



September 22, 2020

Secretary of the Commission  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

RE: National Hydropower Association's Comments on Notice of Proposed Rulemaking, Safety of Water Power Project and Project Works, Docket No. RM20-9-000

## **I. Introduction**

### **A. The National Hydropower Association**

The National Hydropower Association (NHA)<sup>1</sup>, along with the Edison Electric Institute (EEI)<sup>2</sup>, Northwest Hydroelectric Association (NWEA)<sup>3</sup> and Alaska Power Association (APA)<sup>4</sup> are pleased to submit the following comments in response to the Federal Energy Regulatory Commission's Notice of Proposed Rulemaking (NOPR) on 18 CFR Part 12, Safety of Water Power Projects and Project Works. The Commission issued the NOPR on July 16, 2020 providing a sixty-day comment period after publication within the Federal Register. On July 16, 2020, FERC also released draft Chapters 15 through 18 of the *Engineering Guidelines for the Evaluation of Hydropower Projects* for public comment. NHA filed comments on the draft guidelines on September 14, 2020. NHA is committed to working with the Commission, state and federal resource agencies, and other stakeholders to enhance public safety.

NHA commends FERC for exploring ways the D2SI program can be changed to further enhance the safety and stability of the nation's non-federal hydropower dams. It is important that the industry, regulators and policymakers learn from events like the Oroville dam incident to determine if there are appropriate steps that need to be taken to prevent such failures from occurring. NHA recognizes the

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<sup>1</sup> NHA is a national non-profit trade association dedicated exclusively to advancing the interests of the U.S. hydropower industry, including conventional, pumped storage, and new marine and hydrokinetic technologies. NHA's membership consists of over 240 organizations, including consumer-owned utilities, investor-owned utilities, independent power producers, equipment manufacturers, environmental and engineering firms, and attorneys.

<sup>2</sup> EEI is the association that represents all U.S. investor-owned electric companies. Our members provide electricity for about 220 million Americans and operate in all 50 states and the District of Columbia. As a whole, the electric power industry supports more than 7 million jobs in communities across the United States. EEI's members are committed to providing affordable and reliable electricity to customers now and in the future. EEI's members includes electric utilities that own and operate hydropower projects.

<sup>3</sup> NWEA is a non-profit trade association that represents and advocates on behalf of the Northwest hydropower industry. NWEA has over 135 members from all segments of the industry.

<sup>4</sup> APA is the statewide trade association that represents the electric utilities that supply power to more than a half-million Alaskans from Utqiagvik to Unalaska, through the Interior and Southcentral, and down the Inside Passage. APA's membership comprises electric cooperatives, municipal electric utilities, investor-owned electric utilities and a joint action agency. Twenty-seven percent of Alaska's electric power generation comes from hydro.

challenge FERC has been tasked with as well as the complexity involved in creating a process that better identifies ongoing issues across an industry of highly individualized projects. The hydropower industry recognizes that certain infrastructure within the hydro fleet is aging and may warrant additional investment. NHA believes FERC's goal of the Notice of Proposed Rulemaking (NOPR) is to help identify where appropriate investments are needed. These comments include suggestions for improvement in the NOPR to ensure that safety, risk and financial burden are considered when making changes to the D2SI program.

While NHA supports FERC's efforts to revise its dam safety regulations, the association believes that some of the proposed revisions in the NOPR will not enhance public safety. In fact, some of the proposed changes are extremely problematic. In particular, FERC is expanding the amount of work that is required to comply with the program while at the same time making it more difficult to obtain qualified independent consultants to carry out the additional work. A key objective of the proposed rule is the identification of risk. However, NHA does not believe the proposed regulations will necessarily reduce risk. This is particularly true with regard to the classification of risk and application of resources to all project features. Finally, the cost impacts to the new Part 12 process will create an unwarranted financial burden for some licensees with regard to the additional analyses and reports, especially for smaller owners, without necessarily providing the benefits of risk assessment FERC is seeking. These comments, which are organized by section within the regulations, provide suggested changes, request additional clarity and outline concerns from the industry. NHA urges FERC take the following actions before issuing a final rule:

- Consider hazard in a more focused manner to avoid disproportional allocation of resources to low risk features or projects;
- Provide transparency as to how civil penalties will be applied;
- Remove or replace certain provisions that will restrict the pool of qualified IC's including applying the ten-year IC requirement only to the lead IC and removing requirements restricting an IC having done previous work for a licensee;
- Remove the requirement that an IC review the ODSP within a CA or PI, unless the review is limited to adequacy and implementation;
- Reconsider certain proposed regulations within reporting of "safety-related incidents" that are beyond an owner's capacity to determine, which may create undue liability for a licensee;
- Perform a cost-benefit analysis of the CA process with regard to cost implications on the licensee and benefit in risk analysis;
- Provide additional time for filing within the CA process and consider FERC's resources in turnaround of approvals;
- Consider an Appeals Board or Board of Consultants tasked with providing guidance in cases where there is disagreement in recommended corrective measures; and
- NHA urges FERC to provide training on the new regulations and corresponding proposed processes introduced within the rule.

## **II. Subpart A – General Provisions**

### **A. 12.3 – Definitions**

NHA requests additional clarity regarding the addition of “including recreation” to the definition of “condition affecting the safety of a project or project works”. By including recreational activities within the safety of project works it is unclear what the broadened scope will cover nor is it clear what the intended purpose is of the amended definition. It is also unclear whether it will include all FERC approved recreation sites required within a license. For instance, will licensees have to report or be liable for a tree falling across a trail? NHA requests the Commission provide an alternative definition of project works that makes it clear what the licensee will be responsible for.

In addition, NHA is concerned that the proposed revisions to the hazard definitions are unclear. While it is understandable the Commission is attempting to stay up to date with FEMA’s Hazard Potential Classification System for Dams, NHA believes the proposed revisions do not clearly distinguish between varying levels of hazard. In particular, the NOPR seeks to apply these classifications beyond dams, however is unclear how this will be done and what particular segments of the facilities (i.e. canals and other water conveyances) will be classified. In addition, there appears to be no distinction between “significant” and “low” hazard structures. NHA calls on FERC to consider hazard in a more discrete and focused manner, which clearly delineates levels of hazard. Doing so will avoid disproportional allocation of resources to low risk features.

### **B. 12.4 – Staff administrative responsibility and supervisory authority**

The proposed rule establishes new penalty authority with regard to failure to comply with an order or directive while at the same time expanding the scope of the list of conditions. NHA requests clarity as to whether the phrase “any order or directive” in 12.4(c)(1) includes general correspondence that contain regulatory commitments. Although “order or directive” is used in the current rule, we encourage FERC to provide some guidance as to what constitutes an order or directive and what other communication by the Regional Manager falls outside those definitions. NHA is concerned that 12.4(d)’s new penalty provision for civil penalties is significant with potentially severe consequences. Yet, the proposed rule does not expressly provide a clear explanation of its application. NHA asks that FERC provide transparency on how it will be applied.

## **III. Subpart B – Reports and Records**

### **A. 12.10 – Reporting safety-related incidents**

FERC’s NOPR makes several changes to reporting requirements for “safety-related incidents”. These changes appear to broaden the definition of project-related events, including a new requirement to report on rescues. NHA supports the current rule on project safety reporting. We are concerned the proposed changes could force licensees to make conclusions they are ill-equipped to make based on incomplete information. First, the proposed revisions expand the definition to include deaths, serious injuries or rescues that “involve changes in water levels or flows”. It is unclear who is supposed to make the determination that any death, injury or rescue was related to water levels. For run of river projects, determining what incidents are related to the natural flow of the water and which are related to project flows would be especially difficult, if not impossible. The amount of investigative work to determine precisely the cause of any accident, injury and in particular rescues is beyond the means of licensees. Most accidents or rescues do not have local law enforcement investigation into what occurred. With

absent direct information from law enforcement or investigative authorities, it is extremely difficult to determine the cause of accidents or rescues.

Second, NHA is concerned that by requiring reporting of accidents, deaths and rescues based on causes that are within the parameters of their license, licensees may now have an added safety responsibility. This could ostensibly create liability even when operating in compliance with its license. NHA recommends deletion of 12.10(b)(4)(ii) as it is too difficult to determine.

Finally, NHA believes that 12.10(b)(4)(iii) is unnecessary as 12.10(b)(4)(i) clearly defines what is project-related. Inclusion of this catch-all phrase will only create confusion among licensees to determine the root cause of every incident with no discernible impact on project safety.

#### **B. 12.12 – Maintenance of Records**

With regard to the proposed revisions to 12.12(b)(3), NHA requests that FERC clarify whether a company network would be sufficient to comply with the regulations. In addition, NHA recommends deletion of the “physical” requirement of submission of records as electronic copies should be sufficient to satisfy this requirement.

### **IV. Subpart D – Review, Inspection and Assessment by Independent Consultant**

#### **A. 12.30 – Applicability**

NHA believes applying Part 12 requirements equally to high and low hazard features does not improve risk management, as it does not allow for the application of resources where they can achieve the highest value. A single high-hazard feature could place the entire development within the Part 12 process, including cases where the rest of the development is low hazard. Although this is common practice in the current application of the Part 12D program, NHA believes these regulations subject owners and FERC to additional risk by not recognizing a difference between high hazard and low hazard elements of a development that fall under Part 12D. We recommend FERC make a clear distinction of high versus low.

The proposed revision within 18 CFR 12.30(b) states, “a project feature (dam, canal, or water conveyance) or any portion thereof that has a high hazard potential, as defined in §12.3(b)(14)”. NHA recommends the high hazard potential definition in 18 CFR 12.3(b)(14) be modified to exclude recreational access to project lands, or 18 CFR 12.30(b) be revised to narrow the applicability of the revision. As it stands, this revision expands the number of projects which are subject to Subpart D. By allowing public access to project lands with above ground penstocks for recreation this could inadvertently increase the hazard potential.

#### **B. 12.31 – Definitions**

NHA agrees it is vital that an Independent Consultant (IC) have the necessary experience in order to properly review a project and under certain circumstances, a team of individuals is necessary to complete the review process. However, NHA has several concerns related to the proposed changes. We believe it inadvertently reduces the pool of available resources without providing additional safety.

NHA requests FERC provide greater clarity as to whether the ten-year experience requirement applies to one member of the IC team or extends to other members of the IC Team. The current IC experience standard is ten years. It is unclear whether the intent is to simply codify the current standard applying it



to one lead IC or all lead IC's in cases where there are more than one. NHA encourages FERC to limit the requirement to just one of the lead IC's in cases where there are two or more, and not to extend the provision to the remaining IC Team members. Under this condition, a licensee is provided the opportunity to designate the IC and team members based on requisite experience. As the pool of IC's is shrinking, FERC should encourage policies that will enable younger, less experienced team members to gain experience and eventually expand the pool of qualified ICs.

Additionally, NHA requests clarity as to the number of professional engineers that are required within the IC team, and whether one professional engineer acting as the lead will meet FERC's requirements.

With regard to the restriction on an IC having done past work for a licensee, NHA suggests FERC consider the negative impacts this provision may have on the supply of qualified ICs available for Part 12 Comprehensive Assessments (CA) and respectfully requests that it be removed.

As mentioned above, the pool of available, qualified consultants is very limited. Taking into consideration the requirements of this restriction, additional consultants will be required per assessment with additional time required within the assessment; in the field, conducting a Potential Failure Mode Analysis (PFMA), conducting a risk assessment, as well as in the preparation of the reports. Licensees may also find themselves in a position where they seek consultants from outside their region, thus incurring additional travel costs. The proposed rule could place even greater burden on smaller licensees whose resources may be more limited than larger licensees in securing and scheduling timely Part 12 assessments. Furthermore, a consultant's past experience related to a project could, in fact, make the individual more qualified to complete a Part 12 review.

The proposed rule may also limit the number of consultants and firms available to perform critical engineering design work. To not preclude themselves for future Part 12 work, some consultants and firms may elect to restrict themselves and no longer contract for design work for licensees. The same could be true in cases where consultants and firms elect to restrict themselves to no longer take on Part 12 work, so as to not preclude themselves from taking on design work.

Licensed professional engineers already must adhere to professional practice requirements which are codified in nearly all licensing jurisdictions that address conflict-of-interest issues. NHA recommends FERC consider other alternatives that might meet the ultimate goals of this restriction, and offers the following alternatives for consideration; 1.) possible exclusion of the requirement in cases where an IC engaged in minor previous work; 2.) possible exclusion based on composition of the previous review team, a lead would not be considered, however an IC that practiced in a minor role would be considered; 3.) levels of separation with regard to timing between reviews, perhaps a full review cycle CA and Periodic Inspection (PI) between an IC reviewing a project.

Additionally, NHA requests the term "agent" be defined. Several examples provided in the proposed Chapter 16 guidelines take an expansive view of the term. Licensees need to know how the full scope of the definition will be applied.

### **C. 12.32 – General Inspection Requirement**

With regard to the general inspection requirement, NHA requests greater clarity between high and low hazard features. The requirement for inspection does not distinguish between high and low hazard features within the project works and the objectives of the inspection.

Additionally, NHA suggests the following revision to 18 CFR 12.32:

“The project works of each development to which this subpart applies, excluding transmission and transformation facilities **and generating equipment**, 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~~, the public including deficiencies that may be in the condition of those project works or in the quality or adequacy of project maintenance, safety, **or** methods of operation, ~~analyses, and other conditions described in the Guidelines.~~”

#### **D. 12.33 – Exemption**

NHA requests further clarity in regard to the exemption process under the proposed rule and Engineering Guidelines. It is stated that an exemption from Subpart D granted prior to the effective date of this rule no longer constitutes an exemption from the requirements of the subpart. However, Chapter 16 of the Engineering Guidelines appears to indicate that an exemption will not be granted without a CA having been completed.

Additionally, there is no detail required on the application content, however the proposed rule states that the review “is based on the current state of the practice, considering potential failure modes, consequences, and total project risk.” As written, it appears that a PFMA, risk analysis and possibly other studies will be required within the application process. Additionally, Table 1 of the proposed rule shows the Average Annual Burden in Hours and Cost is estimated to be \$166 for exemption requests. NHA believes this cost could be greatly underestimated given the lack of criteria required within the exemption process. NHA recommends that all exemptions remain in place until FERC can provide greater clarity within the exemption process and the necessity in rescinding an exemption.

NHA suggests FERC better define the criteria used to determine the hazard potential for all water conveyances. 18 CFR 12.33(b) extends the exemption requirement from dams to additionally include canals and water conveyances without a clear definition which could lead to large consequences for project owners. For example, under the proposed changes it could be argued that any pressured pipe constitutes a hazard. Currently, only Chapter 12 discusses hazard potential of canals, the expanded scope without further clarity is problematic creating potentially significant economic consequences without necessarily reducing risk. Therefore, NHA recommends FERC allow public comment on Chapter 12.

NHA requests further clarity in regard to the proposed rule’s applicability to low hazard projects that have and have not previously been required to apply for an exemption. It is not clear as to whether a low hazard development that has not previously been subject to the exemption process must apply for an exemption, and if so, what documentation will be required. It is also not clear as to the process a low hazard development that currently has an exemption is required to follow in reapplying. In addition, NHA recommends FERC consider allowing narrower exemptions for low hazard components of a development.

NHA requests FERC to provide more information on its communications plan. Will FERC communicate with licensees who were previously exempt, but are now subject to the requirements of the rule? Is there a list of these facilities? Will FERC prioritize these facilities in any way?

#### **E. 12.34 – Approval of Independent Consultant**

With regard to the approval of an independent consultant, NHA requests further clarity. The proposed rule requires a licensee to submit a detailed independent consultant team proposal 180 days prior to performing a CA or PI. The rule should define what function within the CA or PI process triggers the 180-day submittal.

While NHA agrees it is appropriate that a Regional Engineer have the authority to disapprove of an independent consultant team member for good cause, further clarity is needed as to what constitutes good cause. In regard to the example used within the proposed rule, the Director of D2SI may disapprove of an IC due to a report that has been rejected by the Commission within the preceding five years. Yet, it is not clear the type of report that falls under this example and whether it is specific to Part 12 inspection reports or expands to any engineering reports. Additional clarity is also requested as to whether a report being rejected by FERC within the preceding five years automatically disqualifies a member of the IC team.

Additionally, NHA requests whether FERC will provide further guidance on the specific qualifications needed of each team member.

#### **F. 12.35 – Periodic Inspection**

With regard to the PI, NHA suggests further consideration be given to the risk and hazard potential within the review of documentation and the inspection of project works and features. A scope could potentially be interpreted broadly enough to render the inspection unreasonable and impractical from a risk-benefit perspective. Additionally, NHA suggests the review and update of the Supporting Technical Information Document (STID) be a part of the PI. A review for completeness and needed updates of the STID will most likely be needed to support the inspection.

NHA believes the depth of review an IC is required to perform within a PI is significant and suggests the review of only certain documentation be required within the review process due to its cyclical nature. NHA offers documentation within the PI include; the STID, the two prior Part 12D reviews, the Dam Safety Surveillance and Monitoring Plan, the two previous Dam Safety Surveillance and Monitoring Reports, the previous five years of FERC correspondence and the previous five years of FERC annual inspection reports.

Additionally, NHA is concerned with the requirement stating the IC is to review the Owners Dam Safety Program (ODSP) and the Public Safety Plan (PSP) within the PI. This requirement could create significant exposure to liability for an IC who is highly qualified with respect to the technical and operational aspects of the project, but not with respect to evaluating organizational programs and effectiveness.

NHA respectfully requests this requirement be removed. The ODSP review should focus on policies, procedures and systems in place and not be tied to the specific technical analyses and condition of a dam. NHA also notes that owners with multiple projects may include several projects within their program.

Should FERC choose not to remove this requirement, at the very least NHA requests the IC's review be explicitly limited to adequacy and implementation of the ODSP or PSP only at the project in question. As

written, the requirement could be interpreted broadly to include scope already covered by five-year ODSP audits.

With regard to smaller projects, NHA believes the review of the ODSP by an IC Team and independent audit of the ODSP creates duplication of efforts. If FERC requires the IC Team review the ODSP, NHA recommends the independent audit requirement be removed for smaller projects.

If FERC's intent under this requirement is that the IC only confirm that the ODSP and PSP are being implemented then, NHA asks that the guideline better state FERC's intention and the level of review required.

#### **G. 12.36 – Report on a Periodic Inspection**

As previously mentioned, NHA recommends removal of the requirement that an IC sign off on a PSP. An IC may lack the qualifications necessary to adequately review the plan, thus potentially adding significant liability to the IC and his or her firm.

With regard to the PFMA, NHA requests clarity on Section 12.36(b) as to what is meant by “with a focus on whether any potential failure modes, whether previously identified or not”. Additionally, greater clarity is needed in regard to 12.36(b)(i) and a potential failure mode's ability to be active or developing.

#### **H. 12.37 – Comprehensive Assessment**

NHA commends FERC's dedication to dam safety, a dedication that is also shared by the hydropower industry. The proposed rule is generally a positive step toward improving the current state-of-practice in the dam safety industry, particularly in light of dam safety incidents that have occurred in recent years. The industry also recognizes the basis of the CA's scope revolves around the prevention of dam safety related issues and avoidance of potential future incidents.

However, FERC's analysis of the annual cost to comply with the proposed rule significantly underestimates the financial burden that will be created. The proposed changes will directly impact future operating and maintenance costs and will adversely impact the financial position of many licensees within the industry, particularly small hydropower facilities.<sup>5</sup> NHA urges the commission to

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<sup>5</sup> An example of the financial burden this rule may impose on a smaller owner is provided by an Alaskan member, noting to a certain degree FERC has already begun integrating the IC Team requirement within its process. Additional analyses were required as well as the addition of team members after the Part 12. All together the Part 12 report and additional analyses totaled over \$66,000.00.

Table 3 of the NOPR increases the annual burden for the Licensee of Simple Hydro Facility by twelve hours or just over \$2,500.00. Licensees in Alaska pay travel time during transit with hopes they are able to acquire an individual from the Pacific Northwest incurring a twelve to sixteen hour round trip travel time. Otherwise, travel time in excess of twenty-four hours is paid round trip for just one IC. In recent years the expense incurred for one person including travel time totaled over \$4,700.00. The addition of more individuals to an IC team will only amplify these costs, with just the labor cost of travel exceeding the estimate provided by FERC.

FERC has estimated a licensee's direct cost at \$83.00 an hour which does not cover labor costs for all companies, particularly when taking into consideration the addition of at least one engineer and a generation foreman's involvement. Federal government employees in Alaska are paid Locality Pay and COLA which are currently 29.67% and 2.86% respectively. Considering the average employee cost participating in these inspections and reports

perform a cost-benefit analysis of the proposed changes prior to implementing the rule.<sup>6</sup> The majority of the extra burden will be related to the additional analyses and reports required, including the Level 2 RA every ten years. NHA notes the requirement will also create issues within the consulting industry which currently lacks sufficient individuals that meet FERC's qualifications to execute RAs, particularly when considering the large number of projects that will need RAs in the coming years. NHA supports the potential for exemption to this requirement within the proposed rule.

NHA urges FERC to provide training on the new regulations, as well as the STID, Part 12, PFMA, and Level 2 RA processes. NHA offers coordination in training efforts that may be held at NHA workshops and regional meetings. There is also a concern as to whether FERC possesses the staffing and expertise to review the number of reports that will be filed. NHA inquires as to whether FERC will provide additional staff, including staff with a diversity of technical proficiency to complete reviews of the additional requested information.

With regard to 12.37(a)(1), NHA suggests the following revision to reflect the Guidelines:

“In addition to the requirements of §12.35(a)(1), the independent consultant team must have an ~~full~~ understanding of the risk, as defined in the Guidelines, associated with the project works.”

Additionally, NHA is concerned with the requirement stating the IC is to review the ODSP and the PSP (PSP) within the CA. This requirement could create significant exposure to liability for an IC who is highly qualified with respect to the technical and operational aspects of the project, but not with respect to evaluating organizational programs and effectiveness.

As previously mentioned, NHA recommends this requirement be removed. The ODSP review should focus on policies, procedures and systems in place and not be tied to the specific technical analyses and condition of a dam. NHA also notes that owners with multiple projects may include several projects within their program.

If consideration of the removal of this requirement will not be given, NHA urges that the IC's review be explicitly limited to adequacy and implementation of the ODSP or PSP at the project in question. As written, the requirement could be interpreted broadly to include scope already covered by five-year ODSP audits.

With regard to smaller projects, NHA believes the review of the ODSP by an IC Team and independent audit of the ODSP creates duplication of efforts. If FERC requires the IC Team review the ODSP, NHA requests the independent audit requirement be removed for smaller projects.

If FERC's intent under this requirement is that the IC only confirm that the ODSP and PSP are being implemented and a detailed review is not required, NHA urges that the guideline better state FERC's intention and the level of review required.

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totals 41% higher than FERC's estimated hourly cost. With respect to the addition of a full PFMA and RA to the process, costs will increase substantially beyond FERC's estimate.

<sup>6</sup> In holding preliminary discussions with several NHA members, it is estimated the Comprehensive Assessment will, at a minimum, double and more likely quadruple the cost of current Part 12 inspections.

With regard to the PFMA within the CA, it is unclear as to whether the PFMA introduced under the proposed rule will build on findings of the previous PFMA or an entirely new analysis would be required. If an existing PFMA is available, how will it be incorporated or used to inform the new analysis? NHA urges FERC to allow previous PFMA's to inform the process and that the proposed rule does not require duplication of existing information.

Relative to simple projects, NHA recommends a PFMA only be required in cases where there is a change in project works due to either modification or damage, or a major operating change. NHA believes placing the burden of conducting a full PFMA on a licensee of a simple project, that has had limited change between inspection cycles, adds costs to the project operations without benefit.

NHA also requests the Regional Engineer be granted the authority to waive the requirement to complete the PFMA, just as the proposed rule grants this authority to waive a semi-quantitative risk analysis.

With regard to the required Level 2 Risk Analysis within a CA, NHA requests clarity as to whether FERC will still require that licensees meet standard based analysis as well. If both are applied, how will the competing priorities be sorted out? We request that FERC provide further guidance.

#### **I. 12.38 – Report on a Comprehensive Assessment**

With regard to the report on a CA, NHA requests clarity on credible loading conditions referenced within 18 CFR 12.38(b)(2) and whether this requirement is standards based or risk based. For example, a probable maximum flood may have an annual exceedance probability that is too low on a risk plot.

With regard to 18 CFR 12.38(b)(4), NHA requests FERC to clearly delineate whether structures will no longer be "grandfathered in" if they do not meet current best practices, or as long as they meet current factors of safety, FERC would accept them.

With regard to section 18 CFR 12.38(c)(3) of the proposed rule, which states, "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 shall recommend that the licensee complete a new analysis to address the identified concerns." Would this proposal apply to as-built drawings? In many cases, as-built drawings are not available for older dams. In such cases FERC may need to consider a waiver.

#### **J. 12.39 – Evaluation of Spillway Adequacy**

NHA agrees with the need to evaluate spillway adequacy. However, the association has concerns with how this section of the proposed rule will be implemented, whether adequacy analysis is more appropriate as part of a PFMA, risk analysis, or hydraulic evaluation.

The proposed rule recommends the scope of analysis, there are a several scenarios in this section that may not have been previously analyzed. NHA is concerned about uniform implementation of a wide variety of potential scenarios and requests more detail on implementation in the final rule and the guidance documents.

Once more, NHA believes it may be more appropriate to address these potential performance issues (*potential for mis-operation of, failure to operate, blockage of, or debilitating damage to a spillway, and the resulting effects on the maximum reservoir level and the potential for overtopping*) and any associated consequences through the PFMA or risk analysis. We do believe, however, the hydraulic evaluation is the appropriate venue to analyze spillway adequacy for protection against hydraulic failures, including erosion and loss of a slab.

In addition, NHA believes it is important to evaluate whether or not a spillway and its appurtenant features, have been adequately designed to handle the size and type of debris expected, adequate redundancy for power has been provided and is tested to confirm availability, or if the operators are qualified and adequately trained so that there is adequate monitoring to detect a condition that may arise from a lack of spillway gate operation (i.e. level alarms).

With regard to credible loading conditions referenced within 12.39(a)(1), NHA requests more clarity on whether it is standards based or risk-based. For example, a probable maximum flood may have an annual exceedance probability that is too low on a risk plot.

#### **K. 12.40 – Time for Inspections and Reports**

With regard to time for inspections and reports, NHA inquires as to whether FERC has a plan in place to support the level of effort required to complete these reviews over a ten-year period and if so whether the plan accounts for industry resources.

NHA estimates a CA will take 18-24 months and recommends the filing date for a CA be 36 months after notification is received.

Section 12.40(e) appears to grant the Regional Engineer the ability to request a report on either a CA or a PI, regardless of which type of inspection was conducted. NHA recommends that reports coincide with the type of inspection conducted. If FERC is unable to consider this recommendation, NHA requests the Regional Engineer provide justification and give the licensee appropriate time to conduct the assessment.

NHA supports the Commission's inclusion of a preliminary report for CAs and PIs, but requests further guidance on how FERC proposes to implement this provision and the timeline. To ensure preliminary reports are filed on time, NHA requests clarity as to what constitutes the "beginning" of the inspection. In addition, NHA cautions that the addition of the preliminary report could substantially delay the "beginning" of the inspection if the Commission takes 60 days to review and respond to the IC Team proposal and another 60 days to review and comment on the preliminary report.

NHA also requests additional guidance on uniform implementation and standards for preliminary reports among the different regions and different Regional Engineers.

#### **L. 12.41 – Corrective Measures**

With regard to monitoring instruments 12.41(a)(1)(i), NHA suggests the insertion of "for" within the first sentence:

"the licensee must submit to the Regional Engineer a plan and schedule **for** addressing the recommendations of the independent consultant"

otherwise the licensee is required to address all concerns immediately, which is an unnecessary burden.

With regard to the corrective measures report, NHA believes the additional reporting is unnecessary and redundant, plans and schedules should be properly tracked by the owner and FERC. NHA suggests removing the following language from this section within 12.41(a)(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.”~~

Additionally, NHA suggests FERC consider creation of an Appeals Board, or Board of Consultants, that may offer guidance in all aspects of the Part 12 process in those cases where technical expertise may be lacking. Such a board could be invaluable in providing additional guidance and reducing risk.

**V. Subpart E – Other Responsibilities of Applicant or Licensee**

**A. 12.52 - Warning and safety devices**

With regard to section 12.52(b) NHA requests clarity as to whether or not the PSP is required to be developed in accordance with the Guidelines for Public Safety. It is our understanding that the guidelines are not formal regulations and are instead meant to provide guidance.

**VI. Subpart F – Owner’s Dam Safety Program**

**A. 12.62 – General Requirements**

While the industry supports the proposed changes to ensure a more robust dam safety program, NHA cautions FERC that this will be a challenge with the limited number of qualified individuals within the hydropower industry.

With regard to high hazard dams, NHA requests the final rule give clear authority that the Chief Dam Safety Engineer may be delegated to a consultant. Section 12.62(a) requires owners of high hazard dams to designate a Chief Dam Safety Engineer, however section 12.62(d) states the role of Chief Dam Safety Engineer can be delegated to a consultant.

**B. 12.63 – Contents of Owner’s Dam Safety Program**

With regard to the contents of the ODSP, section 12.63(g) states a draft chapter of the Engineering Guidelines is in development and will be provided at a later date. However, 18CFR 12.63(g) states “Other information as further described by the Guidelines”. NHA requests FERC clarify whether additional guidelines will be released with a specific focus on the ODSP, or if this section is referring to the draft Chapters 15 – 18 released with the proposed rule.

**C. 12.64 – Annual review and update of Owner’s Dam Safety Program**

With regard to the report on the annual review of the ODSP, NHA believes submittal of this report is duplicative effort with the completion of the Owner’s Inspection Preparation Form. NHA requests the following language be struck from 18CFR 12.64:

~~“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."~~

Additionally, NHA requests additional information as to whether or not the annual review of the ODSP will take the place of the existing annual internal audit.

#### **D. 12.65 – Independent External Audit and Peer Review**

With regard to the independent external audit and peer review, NHA requests that the external ODSP audit remain separate from the PI and CA. This would not preclude the audit from being performed by a qualified IC in conjunction with the PI or CA, particularly when the ODSP covers only one project.

### **VII. Conclusion**

Hydropower licensees are responsible for dam safety twenty-four hours a day, throughout the year. It is a responsibility that is taken seriously by dam owners, operators and consultants. Dam safety is not based upon a snapshot in time or considered only during hydropower relicensing, a common misconception. Ensuring that hydropower infrastructure is safe requires constant vigilance and a strong partnership between industry and state and federal governments. NHA applauds the dedication FERC has toward ensuring dam safety and recognizes the complexity involved in creating a process that better identifies emerging issues across the industry. NHA also appreciates the level of time and effort invested in the development of this NOPR.

NHA believes FERC's D2SI dam safety program is a robust and respected program. In fact, we could improve our nation's dam infrastructure and safety, and create thousands of jobs by adding hydropower, and subsequently D2SI oversight, to existing non-powered dams.

NHA looks forward to continued collaboration with FERC to ensure this critical infrastructure continues to provide the numerous benefits society has come to expect from dams. We hope FERC considers the areas of agreement, identified challenges and alternatives presented within our response to the proposed rule.

NHA appreciates the opportunity to provide these comments and discuss this important public safety topic.

Respectfully submitted,

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