local conditions, maintenance and operations practices, and recommendations.

- (2) **Frequency.** Annual Reviews should be conducted on an annual basis, excluding years when Periodic or Comprehensive Reviews are performed.
- (3) **Responsibility.** Annual Reviews will be coordinated and directed by the Area Manager. The Regional Director will ensure that all power facilities receive Annual and Periodic PRO&M.
- (4) **Content.** The review content will be documented on checklists developed specifically for each plant being reviewed.
- (5) **Personnel.** Annual Reviews will be conducted by the facility operating office or other entity as determined by the Area Manager.
- (6) **Reviewer Qualifications.** Personnel involved in Annual Reviews must have an understanding of O&M of power facilities.
- (7) **Documentation.** Annual Reviews will be documented by completing facility specific checklists, identifying new recommendations, and providing the status of any outstanding Periodic or Comprehensive Review recommendations or incident evaluation recommendations. The completed checklists will be signed by each member of the review team and submitted to the Area/Facility Manager and Reclamation's Maintenance Program Officer, D-5000. The completed checklists will be maintained in the operating offices and area offices.
- (8) **Recommendations.** Recommendations made in Annual Reviews will be primarily for the use of the area office. However, these recommendations may be adopted in the upcoming Periodic and Comprehensive Reviews.

B. Periodic Review.

- (1) **Scope.** The intent of a Periodic Review is to ensure that facilities will be meeting required standards of the Power O&M Program. Periodic Reviews will be broader in scope, broader in review team composition, and more detailed in content than the Annual Review. In addition to review of the annual checklists, Periodic Reviews will entail interviews with plant personnel, visual inspections of equipment, and spot-checking maintenance records to ensure full compliance with standards. The Periodic Review will cover the full

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scope of the O&M program including, but not limited to, O&M management practices; facility operations; facility condition assessment; electrical, mechanical, and civil maintenance; security; communications; safety; contractual compliance; public safety; and status and schedule of rehabilitation, life extension, and/or modernization work.

- (2) **Frequency.** Periodic Reviews will be conducted at each facility every 6 years and will be scheduled to alternate with the Comprehensive Reviews so that either a Periodic or Comprehensive Review takes place once every 3 years.
- (3) **Responsibility.** Periodic Reviews will be coordinated and directed by the Regional Director.
- (4) **Content.** As a minimum, the review will encompass the following items:
 - (a) Evaluation of the Annual Review Program and checklists to ensure they meet the specific needs of the facility.
 - (b) Identification of problem areas.
 - (c) Review of selected test results and records.
 - (d) Status of review or incident recommendations.
 - (e) Visual inspection of facility and equipment.
 - (f) Interviews with selected facility staff.
 - (g) Evaluation of the overall state of the facility's program in relation to Reclamation and industry standards.
 - (h) Formal documentation of review findings and recommendations.
 - (i) Evaluation of management practices.
 - (j) Review of rehabilitation work items and schedules.
 - (k) Confirmation of completion of Safety and Health Evaluation and Inspection.
 - (l) Review of contracts and authorizing legislation to confirm compliance.

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- (m) Evaluation of maintenance practices and records to verify compliance with Reclamation and industry standards.
 - (n) Verification that the project is being managed to protect the Federal investment.
 - (o) Confirmation of completion of Annual Security Assessment Report.
 - (p) Confirmation of completion of Environmental Review.
 - (q) Confirmation that facilities will continue to provide dependable and sustainable service to authorized project beneficiaries.
 - (r) Ensurance that facilities adhere to applicable safety and environmental requirements so that they do not create an unacceptable risk to public safety and welfare, property, environment, or cultural resources.
 - (s) Recognition of exceptional and/or innovative practices and approaches.
 - (t) Review of maintenance management practices.
 - (u) Verification that power facilities adhere to condition assessments based on Reclamation established criteria (reference *Power O&M Review Guidebook*, Appendix J, *Power Facility Condition Assessment Instructions and Worksheet*) and provide a facility condition assessment indicator based on area office documentation.
- (5) **Personnel.**
- (a) Periodic Reviews will be conducted by a team designated by the Regional Director or another office and at least one office removed from the area office. The review team will provide a balance between internal and external representation, normally consisting of a representative from the area office, a representative from the regional office, and other specialists as determined by the needs of the facility. Reclamation's Maintenance Program Officer may elect to participate in reviews.
 - (b) Upon completion of the onsite review, an exit briefing will be conducted with appropriate facility and area office staff to review the findings and proposed recommendations.
- (6) **Reviewers' Qualifications.** The review team is required to have a thorough knowledge of operation, maintenance, and safety of power facilities. Team

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members will have a strong background in power O&M or have specialized expertise as required by the needs of the facility.

(7) **Documentation.**

- (a) A formal report will be prepared detailing the findings and recommendations of the Periodic Review. A recommended report format will be provided separately from these directives and standards. The report will include the status of previous recommendations, recommendations from incident evaluations, details and reasoning for new recommendations, narrative describing conditions found, and representative photographs or illustrations that document conditions.
- (b) Periodic Review reports will be completed and transmitted to the appropriate local operating office, Area Manager, Regional Director, and Reclamation's Maintenance Program Officer preferably within 60 days but no later than 120 days following the actual review date.

C. **Comprehensive Review.**

- (1) **Scope.** The Comprehensive Review expands the scope of the Annual and Periodic Reviews to an extensive Power O&M Program audit of the power facilities. Comprehensive Reviews will provide a corporate perspective on the review of the Power O&M Program, including liaison to upper management that will highlight problems and successes.
- (2) **Frequency.** Comprehensive Reviews will be conducted at each facility every 6 years and will be scheduled to alternate with the Periodic Reviews so that either a Periodic or Comprehensive Review takes place once every 3 years.
- (3) **Responsibility.**
 - (a) Comprehensive Reviews will be sponsored by the Director of Operations and coordinated and directed by the Office of Policy.
 - (b) The Regional Director's appointee will provide periodic updates on the status of the recommendations to the Power Resource Office.
- (4) **Content.** Specific technical content of Comprehensive Reviews is the same as the Periodic Review; however, Comprehensive Reviews will focus on two aspects:

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- (a) **Corporate Perspective.** This provides local managers a corporate perspective on the Power O&M Program. This aspect is concerned with application of technical standards and power program practices. This aspect is achieved by performing the Comprehensive Review using Technical Service Center and Office of Policy staff from Denver. This participation ensures:
 - (i) An audit of the implementation of the Power O&M Program according to Reclamation standards.
 - (ii) Achievement of the local Power O&M Program goals as they relate to Reclamation goals.
 - (iii) An exchange of information derived from the corporate perspective that can directly improve the local Power O&M Program.
- (b) **Management Liaison.** This provides upper-level Reclamation managers information and liaison to facilitate understanding of problems and successes that will result in improvements in the Power O&M Program. This aspect is achieved through the Review Report, including recommendations, and the periodic briefing of managers by the Power Resources Office.
- (5) **Personnel.** Comprehensive Reviews will be conducted by a team designated by the Office of Policy (Power Resources Office, D-5400). Participants include Reclamation's Maintenance Program Officer, Technical Service Center staff, Office of Policy staff, and regional office power specialists in addition to area office and facility staff and non-Reclamation entities.
- (6) **Reviewer Qualifications.** Qualifications of facility, area office, and regional office participants in Comprehensive Reviews will be the same as for Periodic Reviews. Technical Service Center and Office of Policy staff from Denver must have all of the following qualifications:
 - (a) Must have thorough knowledge, skills, and abilities in the area they are reviewing.
 - (b) Must have full-time Reclamation employment in an area of responsibility directly related to the area they are reviewing.
 - (c) Must have attended "Power O&M Workshop" within the last 5 years.

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- (7) **Documentation.** Comprehensive Reviews will result in a published report to the appropriate Regional Director, the Director of Operations, and the Maintenance Program Officer. The report will contain all official recommendations prioritized by urgency. Recommendations will be developed mutually by all participants and the review report will be published by the Power Resource Office. The report will be signed by the Manager, Power Resources Office, and co-signed by the team members. Format, distribution, and specific content are defined in the *Power O&M Review Guidelines*. The report will include the status of recommendations from previous reviews or incident evaluations for recommendations which have not been completed.
- (a) Upon completion of the onsite review, an exit briefing will be conducted with appropriate staff to review the findings and proposed recommendations.
 - (b) The Regional Director will provide to the Power Resources Office, as described in paragraph 4C, status of the incomplete review recommendations.
 - (c) The Power Resources Office will publish a summary report annually on the Comprehensive Reviews for the Director of Operations, Regional Directors, and Reclamation's Maintenance Program Officer.
 - (d) Comprehensive review reports will be completed and transmitted (within 60 to 120 days) to the appropriate Area Manager, Regional Director, Director of Operations, and Reclamation's Maintenance Program Officer.

4. Annual Reporting of Power Facility O&M.

- A. **Scope.** Annual reporting requirements are intended to promote the collection of factual input and objective evidence to assess the effectiveness of the power O&M program, including accomplishments, goals, and adequacy of technical standards; O&M business practices; review program; power improvement program; and safety, security, environmental, and associated programs.
- B. **Responsibility.**
- (1) **Regional Director.** Regional Directors will conduct an annual power O&M meeting with each Area Manager in their region with power facilities.
 - (2) **Area Managers.** Each Area Manager will prepare an annual power O&M report. The Area Manager will present and discuss power O&M issues, activities, and accomplishments at a meeting attended by the Regional

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Director, Area Managers, Reclamation's Maintenance Program Officer, and a representative from the Power Resources Office.

- C. **Content.** The annual power O&M report will focus on three primary areas:
- (1) **Accomplishments.** The report will include replacements; major repairs; enhancements; production/consumption; benchmarking against Reclamation and industry standards; performance measures; and status of previous recommendations from reviews, incidents, travel reports, or other sources.
 - (2) **Goals.** The report will be used to help facilitate goals including: development of performance measures, upcoming repairs, life extension or modernization, any unique or difficult issues, and operational anomalies or constraints.
 - (3) **Evaluation of Existing Power O&M Program.** The report will include any unique or challenging issues, effectiveness of the PRO&M, Power Improvement Program, adequacy of business practices, and adequacy of technical standards and procedures.
- D. **Recommendations.** Any recommendations developed from or agreed to at the meeting will be documented as Category 1, 2, or 3 recommendation and tracked by the Power Review Information System as described below.

5. Categorizing and Tracking Recommendations and Dispute Resolution.

A. Recommendations.

- (1) Recommendations resulting from Periodic and Comprehensive Reviews will be included in the review report and tracked to completion.
- (2) Recommendations pertaining to associated programs outside of power O&M programs will be forwarded to the appropriate program office.

B. Categorizing. Recommendations will be of the following categories:

- (1) **Category 1.** Recommendations involving correction of severe deficiencies where immediate and responsive action is required to ensure structural, safety, and operational integrity of a facility.
 - (a) Based on the severity of the deficiency and the condition at the time of the examination, the review team will prescribe an appropriate timeframe for completing the recommendation. Suggested remedial measures will be discussed at the exit briefing and included in the examination report.

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Within 30 days following preparation or receipt (depending on office conducting the review) of the report, the responsible Regional Director will notify the Director, Office of Policy, D-5000; the Maintenance Program Officer, D-5000; the Power Resources Office, D-5400; the Director, Operations, W-6000; and the Director, Technical Service Center, D-8400, of the plans for accomplishing the work and a scheduled completion date.

- (2) **Category 2.** Recommendations covering a wide range of important matters where action is needed to prevent or reduce further damage or preclude possible operational failure of the facility.
 - (a) Recommendations will be acted upon as soon as practicable following receipt of the report. It is desirable that those recommendations that can be included, scheduled, and accomplished as part of the normal O&M program be undertaken as soon as weather or water conditions allow. Some recommendations require a longer time to accomplish because of the need to budget funds; complete designs; or secure equipment, materials, or personnel. In such cases, the related planning and budgeting should be initiated in a timely manner.
 - (b) Any Category 2 recommendation remaining incomplete at the time of the following examination will be addressed during that examination and within the corresponding examination report.
 - (3) **Category 3.**
 - (a) Recommendations covering less important matters but believed to be sound and beneficial suggestions to improve or enhance the O&M of the project or facility.
 - (b) The status of each Category 3 recommendation will be provided in the subsequent examination report. If the recommendation is still applicable, a current year designation should be used.
- C. **Tracking.** Recommendations will be entered into the Power Review Information System by the area/regional office. Area offices will be responsible for updating the completion status of all current recommendations.
- (1) **Annual Summary Report.** A summary report, providing an indication of effectiveness in accomplishing Category 1 and 2 recommendations related to the power facilities, will be prepared annually by the Power Resources Office. The summary report will highlight Reclamation Power O&M Program

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problems and successes, status of recommendations, and recommendations appropriate for Reclamation management action.

- D. **Dispute Resolution.** Disagreement with report findings or disputed recommendations will be documented in writing by the Regional Director to the Director of Operations within 90 days of report publication. Disputes will be resolved by the Reclamation Dispute Resolution Process as defined in the *Conflict Management Guidebook* published in August 1998.