

Reclamation Manual

Directives and Standards

Subject:	Power Recommendation Tracking
Purpose:	To establish requirements for tracking recommendations that result from reviews relating to the Power Operations and Maintenance (PO&M) Program. The Bureau of Reclamation benefits from this Directive and Standard (D&S) by consistently tracking recommendations concerning the improvement of PO&M and compliance activities, which ensures accountability throughout the PO&M Program.
Authority:	The Reclamation Act of 1902 (Act of June 17, 1902, 32 Stat. 388), the Town Sites and Power Development Act of 1906 (Act of April 16, 1906, ch. 1361, 34 Stat. 116), Reclamation Project Act of 1939 (Act of August 4, 1939, ch. 418, 53 Stat. 1187), the Flood Control Act of 1944 (Act of December 22, 1944, ch. 665, 58 Stat. 887); the Department of Energy Act of 1977 (Act of August 4, 1977, Pub. L. 95-91, 91 Stat. 565), Energy Policy Act of 2005 (Act of August 8, 2005, 119 Stat. 594), acts relating to individual dams or projects.
Approving Official:	Senior Advisor - Hydropower
Contact:	Manager - Power Resources Office (86-61000)

1. Introduction.

Reclamation provides recommendations to power facility management through various power reviews and technical reports. Recommendations are related to Reclamation PO&M practices, electric reliability compliance requirements, and other industry standards. This D&S creates standards for providing recommendations in these reports and requires that recommendations be tracked in the Power Review Information System (PRIS) to ensure that necessary work is planned, scheduled, and completed.

2. Applicability.

This D&S applies to all Reclamation owned and operated power facilities, and transferred works power facilities where Reclamation gives recommendations.

3. Requirements and Responsibilities.

A. Responsibilities.

- (1) Reviewers conduct reviews in their area(s) of expertise and provide material for review reports and:
 - (a) Provide technical justification for any recommendations;

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- (b) Discuss a reasonable timeframe for completion of recommendations in the review report if risks necessitate;
 - (c) Allow affected offices time to review reports for accuracy by sending a copy of the draft report to the facility manager, area manager, regional power manager, and Manager - Power Resources Office (PRO).
- (2) The Manager - PRO reviews recommendations prior to the publishing of reports. Also reviews Category 1 recommendations for required concurrence.
 - (3) The Senior Advisor - Hydropower communicates with regional directors and resolves any recommendation issues.

B. Tracking.

The Senior Advisor - Hydropower, is responsible for establishing the power recommendation tracking requirements. The Director, Dam Safety and Infrastructure, is responsible for administering PRIS. The Manager - PRO coordinates the design needs of PRIS with the appropriate offices. All recommendations are tracked to completion or resolution in PRIS. Regional directors, regional power managers, and area managers ensure recommendations are entered into PRIS within 30 days after receipt of a review report and update recommendations as they are planned and completed at least quarterly (by January 15, April 15, July 15, and October 15).

Regional directors ensure area offices complete or resolve all recommendations. Facility managers are responsible to complete or resolve all recommendations. Facility managers plan, budget, schedule, and allocate staff and resources to complete recommendations. Regional power managers provide review and oversight of recommendations completed or resolved by area offices.

C. Assigning a Recommendation Number.

Each reviewer categorizes each recommendation and assigns a recommendation number, which defines the date of the review producing the recommendation, the area of the recommendation, the category of the recommendation, and a sequential identifier (e.g., A, B, C, etc.). Recommendation numbers are formatted as follows: YYYYMMDD-area-category-sequential identifier (for example, 20140620-M-2-A). Recommendation areas are:

- AF – Arc Flash Hazard Analysis
- E – Electrical
- ER – Unexpected Event Report
- FR – Facility Equipment Rating Review
- G – Management
- M – Mechanical

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N – NERC/WECC¹ Compliance
O – Operations
PB – Power Equipment Bulletin
PS – Protection System
RR – Protective Relay Review
S – Structural
SA – Serious Accident Investigation
SC – SCADA-ICS
SI – Special Investigation

D. Recommendation Status.

All recommendations will be designated as completed, deleted, or incomplete in PRIS. Facility managers report the status of recommendations to the area manager and submit the status of recommendations to allow PRIS updates at least quarterly. Area managers report the status of recommendations to regional power managers and regional directors. Regional directors provide updates on the status of recommendations within their region during annual PO&M meetings.

E. Planning and Completion Timelines.

- (1) Category 1 Recommendations.
 - (a) Reviewers discuss and reach consensus on potential Category 1 recommendations to ensure the Category 1 definition is met. The Manager - PRO must concur with any proposed Category 1 recommendation before they are issued.
 - (b) Reviewers advise regional power managers, area managers, and facility managers of potential Category 1 recommendations.
 - (c) Based on the severity of the deficiency or condition identified at the time of the review, the reviewers prescribe an appropriate timeframe for completing Category 1 recommendations. Category 1 recommendations should generally be completed within one year from the date the recommendation is issued. Reviewers suggest remedial measures at an exit briefing or in the review report.
 - (d) Within 30 days following receipt of a Category 1 recommendation, the regional director provides plans for accomplishing the recommendation,

¹ North American Electric Reliability Corporation (NERC); Western Electricity Coordinating Council (WECC)

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including a corrective action plan with milestones, a cost estimate, and a scheduled completion date, to the following:

- (i) Deputy Commissioner - Operations;
 - (ii) Chief Engineer;
 - (iii) Senior Advisor - Hydropower; and
 - (iv) Manager - PRO.
- (e) The Manager - PRO, reviews submitted plans for accomplishment and completion of all Category 1 recommendations and provides oversight of power recommendation tracking. This includes:
- (i) Ensuring regions submit their plans within 30 days.
 - (ii) Receiving communication of quarterly PRIS updates on recommendation accomplishment from the regions.
- (f) When a Category 1 recommendation is completed, the regional director submits a completion memorandum summarizing actions taken to complete the recommendation to the following:
- (i) Deputy Commissioner - Operations;
 - (ii) Chief Engineer;
 - (iii) Senior Advisor - Hydropower; and
 - (iv) Manager - PRO.
- (2) Category 2 Recommendations.
- (a) Category 2 recommendations must be acted upon as soon as reasonable following receipt of the review report. Some recommendations require more time to accomplish because of the need to complete designs or secure equipment, materials, or personnel. Regional offices should prioritize recommendations to assist with timely completion.
 - (b) Within 90 days following receipt of a Category 2 recommendation, the area manager provides plans for accomplishing the recommendation, including a cost estimate, and the scheduled completion date, to the regional power manager through PRIS.

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- (3) Category 3 Recommendations.
 - (a) Category 3 recommendations must be completed or resolved prior to the next comprehensive facility review (CFR) or periodic facility review (PFR).
 - (b) Within 90 days following receipt of a Category 3 recommendation, the area manager provides plans for accomplishing the recommendation, including a cost estimate, schedule, and explanation of any alternate course of action or why no action will be taken, to the regional power manager through PRIS.

F. Information Required in PRIS.

The following information must be entered into PRIS for all complete, incomplete, or deleted recommendations:

- (1) the names, offices, and titles of parties involved in the decision to complete, update, or delete a recommendation;
- (2) a brief explanation of what was required to meet the requirement;
- (3) Capital Asset and Resource Management Application (CARMA) work orders or other supporting documentation associated with completing the recommendation;
- (4) the name of the person who updated the recommendation in PRIS;
- (5) date of the update; and
- (6) the estimated cost for completing the recommendation.

G. Deleting.

Prior to deleting a recommendation in PRIS, one of the following must occur:

- (1) consensus among the Manager - PRO, the area manager, the regional power manager, and, if possible, the reviewer(s) to delete the recommendation;
- (2) a subsequent reviewer recommends deletion based on sound technical judgment or changes in conditions or requirements;
- (3) the original reviewer rescinds the recommendation; or
- (4) the recipient corrects an administrative error in the initial entry (e.g., a duplicate entry or the wrong facility).

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H. Dispute Resolution.

Reviewers make every effort to informally resolve disagreements regarding report findings or recommendations with facility managers before issuing a review report. When disputes cannot be resolved at this level, the reviewer must consult with the area manager, regional power manager, and Manager - PRO to identify an equitable solution. If this is not successful, the regional director documents the disagreement in writing within 30 days of the final review report and submits to the Senior Advisor - Hydropower, who will seek a resolution and make a final determination.

4. Definitions.

A. Annual Facility Review or AFR.

A review of management, operations, Supervisory Control and Data Acquisition-Industrial Control Systems (SCADA-ICS), mechanical maintenance, and electrical maintenance performed by local facility personnel.

B. Arc Flash Hazard Analysis.

A study investigating a worker's potential exposure to arc flash energy, conducted to prevent injuries, determine safe working practices, and determine the appropriate level of personal protective clothing and equipment.

C. Comprehensive Facility Review or CFR.

A review of management, operations, SCADA-ICS, mechanical maintenance, and electrical maintenance performed every six years by personnel external to the region.

D. Facility Equipment Rating Review.

A review that evaluates the loading and protective capabilities of power facility equipment.

E. Periodic Facility Review or PFR.

A review of management, operations, SCADA-ICS, mechanical maintenance, and electrical maintenance performed every six years by personnel internal to the region.

F. Power Review Information System or PRIS.

The system used to track recommendations.

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G. Protective Relay Review.

A detailed evaluation of the application and coordination of plant protective systems under normal and abnormal conditions.

H. Recommendation.

An action required by facility management to implement a Reclamation PO&M practice, electric reliability compliance requirement, industry standard, or a suggested improvement.

(1) **Category 1.** Recommendations to correct severe deficiencies where immediate and responsive action is required. For example:

- (a) structural integrity (soundness of the facility structure and operating equipment necessary to prevent catastrophic failure).
- (b) compliance with legal or regulatory requirements, such as power-related safety and environmental practices necessary to protect the life or health of employees, visitors, the public, or the environment.
- (c) conditions or practices that pose a high risk to the reliability of the Bulk Electric System.

(2) **Category 2.** Recommendations that cover a wide range of important matters where action is required to:

- (a) prevent or reduce further damage to equipment;
- (b) preclude possible structural failure or operational disruption; or
- (c) ensure compliance with mandatory safety requirements, Reclamation Technical Documents, or industry and regulatory standards.

(3) **Category 3.** Recommendations covering matters believed to be sound and beneficial suggestions to improve or enhance the PO&M or electric reliability compliance programs.

I. Reliability Compliance Audit.

The evaluation of Reclamation's compliance with NERC and WECC reliability standards.

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J. Review Report.

Any report including power recommendations; for example, an Arc Flash Hazard Analysis; Facility Equipment Rating Review; power AFR, CFR, PFR, or TFR; Protective Relay Review; Reliability Compliance Audit; Serious Accident Investigation; Special Investigation; or Unexpected Event Report.

K. Reviewer.

The subject matter expert that develops a review report.

L. Serious Accident Investigation.

An investigation conducted following the Interagency Serious Accident Investigation Guide of an unplanned event or series of events that resulted in death, injury, occupational illness, or substantial damage to or loss of equipment or property.

M. Special Investigation.

The investigation of specific equipment, events, or programs. Examples include investigations of significant unexpected operations at power facilities, events involving personnel safety, or specialized facility inspections such as dive inspections, facility hazardous energy control program reviews, penstock inspections, pressure vessel inspections, travel reports, and other facility assessments.

N. Technical Documents.

Any of the Facilities Instructions Standards and Techniques (FIST) Manuals, Power Equipment Bulletins (PEBs), and Power Reliability Compliance Bulletins (PRCBs) that define Reclamation's PO&M requirements.

O. Transferred Works Power Facility Review.

A review of operations, mechanical maintenance, electrical maintenance, and associated equipment at transferred works power facilities performed by Reclamation personnel.

P. Unexpected Event Report.

A report regarding an unanticipated action involving components or systems related to power generation or water delivery. Unexpected Event Report recommendations must be tracked in PRIS for events involving relay misoperations or requiring a corrective action plan in accordance with FIST 6-3, Unexpected Event Reporting.

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5. Review Period.

The originating office will review this release every 4 years.