178 FERC ¶ 61,014 UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Safety of Water Power Projects and Project Works

Docket No. RM20-9-000

ERRATA NOTICE

(January 12, 2022)

On December 16, 2021, the Commission issued a final rule in the above captioned docket.¹ In Order No. 880, the Commission amended its regulations governing the safety of hydroelectric projects licensed by the Commission under the Federal Power Act. Subsequent to the Commission's issuance of Order No. 880, the *Federal Register* published the final rule on January 11, 2022.² In publishing the final rule, the *Federal Register* requested editorial revisions to footnotes 110 and 121 of the preamble, and made various minor, non-substantive, editorial revisions to the text of the amended regulations. The following revisions have been made to conform to *Federal Register* style requirements.

Footnote 110 of the preamble to the final rule is hereby revised to read:

As revised, the first sentence of 12.4(b) clarifies that the definition of *Condition affecting the safety of a project or project works* includes any condition, event, or action at the project which might compromise the ability of any project work to function safely for its intended purposes, including other beneficial public uses such as recreation.

Footnote 121 of the preamble to the final rule is hereby revised to read:

The existing text, which this final rule relocates to § 12.52(a), requires licensees to install, operate, and maintain safety devices to warn the public of fluctuations in flow from the project.

The regulatory text included with the Commission's Order No. 880 as issued is hereby revised by this Errata Notice to reflect the minor editorial changes to the regulatory text as published in the *Federal Register*. The revised regulatory text is attached to this Errata Notice, in a clean version and with the changes marked.

¹ Safety of Water Power Projects and Project Works, 177 FERC ¶ 61,204 (2021) (Order No. 880).

² Safety of Water Power Projects and Project Works, 87 Fed. Reg. 1490 (Jan. 11, 2022).

Debbie-Anne A. Reese, Deputy Secretary.

<u>Attachment</u>

Revised regulatory text as published in the Federal Register (Clean Version)

In consideration of the foregoing, the Federal Energy Regulatory Commission amends part 12, chapter I, title 18, Code of Federal Regulations, as follows:

PART 12 – SAFETY OF WATER POWER PROJECTS AND PROJECT WORKS

1. The authority citation for part 12 is revised to read as follows:

Authority: 16 U.S.C. 791a-825r; 42 U.S.C. 7101-7352.

Subpart A—General Provisions

2. Amend § 12.3 by:

a. Revising paragraphs (b)(3), (b)(4) introductory text, and (b)(4)(ii), (v), and (xi);

b. Redesignating paragraph (b)(4)(xiii) as (b)(4)(xix);

c. Adding a new paragraph (b)(4)(xiii);

d. Redesignating paragraph (b)(11) as (b)(14);

e. Adding new paragraph (b)(11), (12) and (13).

The revisions and additions read as follows:

§ 12.3 Definitions.

* * * * *

(b) * * *

(3) Authorized Commission representative means the Director of the Office of Energy Projects, the Director of the Division of Dam Safety and Inspections, the Regional Engineer, or any other member of the Commission staff whom the Commission may specifically designate. (4) *Condition affecting the safety of a project or project works* means any condition, event, or action at the project which might compromise the safety, stability, or integrity of any project work or the ability of any project work to function safely for its intended purposes, including navigation, water power development, or other beneficial public uses, including recreation; or which might otherwise adversely affect life, health, or property. Conditions affecting the safety of a project or project works include, but are not limited to:

* * * * *

(ii) Failure of, misoperation of, or failure to operate when attempted any facility that controls the release or storage of impounded water, such as a gate or a valve;

* * * * *

(v) Internal erosion, piping, slides, or settlements of materials in any dam, foundation, abutment, dike, or embankment;

* * * * *

(xi) Security incidents (physical and/or cyber);

* * * * *

(xiii) Overtopping of any dam, abutment, or water conveyance;

* * * * *

(11) *Water conveyance* means any canal, penstock, tunnel, flowline, flume, siphon, or other project work, constructed or natural, which facilitates the movement of water for the generation of hydropower, environmental benefit, or other purpose required by the project license.

(12) *Owner's Dam Safety Program* means the written document that formalizes a licensee's dam safety program, including, but not limited to, the licensee's dam safety policies; objectives; expectations; responsibilities; training program; communication, coordination, and reporting; record keeping; succession planning; continuous improvement; and audits and assessments.

(13) *Hazard potential* for any dam or water conveyance is a classification based on the potential consequences in the event of failure or misoperation of the dam or water conveyance, and is subdivided into categories (e.g., Low, Significant, High).

(i) *High hazard potential* generally indicates that failure or misoperation will probably cause loss of human life.

(ii) *Significant hazard potential* generally indicates that failure or misoperation will probably not cause loss of human life but may have some amount of economic, environmental, or other consequences.

(iii) *Low hazard potential* generally indicates that failure or misoperation will probably not cause loss of human life but may have some amount of economic, environmental, or other consequences, typically limited to project facilities.

* * * * *

3. Amend § 12.4 by:

Docket No. RM20-9-000

a. Revising paragraphs (b)(1)(i), (b)(2)(ii)(B), and (b)(2)(iii)(A) and (B);

b. Adding paragraphs (b)(2)(iii)(C) and (D);

c. Revising paragraphs (c)(1), (c)(2) introductory text, and (c)(3); and

d. Adding paragraph (d).

The revisions and addition read as follows:

§ 12.4 Staff administrative responsibility and supervisory authority.

* * * * *

(b) * * *

(1) * * *

(i) Achieving or protecting the safety, stability, security, and integrity of the project works or the ability of any project work to function safely for its intended purposes, including navigation, water power development, or other beneficial public uses; or

- (ii) * * * (2) * * *
- (ii) * * *

(B) Any condition affecting the safety of a project or project works or any death, serious injuries, or rescues that occur at, or might be attributable to, the water power project;

(iii) * * *

(A) Any emergency action plan filed under subpart C of this part;

(B) Any Owner's Dam Safety Program filed under subpart F of this part;

(C) Any plan of corrective measures, including related schedules, submitted after the report of an independent consultant pursuant to §12.36 or §12.38 or any other inspection report; or

(D) Any public safety plan filed under § 12.52(b).

* * * * *

(C) * * *

(1) Any order or directive issued under this part by a Regional Engineer or other authorized Commission representative may be appealed to the Commission under § 385.207 of this chapter.

(2) Any order or directive issued under this part by a Regional Engineer or other authorized Commission representative is immediately effective and remains in effect until:

* * * * *

(3) An appeal or motion for rescission, amendment, or stay of any order or directive issued under this part must contain a full explanation of why granting the appeal or the request for rescission or amendment of the order or directive, or for stay for the period requested, will not endanger life, health, or property.

(d) *Failure to comply*. If a licensee fails to comply with any order or directive issued under this part by the Commission, a Regional Engineer, or other authorized Commission representative, the licensee may be subject to sanctions, including, but not limited to, civil penalties, orders to cease generation, or license revocation.

Subpart B—Reports and Records

4. Amend § 12.10 by revising paragraph (a)(1), the first sentence of paragraph (a)(2), and paragraph (b) to read as follows:

§ 12.10 Reporting safety-related incidents.

(1) * * * *Initial reports*. An applicant or licensee must report by email or telephone to the Regional Engineer any condition affecting the safety of a project or projects works, as defined in §12.3(b)(4). The initial report must be made as soon as practicable after that condition is discovered, preferably within 72 hours, without unduly interfering with any necessary or appropriate emergency repair, alarm, or other emergency action procedure.

(2) * * Following the initial report required in paragraph (a)(1), the applicant or licensee must submit to the Regional Engineer a written report on the condition affecting the safety of the project or project works verified in accordance with §12.13. * * *

* * * * *

(b) *Deaths, serious injuries, or rescues.* (1) *Initial reports.* An applicant or licensee must report to the Regional Engineer any drowning or other incident resulting in death, serious injury, or rescue that occurs at the project works or involves project operation. The initial report must be made promptly after the incident is discovered, may be provided via email or telephone, and must include a description of the cause and location of the incident.

(2) *Written reports*. Following the initial report required in paragraph (b)(1), the applicant or licensee must submit to the Regional Engineer a written report.

(i) For any death, serious injury, or rescue that is considered or alleged to be project-related, or occurs at the project works, the applicant or licensee must submit to the Regional Engineer a written report that describes any remedial actions taken or proposed to avoid or reduce the chance of similar occurrences in the future. The written report must be verified in accordance with §12.13.

(ii) For any death that is not project-related, the applicant or licensee may report the death by providing a copy of an article from print or electronic media or a report from a law enforcement agency, if available.

(iii) Serious injuries and rescues that are not project-related do not require a written report.

(3) For the purposes of this paragraph (b), *project-related* includes any deaths, serious injuries, or rescues that:

(i) Involve a project dam, spillway, intake, outlet works, tailrace, power canal, powerhouse, powerline, other water conveyance, or other appurtenances;

(ii) Involve changes in water levels or flows caused by generating units, project gates, or other flow regulating equipment;

(iii) Involve a licensee employee, contractor, or other person performing work at a licensed project facility and are related in whole or in part to the work being performed; or

(iv) Are otherwise attributable to project works and/or project operations.

(4) For the purposes of this paragraph (b), *serious injury* includes any injury that results in treatment at a medical facility or a response by licensee staff or another trained professional.

5. Amend § 12.12 by revising paragraphs (a)(1)(ii) and (b)(3) and adding paragraph (d) to read as follows:

§ 12.12 Maintenance of records.

(1) * * *

(ii) Instrumentation observations and data collected during construction, operation, or maintenance of the project, including continuously maintained tabular records and graphs illustrating the data collected pursuant to §12.51; and

* * * * *

(b) * * *

(3) In accordance with the provisions of part 125 of this chapter, the applicant or licensee may select its own storage media to maintain original records or record copies at the project site, provided that appropriate equipment is available to view the records.

* * * * *

(d) *Provision of records*. If the project is subject to subpart D of this part, or if requested by the Regional Engineer, the applicant or licensee must provide to the Regional Engineer physical and electronic copies of the documents listed in paragraph (a)
(1) of this section, except as provided in paragraph (a)(2) of this section.

Subpart C—Emergency Action Plans

§ 12.20 [Amended]

6. Amend § 12.20 in paragraph (a) by removing the words "three copies of".

§ 12.22 [Amended]

7. Amend § 12.22 as follows:

a. In paragraph (a)(1) introductory text, remove the phrase "conform with the guidelines

established, and from time to time revised, by the Director of the Office of Energy

Projects (available from the division of Inspections or the Regional Engineer) to"; and

b. In paragraph (a)(2) introductory text, remove "conforming with the guidelines

established by the Director of the Office of Energy Projects".

§ 12.24 [Amended]

- 8. Amend § 12.24 in paragraph (c)(3) by removing the words "three copies of".
- 9. Revise subpart D to read as follows:

Subpart D—Review, Inspection, and Assessment by Independent Consultant

Sec.

- 12.30 Applicability.
- 12.31 Definitions.
- 12.32 General inspection requirement.
- 12.33 Exemption.
- 12.34 Approval of independent consultant team.
- 12.35 Periodic inspection.
- 12.36 Report on a period inspection.
- 12.37 Comprehensive assessment.
- 12.38 Report on a comprehensive assessment.
- 12.39 Evaluation of spillway adequacy.
- 12.40 Time for inspections and reports.
- 12.41 Corrective measures.
- 12.42 Preliminary reports.

Subpart D—Review, Inspection, and Assessment by Independent Consultant

§12.30 Applicability.

This subpart D applies to any licensed project development that:

(a) Has a dam

(1) That is more than 32.8 feet (10 meters) in height above streambed, as defined in

§12.31(c); or

- (2) With an impoundment gross storage capacity of more than 2,000 acre-feet
- (2.5 million cubic meters), as defined in §12.31(d);
- (b) Has a project work (dam or water conveyance) or any portion thereof that has a high hazard potential, as defined in §12.3(b)(13)(i); or
- (c) Is determined by the Regional Engineer or other authorized Commission
- representative to require inspection by an independent consultant under this subpart D.

§12.31 Definitions.

For purposes of this subpart D:

- (a) *Independent consultant* means any person who:
- (1) Is a licensed professional engineer;
- (2) Has at least 10 years of experience and expertise in dam design and construction and in the investigation of the safety of existing dams;
- (3) Is not an employee of the licensee or its affiliates;

(4) Has not been an employee of the licensee or its affiliates within two years prior to performing engineering and/or scientific services for an inspection or assessment under this subpart D; and

(5) Has not been an agent acting on behalf of the licensee or its affiliates, prior to performing engineering and/or scientific services for an inspection or assessment under this subpart D.

(b) An *independent consultant team* means a group of one or more people that:

(1) Includes at least one independent consultant, as defined in paragraph (a) of this section;

(2) Includes additional qualified engineering and scientific professionals as supporting team members, as needed, who meet the requirements of paragraphs (a)(3) through (5) of this section;

(3) Has demonstrable experience and expertise in dam design, construction, and the evaluation and assessment of the safety of existing dams and their appurtenances, commensurate with the scale, complexity, and relevant technical disciplines of the project and type of review, inspection, and assessment being performed (periodic inspection or comprehensive assessment, as defined in this section).

(c) *Height above streambed* means:

(1) For a dam with a spillway, the vertical distance from the lowest elevation of the natural streambed at the downstream toe of the dam to the maximum water storage elevation possible without any discharge from the spillway. The maximum water storage elevation is:

(i) For gated spillways, the elevation of the tops of the gates; and

(ii) For ungated spillways, the elevation of the spillway crest or the top of any flashboards, whichever is higher.

(2) For a dam without a spillway, the vertical distance from the lowest elevation of the natural streambed at the downstream tow of the dam to the lowest point on the crest of the dam.

(d) Gross storage capacity means the maximum possible volume of water impounded by a dam with zero spill, that is, without the discharge of water over the dam or a spillway.

(e) Periodic inspection means an inspection that meets the requirements of §12.35 and is performed by an independent consultant team.

(f) Comprehensive assessment means a project review, inspection, and assessment that meets the requirements of §12.37 and is performed by an independent consultant team. (g) Previous Part 12D Inspection means the most recent inspection performed in accordance with the provisions of this subpart D (a periodic inspection, comprehensive assessment, or an inspection performed in accordance with the rules established by Order 122).

(h) Previous Part 12D Report means the report on the Previous Part 12D Inspection.

§12.32 General inspection requirement.

The project works of each development to which this subpart applies, excluding transmission and transformation facilities, must be inspected on a periodic basis by an independent consultant team to identify any actual or potential deficiencies that might endanger life, health, or property, including deficiencies that may be in the condition of those project works or in the quality or adequacy of project maintenance, safety, methods of operation, analyses, and other conditions. A report must be prepared by the independent consultant team, by or under the direction of at least one independent consultant, who may be a member of a consulting firm, to document the findings and evaluations made during their inspection. The inspection must be performed by the independent consultant team, and the report must be filed by the licensee, in accordance with the procedures in this subpart D. The licensee must ensure that the independent consultant team's report meets all of the requirements set forth in this subpart D.

§12.33 Exemption.

(a) Upon written request from the licensee, the Director of the Division of Dam Safety and Inspections may grant an exemption from the requirements of this subpart D in circumstances that clearly establish good cause for exemption.

(b) Good cause for exemption may include the finding that the development in question has no dam, canal, or other water conveyance except those that meet the criteria for low hazard potential as defined in §12.3(b)(13)(iii).

(c) The Director of the Division of Dam Safety and Inspections, for good cause shown, may rescind any exemption from this subpart D granted by the Director, and may require that a comprehensive assessment be completed prior to considering a subsequent request for exemption from the licensee.

§12.34 Approval of independent consultant team.

(a) The licensee must obtain written approval of the independent consultant team, and the facilitator(s) for a potential failure mode analysis or risk analysis, from the Director of

the Division of Dam Safety and Inspections, prior to the performance of a periodic inspection or comprehensive assessment under this subpart D.

(b) At least 180 days prior to performing a periodic inspection or comprehensive assessment under this subpart D, the licensee must submit to the Director of the Division of Dam Safety and Inspections, with a copy to the Regional Engineer, a detailed part 12D inspection plan that includes an independent consultant team proposal that describes the technical disciplines and level of expertise required to perform the inspection. (1) If the independent consultant team comprises one person, the detailed independent consultant team proposal must:

(i) Describe the experience of the independent consultant; and

(ii) Show that the independent consultant meets the requirements as defined in §§12.31(a) and 12.31(b)(3).

(2) If the independent consultant team comprises more than one person, the detailed independent consultant team proposal must:

(i) Designate one or more persons to serve as independent consultant(s);

(ii) Describe the experience of each member of the independent consultant team;

(iii) Show that each independent consultant meets the requirements as defined in

§12.31(a);

(iv) Show that each member of the independent consultant team who is not designated as an independent consultant meets the requirements as defined in §12.31(a)(3) through (5); and

(v) Show that the independent consultant team meets the requirements as defined in §12.31(b)(3).

(3) If any member of the independent consultant team has performed or substantially contributed to any previous investigation, analysis, or other work product that is required to be reviewed and evaluated by the independent consultant team as part of the inspection being performed, the independent consultant team proposal must include a clear delineation of roles and responsibilities that ensures no team member will be responsible for reviewing and evaluating their own previous work.

17

(4) If required information about any supporting team member(s) is not available at the time the independent consultant team proposal is submitted to the Director of the Division of Dam Safety and Inspections, the independent consultant team proposal must state that the information will be provided in the preliminary report required by §12.42.
(5) The 180-day period in paragraph (b) is measured from the scheduled date of the physical field inspection, potential failure mode analysis, or risk analysis, whichever occurs first.

(c) Regardless of experience and qualifications, any independent consultant may be disapproved by the Director of the Division of Dam Safety and Inspections for good cause, such as having had one or more reports on an inspection under this subpart D rejected by the Commission within the preceding five years.

(d) The Director of the Division of Dam Safety and Inspections may, for good cause shown, grant a waiver of the 10-year requirement in §12.31(a)(2). Any petition for waiver under this paragraph must be filed in accordance with §385.207 of this chapter.

§12.35 Periodic inspection.

A periodic inspection must include:

Docket No. RM20-9-000

(a) *Review of prior reports*. The independent consultant team must review and consider all relevant reports on the safety of the development made by or written under the direction of Federal or state agencies, submitted under Commission regulations, or made by other consultants. The licensee must provide to the independent consultant team all information and reports necessary to fulfill the requirements of this section. The independent consultant team must perform sufficient review to have, at the time of the periodic inspection, a full understanding of the design, construction, performance, condition, upstream and downstream hazard, monitoring, operation, and potential failure modes of the project works.

(b) *Physical field inspection*. The independent consultant team must perform a physical field inspection of accessible project works, including galleries, adits, vaults, conduits, earthen and concrete-lined spillway chutes, the exterior of water conveyances, and other non-submerged project works that may require specialized access to facilitate inspection. The inspection shall include review and assessment of all relevant data concerning:

- (1) Settlement;
- (2) Movement;
- (3) Erosion;
- (4) Seepage;
- (5) Leakage;
- (6) Cracking;
- (7) Deterioration;
- (8) Hydraulics;

(9) Hydrology;

(10) Seismicity;

(11)Internal stress and hydrostatic pressures in project structures and their foundations and abutments;

(12) The condition and performance of foundation drains, dam body drains, relief wells, and other pressure-relief systems;

(13) The condition and performance of any post-tensioned anchors installed, and other major modifications completed, to improve the stability of project works;

(14) The stability of critical slopes adjacent to a reservoir or project works; and

(15) Regional and site geological conditions.

(c) *Review of surveillance and monitoring plan and data*. The independent consultant team must:

(1) Review the surveillance procedures, instrumentation layout, installation details, monitoring frequency, performance history, data history and trends, and relevance to potential failure modes; and

(2) Review the frequency and scope of other surveillance activities.

(d) *Review of dam and public safety programs*. The independent consultant team must review the programs specified in this paragraph.

(1) *Hazard potential*. The independent consultant team must review the potential inundation area and document any significant changes in the magnitude and location of the population at risk since the previous inspection under this subpart D.

(2) *Emergency Action Plan*. If the project development is subject to subpart C of this part, the independent consultant team must review the emergency action plan, including the emergency action plan document itself, the licensee's training program, and any related time-sensitivity assessment(s).

(3) *Public Safety Program*. The independent consultant team must review the public access restrictions and public safety warning signs and devices near the project works pursuant to § 12.52.

(4) *Owner's Dam Safety Program*. If the project is subject to subpart F of this part, the independent consultant team must review the implementation of the licensee's Owner's Dam Safety Program with respect to the project development being inspected under this subpart D.

§12.36 Report on a periodic inspection.

(a) *Scope*. The report must include documentation of all the items listed in §12.35.

(b) Specific evaluation. The report must include specific evaluation of:

(1) The history of performance of the project works through visual observations, analysis of data from monitoring instruments, and previous inspections;

(2) The quality and adequacy of maintenance, surveillance, methods of project operations, and risk reduction measures for the protection of public safety and continued project operation;

(3) Potential failure modes, including:

(i) Each identified potential failure mode associated with the project works and whether any potential failure mode is active or developing; and (ii) Whether any inspection observations or other conditions indicate that an unidentified potential failure mode is active, developing, or is of sufficient concern to warrant development through a supplemental potential failure mode analysis;

(4) Whether any observed conditions warrant reconsideration of the current hazard potential classification; and

(5) The adequacy of the project's:

(i) Emergency action plan;

(ii) Public safety program; and

(iii) Implementation of the Owner's Dam Safety Program with respect to the project development being inspected under this subpart D.

(c) *Changes since the previous inspection*. The report must include a status update and evaluation of any changes since the Previous Part 12D Inspection concerning:

(1) *Hydrology*. Identify any events that may affect the conclusions of the hydrologic or hydraulic analyses of record and evaluate the effect on the safety and stability of project works.

(2) *Seismicity*. Identify any seismic events that may affect the conclusions of the seismicity analyses of record and evaluate the effect on the safety and stability of project works.

(3) *Modifications to project works*. Identify any modifications made to project works and evaluate the performance thereof with respect to the design intent.

(4) *Methods of operation*. Describe any changes to standard operating procedures, equipment available for project operation, and evaluate the effect on the safety and stability of project works.

(5) *Results of special inspections*. Summarize the findings of any special inspections (dive inspection, rope-access gate inspection, toe drain inspection, etc.), if any.

(6) *Previous recommendations*. List and document the status of recommendations made by the independent consultant(s) in the Previous Part 12D Report, and any earlier recommendations that remained incomplete at the time of the Previous Part 12D Report.

(7) *Outstanding studies and studies completed since the previous inspection*. List and document the status of any studies completed since the Previous Part 12D Inspection and those that remain outstanding at the time of the periodic inspection.

(d) *Recommendations*. Based on the independent consultant team's field observations, evaluations of the project works, and the maintenance, surveillance, and methods of operation of the development, the report must contain recommendations by the independent consultant(s) regarding:

 Any corrective measures, described in §12.41, necessary for the structures, maintenance or surveillance procedures, or methods of operation of the project works;

(2) A reasonable time to carry out each corrective measure; and

(3) Any new or additional monitoring instruments, periodic observations, special inspections, or other methods of monitoring project works or conditions that may be required.

(e) *Dissenting views*. If the inspection and report were conducted and prepared by more than one independent consultant, the report must clearly identify and describe any dissenting views concerning the evaluations or recommendations of the report that might be held by any individual consultant.

(f) *List of participants*. The report must identify all professional personnel who have participated in the inspection of the project or in preparation of the report and the independent consultant(s) who directed those activities.

(g) *Statement of independence*. Each independent consultant responsible for the report must declare that all conclusions and recommendations in the report are made independently of the licensee, its employees, and its representatives.

(h) *Signature*. The report must be signed and sealed, with a professional engineer's seal, by each independent consultant responsible for the report.

§12.37 Comprehensive assessment.

A comprehensive assessment must include:

(a) *Review of prior reports and analyses of record*. The independent consultant team must review and consider all relevant reports on the safety of the development made by or written under the direction of Federal or state agencies, submitted under Commission regulations, or made by other consultants. The licensee must provide to the independent consultant team all information, reports, and analyses of record necessary to fulfill the requirements of this section.

(1) In addition to the requirements of §12.35(a), the independent consultant team must have a full understanding of the risk associated with the project works.

Docket No. RM20-9-000

(2) The independent consultant team shall perform a detailed review of the as-built drawings; monitoring data; and the methods, assumptions, calculations, results, and conclusions of the analyses of record pertaining to:

(i) Geology and seismicity;

(ii) Hydrology and hydraulics;

(iii) Stability and structural integrity of project works; and

(iv) Any other analyses relevant to the safety, stability, and operation of project works.

(b) *Physical field inspection*. The independent consultant team must perform a physical field inspection that complies with §12.35(b).

(c) *Review of surveillance and monitoring plan and data*. The independent consultant team must perform a review of surveillance and monitoring plan and data that complies with §12.35(c).

(d) *Review of dam and public safety programs*. The independent consultant team must perform a review of dam and public safety programs that complies with §12.35(d).

(e) *Supporting Technical Information Document*. The comprehensive assessment shall include a review of the Supporting Technical Information Document.

(f)*Potential failure mode analysis*. The comprehensive assessment shall include a potential failure mode analysis.

(g) *Risk analysis*. The comprehensive assessment shall include a risk analysis. The Regional Engineer may, for good cause shown, grant a waiver of the requirement to complete a risk analysis. Any petition for waiver under this paragraph must be filed in accordance with § 385.207 of this chapter.

§12.38 Report on a comprehensive assessment.

(a) *Scope*. The comprehensive assessment report must include documentation of all the items listed in §12.37.

(b) *Specific evaluation*. In addition to the items listed in §12.36(b)(1) through §12.36(b)(5), the comprehensive assessment report must evaluate:

(1) The adequacy of spillways, including the effects of overtopping of nonoverflow structures, as described in §12.39;

(2) The structural adequacy and stability of structures under all credible loading conditions;

(3) The potential for internal erosion and/or piping of embankments, foundations, and abutments;

(4) The design and construction practices used during original construction and subsequent modifications, in comparison with the industry best practices in use at the time of the inspection under this subpart D;

(5) The adequacy of the Supporting Technical Information Document and the attached electronic records; and

(6) The adequacy and findings of the potential failure mode analysis and risk analysis report(s).

(c) *Analyses of record*. The comprehensive assessment report must include the independent consultant team's evaluation of the assumptions, methods, calculations, results, and conclusions of the items listed in §12.37(a)(2)(i) through (iv). The evaluation must:

(1) Address the accuracy, relevance, and consistency with the current state of the practice of dam engineering;

(2) Be accompanied by sufficient documentation of the independent consultant team's rationale, including, as needed, new calculations by the independent consultant team to verify that the assumptions, methods, calculations, results, and conclusions in the analyses of record are correct; and

(3) If the independent consultant team is unable to review the analyses of record for any of the items listed in §12.37(a)(2)(i) through (iv); or if the independent consultant team disagrees with the assumptions, methods, calculations, results, or conclusions therein; the independent consultant(s) must recommend that the licensee complete new analyses to address the identified concerns.

(d) *Changes since the previous inspection*. The requirements of this section are the same as described in §12.36(c).

(e) *Recommendations*. The requirements of this section are the same as described in §12.36(d).

(f) *Dissenting views*. The requirements of this section are the same as described in §12.36(e).

(g) *List of participants*. The requirements of this section are the same as described in §12.36(f).

(h) *Statement of independence*. The requirements of this section are the same as described in §12.36(g).

(i) *Signature*. The requirements of this section are the same as described in §12.36(h).

§12.39 Evaluation of spillway adequacy.

The adequacy of any spillway must be evaluated, as part of a comprehensive assessment or as otherwise requested by the Regional Engineer, by considering hazard potential which would result from failure of the project works during normal and flood flows. (a) If failure would present a hazard to human life or cause significant property damage, the independent consultant team must evaluate the following for floods up to and including the probable maximum flood:

(1) The ability of project works to withstand the loading or overtopping which may occur during floods;

(2) The capacity of spillways to prevent the reservoir from rising to an elevation that would endanger the project works; and

(3) The potential for misoperation of; failure to operate; blockage of; or debilitating damage to a spillway and its appurtenances (including but not limited to structural, mechanical, and electrical components of gates, valves, chutes, and training walls); and the effect thereof on the maximum reservoir level and potential for surcharged loading or overtopping to occur during floods.

(b) If failure would not present a hazard to human life or cause significant property damage, spillway adequacy may be evaluated by means of a design flood of lesser magnitude than the probable maximum flood provided that the most recent comprehensive assessment report required by §12.38 provides a detailed explanation of and rationale for the finding that structural failure would not present a hazard to human life or cause significant property damage.

§12.40 Time for inspections and reports.

(a) *Projects previously inspected by independent consultant*. For any project that was inspected under this subpart D prior to April 11, 2022, under the Commission's rules in effect on January 1, 2022:

(1) A periodic inspection or comprehensive assessment must be completed, and the report on it filed, within five years of the due date of the Previous Part 12D Report.

(2) For any report due to be filed under this subpart D after October 11, 2023, the Regional Engineer may require that it be a report on a comprehensive assessment or a report on a periodic inspection.

(3) The first comprehensive assessment under this subpart must be completed, and the report on it filed, by December 31, 2038.

(b) *Projects not previously inspected by independent consultant*. For any project that was not inspected under this subpart D prior to April 11, 2022, under the Commission's rules in effect on January 1, 2022:

(1) For any development that meets the criteria specified in §12.30(a)(1) or §12.30(a)(2), and was constructed before the date of issuance of the order licensing that development, or amending a license to include that development, the first comprehensive assessment under this subpart D must be completed, and the report on it filed, not later than two years after the date of issuance of the order licensing that development or amending the license to include that development.

(2) For any development that was constructed after the date of issuance of the order licensing that development, or amending a license to include that development, the first comprehensive assessment under this subpart D must be completed, and the report on it filed, not later than five years after the date of issuance of the order licensing that development or amending the license to include that development.

(3) For any development not set forth in either paragraph (b)(1) or (b)(2) of this section, the first comprehensive assessment under this subpart D must be completed, and the report on it filed, by a date specified by the Regional Engineer. The filing date must not be more than two years after the date of notification that a comprehensive assessment and report under this subpart D are required.

(c) *Subsequent inspections and reports*. For subsequent reports filed under this subpartD:

 A comprehensive assessment must be completed, and the report on it filed, within 10 years of the date the previous comprehensive assessment report was due to be filed.
 A periodic inspection must be completed, and the report on it filed, within five years of the date the previous comprehensive assessment report was due to be filed.

(d) *Extension of time*. For good cause shown, the Regional Engineer may extend the time for filing the report on a comprehensive assessment or periodic inspection under this subpart D.

(e) *Type of Report*. For good cause, the Regional Engineer may require that any report due to be filed under this subpart D be a report on a comprehensive assessment or a report on a periodic inspection, notwithstanding the type of review (periodic inspection or comprehensive assessment) scheduled to be performed under paragraphs (c)(1) and (c)(2) of this section.

§12.41 Corrective measures.

(a) *Corrective measures*. For items identified during a periodic inspection or comprehensive assessment as requiring corrective action, the following conditions apply:
(1) *Corrective plan and schedule*. (i) Not later than 60 days after a report on a periodic inspection or comprehensive assessment is filed with the Regional Engineer, the licensee must submit to the Regional Engineer a plan and schedule for addressing the recommendations of the independent consultant(s) and for investigating, designing, and carrying out any corrective measures that the licensee proposes to implement.

(ii) The plan and schedule may include any proposal, including taking no action, that the licensee considers a preferable alternative to any corrective measure recommended in the report of the independent consultant(s). Any proposed alternative must be accompanied by the licensee's complete justification and detailed analysis and evaluation in support of that alternative.

(2) *Carrying out the plan*. The licensee must complete all corrective measures in accordance with the plan and schedule submitted to, and approved or modified by, the Regional Engineer, and on an annual basis must submit a status report on the corrective measures until all have been completed.

(3) *Extension of time*. For good cause shown, the Regional Engineer may extend the time for filing the plan and schedule required by this section.

(b) *Emergency corrective measures*. The licensee must provide that if, in the course of a periodic inspection or comprehensive assessment conducted under this subpart D, an independent consultant discovers any condition for which emergency corrective measures are advisable, such as a condition affecting the safety of a project or project works as defined in §12.3(b)(4) of this part, the independent consultant must immediately notify the licensee and the licensee must report that condition to the Regional Engineer pursuant to §12.10(a) of this part. Emergency corrective measures must be included in the corrective plan and schedule required by paragraph (a)(1) of this section, and are also subject to paragraphs (a)(2) and (a)(3) of this section.

§12.42 Preliminary reports.

At least 30 days prior to the performance of a periodic inspection or comprehensive assessment, a preliminary report prepared by the independent consultant team must be filed by the licensee with the Regional Engineer to document the initial findings, understanding, and preparation of the independent consultant team.

(a) For any periodic inspection, the 30-day period is measured from the scheduled date of the physical field inspection.

(b) For any comprehensive assessment, the 30-day period is measured from the scheduled date of the physical field inspection, potential failure mode analysis, or risk analysis, whichever occurs first.

(c) If the Regional Engineer determines that the preliminary report does not clearly demonstrate that the independent consultant team is adequately prepared for the inspection, the Regional Engineer may require the inspection to be postponed. Any such postponement shall not constitute good cause for an extension of time under §12.40(d).
(d) If any required supporting team member information was not provided with the independent consultant team proposal required by §12.34(b), it must be provided with the preliminary report.

Subpart E—Other Responsibilities of Applicant or Licensee

§§ 12.40 through 12.44 [Redesignated as §§ 12.50 through 12.54]

10. Redesignate §§ 12.40 through 12.44 as §§ 12.50 through 12.54, respectively.

§§ 12.55 through 12.59 [Reserved]

11. Add reserved §§ 12.55 through 12.59.

12. Amend newly designated § 12.50 in paragraph (a) by removing "§ 12.39" and adding in its place "§ 12.41".

13. Revise newly redesignated § 12.52 to read as follows:

§ 12.52 Warning and safety devices.

(a) To the satisfaction of, and within a time specified by the Regional Engineer, an applicant or licensee must install, operate, and maintain any signs, lights, sirens, barriers, or other safety devices that may reasonably be necessary or desirable to warn the public of fluctuations in flow from the project or otherwise to protect the public in the use of project lands and waters.

(b) The Regional Engineer may require the applicant or licensee to prepare,

periodically update, and file with the Commission a public safety plan that formalizes the

installation, operation, and maintenance of all necessary public safety devices.

§ 12.54 [Amended]

14. Amend newly redesignated § 12.54 as follows:

a. In paragraph (b)(2), remove "the periodic" and add in its place "an" and add "gate"

directly following the second appearance of the word "spillway"; and

b. In paragraph (c)(2), remove "the periodic" and add in its place "an".

15. Add subpart F, consisting of §§ 12.60 through 12.65, to read as follows:

Subpart F—Owner's Dam Safety Program

Sec.

- 12.60 Applicability.
- 12.61 Definitions.
- 12.62 General requirements.
- 12.63 Contents of Owner's Dam Safety Program.
- 12.64 Annual review and update of Owner's Dam Safety Program.
- 12.65 Independent external audit and peer review.

§ 12.60 Applicability.

The licensee of any dam or other project work classified as having a high or significant

hazard potential, as defined in § 12.3(b)(13)(i) and (ii), is required to submit an Owner's

Dam Safety Program to the Regional Engineer.

§ 12.61 Definitions.

For purposes of this subpart F:

(a) *Chief Dam Safety Engineer* means the designated individual, who is a licensed professional engineer with experience in dam safety, who oversees the implementation of the Owner's Dam Safety Program and has primary responsibility for ensuring the safety of the licensee's dam(s) and other project works.

(b) *Chief Dam Safety Coordinator* means the designated individual, who is not required to be a licensed professional engineer, who oversees the implementation of the Owner's Dam Safety Program and has primary responsibility for ensuring the safety of the licensee's dam(s) and other project works.

§ 12.62 General requirements.

(a) The Owner's Dam Safety Program shall designate either a Chief Dam Safety Engineer or Chief Dam Safety Coordinator, as defined in §12.61. Any Owner's Dam Safety Program that includes one or more dams or other project works classified as having a high hazard potential, as defined in §12.3(b)(13)(i), shall designate a Chief Dam Safety Engineer.

(b) The Owner's Dam Safety Program must be signed by the Owner and, as applicable, the Chief Dam Safety Engineer or the Chief Dam Safety Coordinator.

(c) The Owner's Dam Safety Program must be reviewed and updated on a periodic basis as described in § 12.64 and, if applicable, must undergo an independent external audit or peer review as described in § 12.65.

(d) The Owner may delegate to others, such as consultants, the work of establishing and implementing the Owner's Dam Safety Program and the role of Chief Dam Safety Engineer or Chief Dam Safety Coordinator, as applicable.

(1) If the role of Chief Dam Safety Engineer or Chief Dam Safety Coordinator is delegated to an outside party who does not oversee the day-to-day implementation of the Owner's Dam Safety Program, the Owner must designate an individual responsible for overseeing the day-to-day implementation.

(2) Any delegation made in accordance with paragraph (d) of this section must be documented in the Owner's Dam Safety Program.

(3) The Owner retains ultimate responsibility for the safety of the dam(s) and other project works covered by the Owner's Dam Safety Program.

§ 12.63 Contents of Owner's Dam Safety Program.

The Owner's Dam Safety Program shall contain, at a minimum, the following sections:

- (a) Dam safety policy, objectives, and expectations;
- (b) Responsibilities for dam safety;
- (c) Dam safety training program;
- (d) Communication, coordination, reporting, and reports;
- (e) Record keeping and databases; and
- (f) Continuous improvement.
§ 12.64 Annual review and update of Owner's Dam Safety Program.

The Owner's Dam Safety Program, and the implementation thereof, shall be reviewed at least once annually by the licensee's dam safety staff and discussed with senior management of the Owner's organization. The licensee shall submit the results of the annual review, including findings, analysis, corrective measures, and/or revisions to the Owner's Dam Safety Program, to the Regional Engineer.

§ 12.65 Independent external audit and peer review.

(a) *Applicability*. For licensees of one or more dams or other project works classified as having a high hazard potential, as defined in §12.3(b)(13)(i), an independent external audit or peer review of the Owner's Dam Safety Program, and the implementation thereof, shall be performed at an interval not to exceed five years.

(b) *Qualifications*. A statement of qualifications for the proposed auditor(s) or peer review team that demonstrates independence from the licensee and its affiliates shall be submitted to the Regional Engineer for review, and written acceptance thereof must be obtained from the Regional Engineer prior to performing the audit or peer review.

(c) *Reporting*. (1) The auditor(s) or peer review team shall document their findings in a report.

(2) The report on the audit or peer review shall be reviewed by the Owner, Chief Dam Safety Engineer or Chief Dam Safety Coordinator, and management having responsibility in the area(s) audited or reviewed. Docket No. RM20-9-000

(3) The report on the audit or peer review shall be submitted to the Regional Engineer.

Revised regulatory text identifying revisions made by Office of the Federal Register (Marked Version)

In consideration of the foregoing, the Federal Energy Regulatory Commission amends part 12, chapter I, title 18, Code of Federal Regulations, as follows:

PART 12 – SAFETY OF WATER POWER PROJECTS AND PROJECT WORKS

1. The authority citation for part 12 is revised to read as follows:

Authority: 16 U.S.C. 791a-825r; 42 U.S.C. 7101-7352.

Subpart A—General Provisions

```
2. Amend § 12.3 by:
```

- a. Revising paragraphs (b)(3), (b)(4) introductory text, and (b)(4)(ii), (v), and (xi);
- b. Redesignating paragraph (b)(4)(xiii) as (b)(4)(xix);
- c. Adding a new paragraph (b)(4)(xiii);
- d. Redesignating paragraph (b)(11) as (b)(14);
- e. Adding new paragraph (b)(11); and

f. Adding paragraphs (b), (12) through and (13).

The revisions and additions read as follows:

§ 12.3 Definitions.

```
* * * * *
```

```
(b) * * *
```

(5) *Authorized Commission representative* means the Director of the Office of Energy Projects, the Director of the Division of Dam Safety and Inspections, the Regional

Engineer, or any other member of the Commission staff whom the Commission may specifically designate.

(6) *Condition affecting the safety of a project or project works* means any condition, event, or action at the project which might compromise the safety, stability, or integrity of any project work or the ability of any project work to function safely for its intended purposes, including navigation, water power development, or other beneficial public uses, including recreation; or which might otherwise adversely affect life, health, or property. Conditions affecting the safety of a project or project works include, but are not limited to:

* * * * *

(ii) Failure of, misoperation of, or failure to operate when attempted any facility that controls the release or storage of impounded water, such as a gate or a valve;

* * * * *

(v) Internal erosion, piping, slides, or settlements of materials in any dam, foundation, abutment, dike, or embankment;

* * * * *

(xi) Security incidents (physical and/or cyber);

* * * * *

(xiii) Overtopping of any dam, abutment, or water conveyance;

* * * * *

(11) *Water conveyance* means any canal, penstock, tunnel, flowline, flume, siphon, or other project work, constructed or natural, which facilitates the movement of water for the generation of hydropower, environmental benefit, or other purpose required by the project license.

(12) *Owner's Dam Safety Program* means the written document that formalizes a licensee's dam safety program, including, but not limited to, the licensee's dam safety policies; objectives; expectations; responsibilities; training program; communication, coordination, and reporting; record keeping; succession planning; continuous improvement; and audits and assessments.

(13) *Hazard potential* for any dam or water conveyance is a classification based on the potential consequences in the event of failure or misoperation of the dam or water conveyance, and is subdivided into categories (e.g., Low, Significant, High).

(i) *High hazard potential* generally indicates that failure or misoperation will probably cause loss of human life.

(ii) *Significant hazard potential* generally indicates that failure or misoperation will probably not cause loss of human life but may have some amount of economic, environmental, or other consequences.

(iii) *Low hazard potential* generally indicates that failure or misoperation will probably not cause loss of human life but may have some amount of economic, environmental, or other consequences, typically limited to project facilities.

* * * * *

- 3. Amend § 12.4 by:
- a. Revising paragraphs (b)(1)(i), (b)(2)(ii)(B), and (b)(2)(iii)(A) and (B);
- b. Adding paragraphs (b)(2)(iii)(C) and (D);
- c. Revising paragraphs (c)(1), (c)(2) introductory text, and (c)(3); and
- d. Adding paragraph (d).

The revisions and addition read as follows:

§ 12.4 Staff administrative responsibility and supervisory authority.

- * * * * * (b) * * *
 - (1) * * *

(i) Achieving or protecting the safety, stability, security, and integrity of the project works or the ability of any project work to function safely for its intended purposes, including navigation, water power development, or other beneficial public uses; or

- (ii) * * *
- (2) * * *
- (ii) * * *

(B) Any condition affecting the safety of a project or project works or any death, serious injuries, or rescues that occur at, or might be attributable to, the water power project;

(iii) * * *

(A) Any emergency action plan filed under subpart C of this part;

(B) Any Owner's Dam Safety Program filed under subpart F of this part;

(C) Any plan of corrective measures, including related schedules, submitted after the report of an independent consultant pursuant to §12.36 or §12.38 or any other inspection report; or

(D) Any public safety plan filed under § 12.52(b).

* * * * *

(C) * * *

(1) Any order or directive issued under this part by a Regional Engineer or other authorized Commission representative may be appealed to the Commission under § 385.207 of this chapter.

(2) Any order or directive issued under this part by a Regional Engineer or other authorized Commission representative is immediately effective and remains in effect until:

* * * * *

(3) An appeal or motion for rescission, amendment, or stay of any order or directive issued under this part must contain a full explanation of why granting the appeal or the request for rescission or amendment of the order or directive, or for stay for the period requested, will not endanger life, health, or property.

(d) *Failure to comply*. If a licensee fails to comply with any order or directive issued under this part by the Commission, a Regional Engineer, or other authorized Commission representative, the licensee may be subject to sanctions, including, but not limited to, civil penalties, orders to cease generation, or license revocation.

Subpart B—Reports and Records

4. Amend § 12.10 by revising paragraph (a)(1), the first sentence of paragraph (a)(2), and paragraph (b) to read as follows:

§ 12.10 Reporting safety-related incidents.

(a)-

(1) * * * *Initial reports*. An applicant or licensee must report by email or telephone to the Regional Engineer any condition affecting the safety of a project or projects works, as defined in §12.3(b)(4). The initial report must be made as soon as practicable after that condition is discovered, preferably within 72 hours, without unduly interfering with any necessary or appropriate emergency repair, alarm, or other emergency action procedure.

(2) * * Following the initial report required in paragraph (a)(1), the applicant or licensee must submit to the Regional Engineer a written report on the condition affecting the safety of the project or project works verified in accordance with §12.13. * * *

* * * * *

(b) *Deaths, serious injuries, or rescues.* (1) *Initial reports.* An applicant or licensee must report to the Regional Engineer any drowning or other incident resulting in death, serious injury, or rescue that occurs at the project works or involves project operation. The initial report must be made promptly after the incident is discovered, may be provided via email or telephone, and must include a description of the cause and location of the incident.

(2) *Written reports*. Following the initial report required in paragraph (b)(1), the applicant or licensee must submit to the Regional Engineer a written report.

(i) For any death, serious injury, or rescue that is considered or alleged to be project-related, or occurs at the project works, the applicant or licensee must submit to the Regional Engineer a written report that describes any remedial actions taken or proposed to avoid or reduce the chance of similar occurrences in the future. The written report must be verified in accordance with §12.13.

(ii) For any death that is not project-related, the applicant or licensee may report the death by providing a copy of an article from print or electronic media or a report from a law enforcement agency, if available.

(iii) Serious injuries and rescues that are not project-related do not require a written report.

(3) For the purposes of this paragraph (b), *project-related* includes any deaths, serious injuries, or rescues that:

(i) Involve a project dam, spillway, intake, outlet works, tailrace, power canal, powerhouse, powerline, other water conveyance, or other appurtenances;

(ii) Involve changes in water levels or flows caused by generating units, project gates, or other flow regulating equipment;

(iii) Involve a licensee employee, contractor, or other person performing work at a licensed project facility and are related in whole or in part to the work being performed; or

(iv) Are otherwise attributable to project works and/or project operations.

(4) For the purposes of this paragraph (b), *serious injury* includes any injury that results in treatment at a medical facility or a response by licensee staff or another trained professional.

5. Amend § 12.12 by revising paragraphs (a)(1)(ii) and (b)(3) and adding paragraph (d) to read as follows:

§ 12.12 Maintenance of records.

(1) * * *

(ii) Instrumentation observations and data collected during construction, operation, or maintenance of the project, including continuously maintained tabular records and graphs illustrating the data collected pursuant to §12.51; and

* * * * *

(b) * * *

(3) In accordance with the provisions of part 125 of this chapter, the applicant or licensee may select its own storage media to maintain original records or record copies at the project site, provided that appropriate equipment is available to view the records.

* * * * *

(d) *Provision of records*. If the project is subject to subpart D of this part, or if requested by the Regional Engineer, the applicant or licensee must provide to the Regional Engineer physical and electronic copies of the documents listed in paragraph (a)
(1) of this section, except as provided in paragraph (a)(2) of this section.

Subpart C—Emergency Action Plans

§ 12.20 [Amended]

6. Amend § 12.20 in paragraph (a) by removing the words "three copies of".

§ 12.22 [Amended]

7. Amend § 12.22 as follows:

a. In paragraph (a)(1) introductory text, remove the phrase "conform with the guidelines

established, and from time to time revised, by the Director of the Office of Energy

Projects (available from the division of Inspections or the Regional Engineer) to"; and

b. In paragraph (a)(2) introductory text, remove "conforming with the guidelines

established by the Director of the Office of Energy Projects".

§ 12.24 [Amended]

- 8. Amend § 12.24 in paragraph (c)(3) by removing the words "three copies of".
- 9. Revise subpart D to read as follows:

Subpart D—Review, Inspection, and Assessment by Independent Consultant

Sec.

- 12.30 Applicability.
- 12.31 Definitions.
- 12.32 General inspection requirement.
- 12.33 Exemption.
- 12.34 Approval of independent consultant team.
- 12.35 Periodic inspection.
- 12.36 Report on a period inspection.
- 12.37 Comprehensive assessment.
- 12.38 Report on a comprehensive assessment.
- 12.39 Evaluation of spillway adequacy.
- 12.40 Time for inspections and reports.
- 12.41 Corrective measures.
- 12.42 Preliminary reports.

Subpart D—Review, Inspection, and Assessment by Independent Consultant

§12.30 Applicability.

This subpart **D** applies to any licensed project development that:

(a) Has a dam

(1) That is more than 32.8 feet (10 meters) in height above streambed, as defined in

§12.31(c); or

- (2) With an impoundment gross storage capacity of more than 2,000 acre-feet
- (2.5 million cubic meters), as defined in §12.31(d);
- (b) Has a project work (dam or water conveyance) or any portion thereof that has a high hazard potential, as defined in §12.3(b)(13)(i); or
- (c) Is determined by the Regional Engineer or other authorized Commission
- representative to require inspection by an independent consultant under this subpart **D**.

§12.31 Definitions.

For purposes of this subpart **D**:

- (a) *Independent consultant* means any person who:
- (1) Is a licensed professional engineer;
- (2) Has at least 10 years of experience and expertise in dam design and construction and in the investigation of the safety of existing dams;
- (3) Is not an employee of the licensee or its affiliates;

(4) Has not been an employee of the licensee or its affiliates within two years prior to performing engineering and/or scientific services for an inspection or assessment under this subpart D; and

(5) Has not been an agent acting on behalf of the licensee or its affiliates, prior to performing engineering and/or scientific services for an inspection or assessment under this subpart D.

(b) An *independent consultant team* means a group of one or more people that:

(1) Includes at least one independent consultant, as defined in paragraph (a) of this section;

(2) Includes additional qualified engineering and scientific professionals as supporting team members, as needed, who meet the requirements of paragraphs (a)(3) through (5) of this section;

(3) Has demonstrable experience and expertise in dam design, construction, and the evaluation and assessment of the safety of existing dams and their appurtenances, commensurate with the scale, complexity, and relevant technical disciplines of the project and type of review, inspection, and assessment being performed (periodic inspection or comprehensive assessment, as defined in this section).

(c) *Height above streambed* means:

(1) For a dam with a spillway, the vertical distance from the lowest elevation of the natural streambed at the downstream toe of the dam to the maximum water storage elevation possible without any discharge from the spillway. The maximum water storage elevation is:

(i) For gated spillways, the elevation of the tops of the gates; and

(ii) For ungated spillways, the elevation of the spillway crest or the top of any flashboards, whichever is higher.

(2) For a dam without a spillway, the vertical distance from the lowest elevation of the natural streambed at the downstream tow of the dam to the lowest point on the crest of the dam.

(d) Gross storage capacity means the maximum possible volume of water impounded by a dam with zero spill, that is, without the discharge of water over the dam or a spillway.

(e) Periodic inspection means an inspection that meets the requirements of §12.35 and is performed by an independent consultant team.

(f) Comprehensive assessment means a project review, inspection, and assessment that meets the requirements of §12.37 and is performed by an independent consultant team.
(g) Previous Part 12D Inspection means the most recent inspection performed in accordance with the provisions of this subpart D (a periodic inspection, comprehensive assessment, or an inspection performed in accordance with the rules established by Order 122).

(h) Previous Part 12D Report means the report on the Previous Part 12D Inspection.

§12.32 General inspection requirement.

The project works of each development to which this subpart applies, excluding transmission and transformation facilities, must be inspected on a periodic basis by an independent consultant team to identify any actual or potential deficiencies that might endanger life, health, or property, including deficiencies that may be in the condition of those project works or in the quality or adequacy of project maintenance, safety, methods of operation, analyses, and other conditions. A report must be prepared by the independent consultant team, by or under the direction of at least one independent consultant, who may be a member of a consulting firm, to document the findings and evaluations made during their inspection. The inspection must be performed by the independent consultant team, and the report must be filed by the licensee, in accordance with the procedures in this subpart D. The licensee must ensure that the independent consultant team's report meets all of the requirements set forth in this subpart D.

§12.33 Exemption.

(a) Upon written request from the licensee, the Director of the Division of Dam Safety and Inspections may grant an exemption from the requirements of this subpart D in circumstances that clearly establish good cause for exemption.

(b) Good cause for exemption may include the finding that the development in question has no dam, canal, or other water conveyance except those that meet the criteria for low hazard potential as defined in §12.3(b)(13)(iii).

(c) The Director of the Division of Dam Safety and Inspections, for good cause shown, may rescind any exemption from this subpart D granted by the Director, and may require that a comprehensive assessment be completed prior to considering a subsequent request for exemption from the licensee.

§12.34 Approval of independent consultant team.

(a) The licensee must obtain written approval of the independent consultant team, and the facilitator(s) for a potential failure mode analysis or risk analysis, from the Director of

the Division of Dam Safety and Inspections, prior to the performance of a periodic inspection or comprehensive assessment under this subpart D.

(b) At least 180 days prior to performing a periodic inspection or comprehensive assessment under this subpart **D**, the licensee must submit to the Director of the Division of Dam Safety and Inspections, with a copy to the Regional Engineer, a detailed part 12D inspection plan that includes an independent consultant team proposal that describes the technical disciplines and level of expertise required to perform the inspection. (1) If the independent consultant team comprises one person, the detailed independent consultant team proposal must:

(i) Describe the experience of the independent consultant; and

(ii) Show that the independent consultant meets the requirements as defined in §§ §12.31(a) and §-12.31(b)(3).

(2) If the independent consultant team comprises more than one person, the detailed independent consultant team proposal must:

(i) Designate one or more persons to serve as independent consultant(s);

(ii) Describe the experience of each member of the independent consultant team;

(iii) Show that each independent consultant meets the requirements as defined in

§12.31(a);

(iv) Show that each member of the independent consultant team who is not designated as an independent consultant meets the requirements as defined in §12.31(a)(3) through (5); and

(v) Show that the independent consultant team meets the requirements as defined in §12.31(b)(3).

(3) If any member of the independent consultant team has performed or substantially contributed to any previous investigation, analysis, or other work product that is required to be reviewed and evaluated by the independent consultant team as part of the inspection being performed, the independent consultant team proposal must include a clear delineation of roles and responsibilities that ensures no team member will be responsible for reviewing and evaluating their own previous work.

(4) If required information about any supporting team member(s) is not available at the time the independent consultant team proposal is submitted to the Director of the Division of Dam Safety and Inspections, the independent consultant team proposal must state that the information will be provided in the preliminary report required by §12.42.
(5) The 180-day period in paragraph (b) is measured from the scheduled date of the physical field inspection, potential failure mode analysis, or risk analysis, whichever occurs first.

(c) Regardless of experience and qualifications, any independent consultant may be disapproved by the Director of the Division of Dam Safety and Inspections for good cause, such as having had one or more reports on an inspection under this subpart D rejected by the Commission within the preceding five years.

(d) The Director of the Division of Dam Safety and Inspections may, for good cause shown, grant a waiver of the 10-year requirement in §12.31(a)(2). Any petition for waiver under this paragraph must be filed in accordance with §385.207 of this chapter.

§12.35 Periodic inspection.

A periodic inspection must include:

Docket No. RM20-9-000

(a) *Review of prior reports*. The independent consultant team must review and consider all relevant reports on the safety of the development made by or written under the direction of Federal or state agencies, submitted under Commission regulations, or made by other consultants. The licensee must provide to the independent consultant team all information and reports necessary to fulfill the requirements of this section. The independent consultant team must perform sufficient review to have, at the time of the periodic inspection, a full understanding of the design, construction, performance, condition, upstream and downstream hazard, monitoring, operation, and potential failure modes of the project works.

(b) *Physical field inspection*. The independent consultant team must perform a physical field inspection of accessible project works, including galleries, adits, vaults, conduits, earthen and concrete-lined spillway chutes, the exterior of water conveyances, and other non-submerged project works that may require specialized access to facilitate inspection. The inspection shall include review and assessment of all relevant data concerning:

- (1) Settlement;
- (2) Movement;
- (3) Erosion;
- (4) Seepage;
- (5) Leakage;
- (6) Cracking;
- (7) Deterioration;
- (8) Hydraulics;

(9) Hydrology;

(10) Seismicity;

(11)Internal stress and hydrostatic pressures in project structures and their foundations and abutments;

(12) The condition and performance of foundation drains, dam body drains, relief wells, and other pressure-relief systems;

(13) The condition and performance of any post-tensioned anchors installed, and other major modifications completed, to improve the stability of project works;

(14) The stability of critical slopes adjacent to a reservoir or project works; and

(15) Regional and site geological conditions.

(c) *Review of surveillance and monitoring plan and data*. The independent consultant team must:

(1) Review the surveillance procedures, instrumentation layout, installation details, monitoring frequency, performance history, data history and trends, and relevance to potential failure modes; and

(2) Review the frequency and scope of other surveillance activities.

(d) *Review of dam and public safety programs*. The independent consultant team must review the programs specified in this paragraph.

(1) Hazard potential. The independent consultant team must review the potential inundation area and document any significant changes in the magnitude and location of the population at risk since the previous inspection under this subpart D. (2) *Emergency Action Plan*. If the project development is subject to sSubpart C of this part, the independent consultant team must review the emergency action plan, including the emergency action plan document itself, the licensee's training program, and any related time-sensitivity assessment(s).

(3) *Public Safety Program*. The independent consultant team must review the public access restrictions and public safety warning signs and devices near the project works pursuant to § 12.52.

(4) *Owner's Dam Safety Program*. If the project is subject to subpart F of this part, the independent consultant team must review the implementation of the licensee's Owner's Dam Safety Program with respect to the project development being inspected under this subpart D.

§12.36 Report on a periodic inspection.

(a) *Scope*. The report must include documentation of all the items listed in §12.35.

(b) Specific evaluation. The report must include specific evaluation of:

(1) The history of performance of the project works through visual observations, analysis of data from monitoring instruments, and previous inspections;

(2) The quality and adequacy of maintenance, surveillance, methods of project operations, and risk reduction measures for the protection of public safety and continued project operation;

(3) Potential failure modes, including:

(i) **Ee**ach identified potential failure mode associated with the project works and whether any potential failure mode is active or developing; and

(ii) Wwhether any inspection observations or other conditions indicate that an unidentified potential failure mode is active, developing, or is of sufficient concern to warrant development through a supplemental potential failure mode analysis;

(4) Whether any observed conditions warrant reconsideration of the current hazard potential classification; and

(5) The adequacy of the project's:

(i) Emergency action plan;

(ii) Public safety program; and

(iii) Implementation of the Owner's Dam Safety Program with respect to the project development being inspected under this subpart D.

(c) *Changes since the previous inspection*. The report must include a status update and evaluation of any changes since the Previous Part 12D Inspection concerning:

(1) *Hydrology*. Identify any events that may affect the conclusions of the hydrologic or hydraulic analyses of record and evaluate the effect on the safety and stability of project works.

(2) *Seismicity*. Identify any seismic events that may affect the conclusions of the seismicity analyses of record and evaluate the effect on the safety and stability of project works.

(3) *Modifications to project works*. Identify any modifications made to project works and evaluate the performance thereof with respect to the design intent.

(4) *Methods of operation*. Describe any changes to standard operating procedures, equipment available for project operation, and evaluate the effect on the safety and stability of project works.

(5) *Results of special inspections*. Summarize the findings of any special inspections (dive inspection, rope-access gate inspection, toe drain inspection, etc.), if any.

(6) *Previous recommendations*. List and document the status of recommendations made by the independent consultant(s) in the Previous Part 12D Report, and any earlier recommendations that remained incomplete at the time of the Previous Part 12D Report.

(7) *Outstanding studies and studies completed since the previous inspection*. List and document the status of any studies completed since the Previous Part 12D Inspection and those that remain outstanding at the time of the periodic inspection.

(d) *Recommendations*. Based on the independent consultant team's field observations, evaluations of the project works, and the maintenance, surveillance, and methods of operation of the development, the report must contain recommendations by the independent consultant(s) regarding:

 Any corrective measures, described in §12.41, necessary for the structures, maintenance or surveillance procedures, or methods of operation of the project works;

(2) A reasonable time to carry out each corrective measure; and

(3) Any new or additional monitoring instruments, periodic observations, special inspections, or other methods of monitoring project works or conditions that may be required.

(e) *Dissenting views*. If the inspection and report were conducted and prepared by more than one independent consultant, the report must clearly identify and describe any dissenting views concerning the evaluations or recommendations of the report that might be held by any individual consultant.

(f) *List of participants*. The report must identify all professional personnel who have participated in the inspection of the project or in preparation of the report and the independent consultant(s) who directed those activities.

(g) *Statement of independence*. Each independent consultant responsible for the report must declare that all conclusions and recommendations in the report are made independently of the licensee, its employees, and its representatives.

(h) *Signature*. The report must be signed and sealed, with a professional engineer's seal, by each independent consultant responsible for the report.

§12.37 Comprehensive assessment.

A comprehensive assessment must include:

(a) *Review of prior reports and analyses of record*. The independent consultant team must review and consider all relevant reports on the safety of the development made by or written under the direction of Federal or state agencies, submitted under Commission regulations, or made by other consultants. The licensee must provide to the independent consultant team all information, reports, and analyses of record necessary to fulfill the requirements of this section.

(1) In addition to the requirements of §12.35(a), the independent consultant team must have a full understanding of the risk associated with the project works.

Docket No. RM20-9-000

(2) The independent consultant team shall perform a detailed review of the as-built drawings; monitoring data; and the methods, assumptions, calculations, results, and conclusions of the analyses of record pertaining to:

(i) Geology and seismicity;

(ii) Hydrology and hydraulics;

(iii) Stability and structural integrity of project works; and

(iv) Any other analyses relevant to the safety, stability, and operation of project works.

(b) *Physical field inspection*. The independent consultant team must perform a physical field inspection that complies with §12.35(b).

(c) *Review of surveillance and monitoring plan and data*. The independent consultant team must perform a review of surveillance and monitoring plan and data that complies with §12.35(c).

(d) *Review of dam and public safety programs*. The independent consultant team must perform a review of dam and public safety programs that complies with §12.35(d).

(e) *Supporting Technical Information Document*. The comprehensive assessment shall include a review of the Supporting Technical Information Document.

(f)*Potential failure mode analysis*. The comprehensive assessment shall include a potential failure mode analysis.

(g) *Risk analysis*. The comprehensive assessment shall include a risk analysis. The Regional Engineer may, for good cause shown, grant a waiver of the requirement to complete a risk analysis. Any petition for waiver under this paragraph must be filed in accordance with § 385.207 of this chapter.

§12.38 Report on a comprehensive assessment.

(a) *Scope*. The comprehensive assessment report must include documentation of all the items listed in §12.37.

(b) *Specific evaluation*. In addition to the items listed in §12.36(b)(1) through §12.36(b)(5), the comprehensive assessment report must evaluate:

(1) The adequacy of spillways, including the effects of overtopping of nonoverflow structures, as described in §12.39;

(2) The structural adequacy and stability of structures under all credible loading conditions;

(3) The potential for internal erosion and/or piping of embankments, foundations, and abutments;

(4) The design and construction practices used during original construction and subsequent modifications, in comparison with the industry best practices in use at the time of the inspection under this subpart **D**;

(5) The adequacy of the Supporting Technical Information Document and the attached electronic records; and

(6) The adequacy and findings of the potential failure mode analysis and risk analysis report(s).

(c) *Analyses of record*. The comprehensive assessment report must include the independent consultant team's evaluation of the assumptions, methods, calculations, results, and conclusions of the items listed in §12.37(a)(2)(i) through (iv). The evaluation must:

(1) Address the accuracy, relevance, and consistency with the current state of the practice of dam engineering;

(2) Be accompanied by sufficient documentation of the independent consultant team's rationale, including, as needed, new calculations by the independent consultant team to verify that the assumptions, methods, calculations, results, and conclusions in the analyses of record are correct; and

(3) If the independent consultant team is unable to review the analyses of record for any of the items listed in §12.37(a)(2)(i) through (iv); or if the independent consultant team disagrees with the assumptions, methods, calculations, results, or conclusions therein; the independent consultant(s) must recommend that the licensee complete new analyses to address the identified concerns.

(d) *Changes since the previous inspection*. The requirements of this section are the same as described in §12.36(c).

(e) *Recommendations*. The requirements of this section are the same as described in §12.36(d).

(f) *Dissenting views*. The requirements of this section are the same as described in §12.36(e).

(g) *List of participants*. The requirements of this section are the same as described in §12.36(f).

(h) *Statement of independence*. The requirements of this section are the same as described in §12.36(g).

(i) *Signature*. The requirements of this section are the same as described in §12.36(h).

§12.39 Evaluation of spillway adequacy.

The adequacy of any spillway must be evaluated, as part of a comprehensive assessment or as otherwise requested by the Regional Engineer, by considering hazard potential which would result from failure of the project works during normal and flood flows. (a) If failure would present a hazard to human life or cause significant property damage, the independent consultant team must evaluate the following for floods up to and including the probable maximum flood:

(1) The ability of project works to withstand the loading or overtopping which may occur during floods;

(2) The capacity of spillways to prevent the reservoir from rising to an elevation that would endanger the project works; and

(3) The potential for misoperation of; failure to operate; blockage of; or debilitating damage to a spillway and its appurtenances (including but not limited to structural, mechanical, and electrical components of gates, valves, chutes, and training walls); and the effect thereof on the maximum reservoir level and potential for surcharged loading or overtopping to occur during floods.

(b) If failure would not present a hazard to human life or cause significant property damage, spillway adequacy may be evaluated by means of a design flood of lesser magnitude than the probable maximum flood provided that the most recent comprehensive assessment report required by §12.38 provides a detailed explanation of and rationale for the finding that structural failure would not present a hazard to human life or cause significant property damage.

§12.40 Time for inspections and reports.

(a) *Projects previously inspected by independent consultant*. For any project that was inspected under this subpart D prior to April 11, 2022[INSERT EFFECTIVE DATE

OF THIS ORDER, under the Commission's rules in effect on January 1,

2022[INSERT YEAR OF THE EFFECTIVE DATE OF THIS ORDER]:

(1) A periodic inspection or comprehensive assessment must be completed, and the report on it filed, within five years of the due date of the Previous Part 12D Report.

(2) For any report due to be filed under this subpart D after October 11, 2023[INSERT

DATE 18 MONTHS AFTER EFFECTIVE DATE OF THIS ORDER, the Regional

Engineer may require that it be a report on a comprehensive assessment or a report on a periodic inspection.

(3) The first comprehensive assessment under this subpart must be completed, and the report on it filed, by December 31, 2038.

(b) *Projects not previously inspected by independent consultant*. For any project that was not inspected under this subpart D prior to April 11, 2022[INSERT EFFECTIVE DATE OF THIS ORDER], under the Commission's rules in effect on January 1, 2022

[INSERT YEAR OF THE EFFECTIVE DATE OF THIS ORDER]:

(1) For any development that meets the criteria specified in §12.30(a)(1) or §12.30(a)(2), and was constructed before the date of issuance of the order licensing that development, or amending a license to include that development, the first comprehensive assessment under this subpart **D** must be completed, and the report on it filed, not later than two years after the date of issuance of the order licensing that development or amending the license to include that development.

(2) For any development that was constructed after the date of issuance of the order licensing that development, or amending a license to include that development, the first comprehensive assessment under this subpart **D** must be completed, and the report on it filed, not later than five years after the date of issuance of the order licensing that development or amending the license to include that development.

(3) For any development not set forth in either paragraph (b)(1) or (b)(2) of this section, the first comprehensive assessment under this subpart **D** must be completed, and the report on it filed, by a date specified by the Regional Engineer. The filing date must not be more than two years after the date of notification that a comprehensive assessment and report under this subpart **D** are required.

(c) *Subsequent inspections and reports*. For subsequent reports filed under this subpartD:

A comprehensive assessment must be completed, and the report on it filed, within
 years of the date the previous comprehensive assessment report was due to be filed.
 A periodic inspection must be completed, and the report on it filed, within five years of the date the previous comprehensive assessment report was due to be filed.

(d) *Extension of time*. For good cause shown, the Regional Engineer may extend the time for filing the report on a comprehensive assessment or periodic inspection under this subpart D.

(e) *Type of Report*. For good cause, the Regional Engineer may require that any report due to be filed under this subpart **D** be a report on a comprehensive assessment or a report on a periodic inspection, notwithstanding the type of review (periodic inspection or comprehensive assessment) scheduled to be performed under paragraphs (c)(1) and (c)(2) of this section.

§12.41 Corrective measures.

(a) *Corrective measures*. For items identified during a periodic inspection or comprehensive assessment as requiring corrective action, the following conditions apply:
(1) *Corrective plan and schedule*. (i) Not later than 60 days after a report on a periodic inspection or comprehensive assessment is filed with the Regional Engineer, the licensee must submit to the Regional Engineer a plan and schedule for addressing the recommendations of the independent consultant(s) and for investigating, designing, and carrying out any corrective measures that the licensee proposes to implement.

(ii) The plan and schedule may include any proposal, including taking no action, that the licensee considers a preferable alternative to any corrective measure recommended in the report of the independent consultant(s). Any proposed alternative must be accompanied by the licensee's complete justification and detailed analysis and evaluation in support of that alternative.

(2) *Carrying out the plan*. The licensee must complete all corrective measures in accordance with the plan and schedule submitted to, and approved or modified by, the Regional Engineer, and on an annual basis must submit a status report on the corrective measures until all have been completed.

(3) *Extension of time*. For good cause shown, the Regional Engineer may extend the time for filing the plan and schedule required by this section.

(b) *Emergency corrective measures*. The licensee must provide that if, in the course of a periodic inspection or comprehensive assessment conducted under this subpart **D**, an independent consultant discovers any condition for which emergency corrective measures are advisable, such as a condition affecting the safety of a project or project works as defined in §12.3(b)(4) of this part, the independent consultant must immediately notify the licensee and the licensee must report that condition to the Regional Engineer pursuant to §12.10(a) of this part. Emergency corrective measures must be included in the corrective plan and schedule required by paragraph (a)(1) of this section, and are also subject to paragraphs (a)(2) and (a)(3) of this section.

§12.42 Preliminary reports.

At least 30 days prior to the performance of a periodic inspection or comprehensive assessment, a preliminary report prepared by the independent consultant team must be filed by the licensee with the Regional Engineer to document the initial findings, understanding, and preparation of the independent consultant team.

(a) For any periodic inspection, the 30-day period is measured from the scheduled date of the physical field inspection.

(b) For any comprehensive assessment, the 30-day period is measured from the scheduled date of the physical field inspection, potential failure mode analysis, or risk analysis, whichever occurs first.

(c) If the Regional Engineer determines that the preliminary report does not clearly demonstrate that the independent consultant team is adequately prepared for the inspection, the Regional Engineer may require the inspection to be postponed. Any such postponement shall not constitute good cause for an extension of time under §12.40(d).
(d) If any required supporting team member information was not provided with the independent consultant team proposal required by §12.34(b), it must be provided with the preliminary report.

Subpart E—Other Responsibilities of Applicant or Licensee

§§ 12.40 through 12.44 [Redesignated as §§ 12.50 through 12.54]

10. Redesignate §§ 12.40 through 12.44 as §§ 12.50 through 12.54, respectively.

§§ 12.55 through 12.59 [Reserved]

13. Add reserved §§ 12.55 through 12.59.

14. Amend newly designated § 12.50 in paragraph (a) by removing "§ 12.39" and adding in its place "§ 12.41".

13. Revise newly redesignated § 12.52 to read as follows:

§ 12.52 Warning and safety devices.

(a) To the satisfaction of, and within a time specified by the Regional Engineer, an applicant or licensee must install, operate, and maintain any signs, lights, sirens, barriers,

or other safety devices that may reasonably be necessary or desirable to warn the public of fluctuations in flow from the project or otherwise to protect the public in the use of project lands and waters.

(b) The Regional Engineer may require the applicant or licensee to prepare,

periodically update, and file with the Commission a public safety plan that formalizes the installation, operation, and maintenance of all necessary public safety devices.

§ 12.54 [Amended]

14. Amend newly redesignated § 12.54 as follows:

a. In paragraph (b)(2), remove "the periodic" and add in its place "an" and add "gate"

directly following the second appearance of the word "spillway"; and

b. In paragraph (c)(2), remove "the periodic" and add in its place "an".

15. Add subpart F, consisting of §§ 12.60 through 12.65, to read as follows:

Subpart F—Owner's Dam Safety Program

Sec.

12.60 Applicability.
12.61 Definitions.
12.62 General requirements.
12.63 Contents of Owner's Dam Safety Program.
12.64 Annual review and update of Owner's Dam Safety Program.
12.65 Independent external audit and peer review.

§ 12.60 Applicability.

The licensee of any dam or other project work classified as having a high or significant

hazard potential, as defined in § 12.3(b)(13)(i) and (ii), is required to submit an Owner's

Dam Safety Program to the Regional Engineer.

§ 12.61 Definitions.

For purposes of this subpart **F**:

(a) *Chief Dam Safety Engineer* means the designated individual, who is a licensed professional engineer with experience in dam safety, who oversees the implementation of the Owner's Dam Safety Program and has primary responsibility for ensuring the safety of the licensee's dam(s) and other project works.

(b) *Chief Dam Safety Coordinator* means the designated individual, who is not required to be a licensed professional engineer, who oversees the implementation of the Owner's Dam Safety Program and has primary responsibility for ensuring the safety of the licensee's dam(s) and other project works.

§ 12.62 General requirements.

(a) The Owner's Dam Safety Program shall designate either a Chief Dam Safety Engineer or Chief Dam Safety Coordinator, as defined in §12.61. Any Owner's Dam Safety Program that includes one or more dams or other project works classified as having a high hazard potential, as defined in §12.3(b)(13)(i), shall designate a Chief Dam Safety Engineer.

(b) The Owner's Dam Safety Program must be signed by the Owner and, as applicable, the Chief Dam Safety Engineer or the Chief Dam Safety Coordinator.

(c) The Owner's Dam Safety Program must be reviewed and updated on a periodic basis as described in § 12.64 and, if applicable, must undergo an independent external audit or peer review as described in § 12.65.

(d) The Owner may delegate to others, such as consultants, the work of establishing and implementing the Owner's Dam Safety Program and the role of Chief Dam Safety Engineer or Chief Dam Safety Coordinator, as applicable.

(1) If the role of Chief Dam Safety Engineer or Chief Dam Safety Coordinator is delegated to an outside party who does not oversee the day-to-day implementation of the Owner's Dam Safety Program, the Owner must designate an individual responsible for overseeing the day-to-day implementation.

(2) Any delegation made in accordance with paragraph (d) of this section must be documented in the Owner's Dam Safety Program.

(3) The Owner retains ultimate responsibility for the safety of the dam(s) and other project works covered by the Owner's Dam Safety Program.

§ 12.63 Contents of Owner's Dam Safety Program.

The Owner's Dam Safety Program shall contain, at a minimum, the following sections:

- (a) Dam safety policy, objectives, and expectations;
- (b) Responsibilities for dam safety;
- (c) Dam safety training program;
- (d) Communication, coordination, reporting, and reports;
- (e) Record keeping and databases; and
- (f) Continuous improvement.

§ 12.64 Annual review and update of Owner's Dam Safety Program.

The Owner's Dam Safety Program, and the implementation thereof, shall be reviewed at least once annually by the licensee's dam safety staff and discussed with senior management of the Owner's organization. The licensee shall submit the results of the annual review, including findings, analysis, corrective measures, and/or revisions to the Owner's Dam Safety Program, to the Regional Engineer.

§ 12.65 Independent external audit and peer review.

(a) *Applicability*. For licensees of one or more dams or other project works classified as having a high hazard potential, as defined in §12.3(b)(13)(i), an independent external audit or peer review of the Owner's Dam Safety Program, and the implementation thereof, shall be performed at an interval not to exceed five years.

(b) *Qualifications*. A statement of qualifications for the proposed auditor(s) or peer review team that demonstrates independence from the licensee and its affiliates shall be submitted to the Regional Engineer for review, and written acceptance thereof must be obtained from the Regional Engineer prior to performing the audit or peer review.

(c) *Reporting*. (1) The auditor(s) or peer review team shall document their findings in a report.

(2) The report on the audit or peer review shall be reviewed by the Owner, Chief Dam Safety Engineer or Chief Dam Safety Coordinator, and management having responsibility in the area(s) audited or reviewed.

(3) The report on the audit or peer review shall be submitted to the Regional Engineer.