

POLICY ISSUE
NOTATION VOTE

November 22, 2013

SECY-13-0124

FOR: The Commissioners

FROM: Mark A. Satorius
Executive Director for Operations

SUBJECT: POLICY OPTIONS FOR MERCHANT (NON-ELECTRIC UTILITY) PLANT
FINANCIAL QUALIFICATIONS

PURPOSE:

The purpose of this paper is to provide policy options relating to the U.S. Nuclear Regulatory Commission (NRC) process for evaluating the financial qualifications for merchant plant initial license applicants. Financial qualifications requirements are promulgated at Title 10 of the *Code of Federal Regulations* (10 CFR) 50.33(f) and 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," Appendix C, "A Guide for the Financial Data and Related Information Required to Establish Financial Qualifications for Construction Permits and Combined Licenses." This paper does not address financial qualifications requirements for current licensees or for other types of applicants such as those for non-power reactors or license transfers.

SUMMARY:

Under 10 CFR 50.33(f) and 10 CFR Part 50, Appendix C, applicants for initial licenses must demonstrate "reasonable assurance" that funds necessary to construct and operate a nuclear power plant are possessed or can be obtained. The sources of the funding must be provided in the application. Historically, applicants have relied on rate recovery to establish financial qualifications.

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The advent of 1990s deregulation has created a new class of “non-electric utility” initial license applicants. “Non-electric utility” applicants will be referred to as “merchant plant” applicants in this paper. These merchant plants sell the power they generate on the open market. Unlike traditional utility applicants, these merchant plant applicants have no defined rate-payer base, and cannot rely on such a base to demonstrate financial qualifications, per se. These merchant plant projects must, therefore, rely on traditional project-based financing or internal resources to advance their plants.

The industry asserts that in order to obtain financing, a merchant applicant needs to have already obtained a license, making it difficult if not impossible to identify the sources of funding, as required by the regulations.

The staff has identified two options for financial qualifications policy review for merchant plant applicants. These options are to retain the status quo, or to engage in rulemaking to amend or rescind, as appropriate, the financial qualifications regulations for initial license issuance. Additionally, industry proposed a “project finance” based license condition scenario. The staff, in coordination with the Office of the General Counsel, has concluded that the license condition proposal offered by industry is legally challenging and possibly infeasible and is not presented as an option. In order for a license condition to be viable, it must be able to be satisfied through a ‘ministerial’ act rather than a substantive post-license review. It appears to the staff that the industry proposed license condition would require a substantive, post-license, review and thus, is not a viable option.

The scope of this paper is limited to considering the nature of the NRC’s review of the financial qualifications of an applicant for a construction permit (CP) or operating license under 10 CFR Part 50 or for a combined license (COL) under 10 CFR Part 52. Accordingly, it does not address financial qualifications requirements either for current operating reactor licensees or for other types of applicants such as those for non-power reactors or license transfers.

If the Commission is willing to consider alternative ways to review an applicant’s financial qualifications, including whether such review is necessary or useful (in effect, to license initial license applicants with insufficient or no identified funding at the time their license is issued), then Option 2 would be appropriate. If the Commission does not wish to allow such applicants to receive licenses, then the status quo should be maintained. If the status quo is selected (Option 1), the Commission might consider setting an expiration date on unexecuted COLs or, alternatively, providing for a post-licensing, pre-construction confirmation of financial qualifications. Either of these status quo reforms could be accomplished using license conditions and would provide additional assurance that a licensee’s financial qualifications remain viable at the time of construction.

A non-concurrence on this paper, which is attached as [Enclosure 1](#), advocates for maintaining the status quo (Option 1). The non-concurrence advocates for maintaining the status quo in light of long-standing Commission precedent that has required the submission of financial qualifications information in order to obtain a license and potential risks associated with the ability of financially stressed licensees to operate and decommission safely. The staff agrees that the current regulations and Commission precedent require the submission of financial information. However, after reviewing the experience to date with the financial qualification

requirements, the staff believes that a reexamination of the efficacy of those requirements is appropriate.

Thus, the staff recommends that the Commission authorize the staff to begin a rulemaking effort to amend or rescind, as appropriate, the financial qualifications regulations for initial license issuance.

BACKGROUND:

Nuclear Innovation North America, LLC (NINA) raised an issue related to financial qualification requirements in a 2012 letter, as did the Nuclear Energy Institute (NEI) in a subsequent 2012 letter. These stakeholders said it is difficult, if not impossible, for merchant plant COL applicants to secure project funding to meet financial qualifications requirements in advance of initial license issuance because of perceptions from the financial community that the licensing process is uncertain. For this paper, "initial license" is intended to mean, a CP and an OL under 10 CFR Part 50, or a COL under 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants." Both NINA and NEI, in the letters they submitted to the NRC in 2012, refer to this as a generic issue of reactor, specifically merchant generator, COL issuance. There are no references in their letters to other types of applicants.

The major policy issue raised for Commission consideration is whether an applicant should be issued a COL if it has insufficient (or no) funding identified at the time the license is to be issued. The issue involves an additional policy consideration specific to COL applications because COLs do not expire, thereby allowing COL licensees to defer construction indefinitely. Such a deferral calls into question the efficacy of pre-license financial qualifications reviews.

The advent of deregulation has created a class of merchant plant licensees that are not regulated by a state public service commission with a rate-payer financial base. Industry has asserted that, in many, if not all, merchant plant cases, financiers will not commit project funding without an NRC license in hand. However, current NRC regulations have specific requirements that must be met in order to demonstrate that initial license applicants have reasonable assurance of financial qualifications as a condition precedent to receipt of a license. Industry asserts that this has created an impediment to initial licensing¹ for merchant plant applicants that cannot be resolved absent a change in Commission policy or regulation.

The Commission derives its authority to review license applicants' financial qualifications from Section 182a. of the Atomic Energy Act (AEA) of 1954, as amended. Section 182a. of the AEA provides, in part, that "[e]ach application for a license hereunder shall be in writing and shall specifically state such information as the Commission, by rule or regulation, may determine to be necessary to decide such of the technical and financial qualifications of the applicant, the character of the applicant, the citizenship of the applicant, or any other qualifications of the applicant as the Commission may deem appropriate for the license." The legislative history

¹ See Letter from Ellen Ginsberg to Chairman Macfarlane titled Request for Commission Guidance to Clarify Application of Financial Qualifications Requirements in the Context of New Nuclear Plant Developed by Merchant Generators regarding South Texas (Nov. 13, 2012) (ML12241A675).

does not offer any background on the AEA's purpose for authorizing the Commission to require information on financial qualifications.

Under 10 CFR 50.33(f), utility applicants are exempt from review of their financial qualifications for reactor operation. Utility applicants can demonstrate financial qualifications for construction by showing that they are allowed to recover their construction costs.² By contrast, applications from merchant plant applicants are substantively reviewed to ensure compliance with 10 CFR 50.33, "Contents of Applications; General Information," and 10 CFR Part 50, Appendix C for both construction and operation. These merchant plant financial qualifications reviews are conducted using the standard review plan guidance contained in NUREG-1577, "Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance," Revision 1, March 1999.

The staff has engaged in public outreach on this policy question to inform the development of the options presented. The NRC held two public meetings: one in October 2012 and the second in January 2013. The first meeting explored the question of whether an impediment to licensing³ exists and, if so, whether it is a generic issue. The second meeting focused on the viability of the license condition proposals advanced by NINA and NEI.⁴

DISCUSSION:

Demonstration of financial qualification before issuance of a license is required by current NRC regulations but is not required, per se, by the AEA. The AEA Section 182a. states that an applicant for a license must provide "information that the Commission, by rule or regulation, *may determine to be necessary* to decide technical and financial qualifications of the applicant as the Commission *may deem appropriate for the license.*" (Emphasis added). The AEA grants broad discretion to the Commission to determine what information it deems appropriate for issuance of the license.

As stated earlier, industry has asserted that the current financial qualifications regulations have created an impediment to initial licensing. The asserted impediment is that, without a license, these applicants cannot demonstrate financial qualifications in the detail required by the current regulation, yet the regulations require that demonstration before an initial license can be issued. Further, the fact that COLs have no expiration date allows COL holders to "bank" their licenses indefinitely and thereby undermines the usefulness of pre-licensing financial qualifications reviews. A one-time review performed, in the case of "banked COLs", potentially years before the commencement of construction, has little if any relevance to the financial qualification of the COL holder when that construction actually begins.

² See, e.g., Final Safety Evaluation Report for Combined Licenses for Virgil C. Summer Nuclear Station Units 2 and 3, p.1-38 – 1-39, (Aug. 17, 2011) (ML110310049).

³ Final Safety Evaluation Report for Combined Licenses for Virgil C. Summer Nuclear Station Units 2 and 3, p.1-38 – 1-39, (Aug. 17, 2011) (ML110310049).

⁴ Both meetings were transcribed. The October 2012 transcript can be found at ADAMS Accession No. ML12291A282, and the January 2013 transcript can be found at ADAMS Accession No. ML13022A446.

While it is unquestionably the duty of applicants to demonstrate that they meet NRC regulations, the extent of regulations concerning financial qualifications is within the discretion of the Commission. The discretionary nature of the Commission's financial qualifications determination has been validated by the Commission itself, and in Federal court. "*Section 182a. of the AEA does not impose any financial qualifications requirement on license applicants; it merely authorizes the Commission to impose such financial requirements as it may deem appropriate.*"⁵ The First Circuit has stated that "[t]he Act gives the NRC complete discretion to decide what financial qualifications are appropriate."⁶ The Commission's interpretation of the financial qualifications requirements has evolved into what exists today.

Regulatory Development of Financial Qualifications

Financial qualifications reviews originated in a regulation adopted by the Atomic Energy Commission in 1956, pursuant to its authority under the AEA to require from applicants: "Such information as the Commission ... may determine to be necessary to decide such of the technical and financial qualifications of the applicant ... as the Commission may deem appropriate."⁷ The 1956 rule stated that license applicants must be "technically and financially qualified to engage in the proposed activities."⁸

In 1968, the Commission revised 10 CFR 50.33(f) and added Appendix C to Part 50. These changes imposed more detailed financial qualifications regulations requiring each applicant to submit:

[i]nformation sufficient to demonstrate to the Commission the financial qualifications of the applicant to carry out, in accordance with the regulations in this chapter, the activities for which the permit or license is sought. If the application is for a construction permit, such information shall show that the applicant possesses the funds necessary to cover estimated construction costs and related fuel cycle costs or that the applicant has reasonable assurance of obtaining the necessary funds, or a combination of the two. If the application is for an operating license, such information shall show that the applicant possesses the funds necessary to cover estimated operating costs or that the applicant has reasonable assurance of obtaining the necessary funds, or a combination of the two.⁹

⁵ *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 & 2), CLI-78-1, 7 NRC 1, 8-9 (1978).

⁶ *New England Coalition on Nuclear Pollution v. NRC*, 582 F.2d 87, 93 (1st Cir. 1978).

⁷ Atomic Energy Act (AEA) of 1954, 42 U.S.C. 2011, 83 Pub. L. 703, Section 182a., as amended.

⁸ 10 CFR 50.40(b) (Supp.1956).

⁹ "Part 50-Licensing of Production and Utilization Facilities," 33 Fed. Reg. 9704 (July 4, 1968).

The information required included estimates of costs, identification of sources of funds, and financial statements.

In 1978, the Commission issued its seminal *Seabrook* decision, which included an extensive discussion of the financial qualifications review. The Commission explained that “the ‘reasonable assurance’ concept embodied in the regulation is more flexible than many of the Commission’s safety criteria,” and “does not normally contemplate refined analyses of an applicant’s likely future ability to meet specific costs.”¹⁰

The Commission found that the utilities seeking the Seabrook construction permit were financially qualified to receive it (a finding that was later affirmed on appeal).¹¹ In addition, the Commission indicated that the case raised general questions about the relationship between financial qualifications and safety and about how the status of an applicant as a public utility bears on that relationship. The Commission directed the staff to initiate a rulemaking proceeding “in which the factual, legal, and policy aspects of the financial qualifications issue may be reexamined.”¹²

Elimination of Financial Qualifications Review for Electric Utility Operators

As a result of the Commission-directed reexamination of the financial qualifications status of public utilities, the staff prepared SECY-79-299, “Generic Issue of Financial Qualifications: Licensing of Production and Utilization Facilities,” dated April 27, 1979. The staff recommended amending the regulations to provide that an electric utility applicant:

(1) whose rates for service are determined by state and/or federal regulatory agencies (or are self-determined), and (2) whose most senior long-term debt is rated “A” or higher by both of the major securities rating services would be deemed financially qualified for a construction permit. An applicant that satisfies the first criterion (rate-setting) would be deemed financially qualified for an operating license. Applicants satisfying the specified criteria for either a construction permit or an operating license would not be subject to extensive financial qualifications reviews by the staff. Further inquiry and adjudication of an applicant's or a licensee's financial qualifications would be foreclosed after the Commission determines that compliance with the criteria has been demonstrated.¹³

¹⁰ CLI-78-1, 7 NRC at 9-10 (1978).

¹¹ *New England Coalition on Nuclear Pollution v. NRC*, 582 F.2d 87 (1st Cir.1978).

¹² *Seabrook*, CLI-78-1, 7 NRC at 20.

¹³ SECY-79-299, Generic Issue of Financial Qualifications: Licensing of Production and Utilization Facilities, p. 10. (Apr. 27, 1979) (ML12236A723).

On August 18, 1981, the Commission published a notice of proposed rulemaking stating it was considering eliminating financial qualifications review for electric utilities for both construction permits (regardless of the ratings given their bonds) and operating licenses (with the possible exception of retaining financial qualifications review with respect to decommissioning costs).¹⁴ In the statement of consideration for this proposed rule, the Commission stated its belief that “its existing financial qualifications review has done little to identify substantial health and safety concerns at nuclear power plants.”¹⁵ The Commission adopted this proposal as its final rule.¹⁶ It was also recognized that the financial qualifications of an electric utility are presumed because they have access to rate-based revenues.¹⁷

Following publication of the final rule, the New England Coalition on Nuclear Pollution and others filed a petition for review in Federal court. The DC Circuit Court granted the petition and remanded the rule for further proceedings.¹⁸

In response, the Commission published a new proposed rule “Elimination of Review of Financial Qualifications of Electric Utilities in Operating License Reviews and Hearings for Nuclear Power Plants” and again invited public comment.¹⁹ In the new proposed rule, the Commission questioned the nexus between financial qualifications reviews and safety and invited “all interested parties to comment on whether financial qualifications review might be eliminated completely for all license or permit applicants including, but not limited to, electric utilities, on the ground that no link has been shown between financial qualification reviews and assurance of safety.”²⁰ The Commission went on to say that its:

¹⁴ “Financial Qualifications; Domestic Licensing of Production and Utilization Facilities,” 46 Fed. Reg. 41786 (Aug. 18, 1981).

¹⁵ “Financial Qualifications; Domestic Licensing of Production and Utilization Facilities,” 46 Fed. Reg. 41786 (Aug. 18, 1981).

¹⁶ “Elimination of Review of Financial Qualifications of Electric Utilities in Licensing Hearings for Nuclear Power Plants,” 47 Fed. Reg. 13750 (Mar. 31, 1982).

¹⁷ 46 Fed. Reg. at 41788.

¹⁸ *New England Coalition on Nuclear Pollution v. NRC*, 727 F.2d 1127 (D.C. Cir. 1984). The court stated: In its notice of proposed rulemaking, the Commission had based its proposal on two premises: “first, that regulated utilities (or those able to set their own rates) will be able to meet the costs for safe construction and operation of a nuclear power production or utilization facility” through the ratemaking process and, second, “that there was no demonstrated relationship between financial qualifications and safety, direct inspection and enforcement being a more effective means of achieving the latter goal.” In the statement of basis and purpose accompanying the rule, “the Commission chose to abandon, rather than defend, the first premise of its proposed rule..... [T]hat premise was essential because it explained why public utilities could reasonably be treated differently, which was the whole object of the rule.” *New England Coalition*, 727 F.2d at 1130. (Internal citations omitted).

¹⁹ “Elimination of Review of Financial Qualifications of Electric Utilities in Operating License Reviews and Hearings for Nuclear Power Plants,” 49 Fed. Reg. 13044 (Apr. 2, 1984).

²⁰ *Id.* at 13045–13046.

experience leads it to question whether pre-licensing reviews of applicants' future ability to pay for the cost of safety measures provide any significant additional assurance of safety beyond the assurance provided by the pre-licensing review of facility structures, systems, and components, operating and materials handling procedures, and technical qualifications, and by the Commission's inspection and enforcement program. However, the Commission has not conducted any detailed study to determine if there exists any significant correlation between its financial qualifications reviews and later safe operation and use of nuclear materials. Therefore, the Commission does not propose such a rule at this time, but it might consider doing so later if there is adequate support.²¹

Following the notice and comment period, the Commission amended the regulations to eliminate the financial qualifications review for electric utility applicants for operating licenses, while leaving intact the financial qualifications review for both electric utilities and merchant plants seeking construction permits.

Merchant Plant Financial Qualifications in Response to Restructuring

The staff addressed the issue of merchant plant financial qualifications in SECY-97-253, "Policy Options for Nuclear Power Reactor Financial Qualifications in Response to Restructuring of the Electric Utility Industry," in which it recommended rulemaking to enhance the financial qualifications reviews for merchant plant applicants. In that paper, the staff stated that the "NRC also has viewed the determination of licensee financial qualifications for plant operations as being of secondary importance as a means of ensuring the protection of public health and safety."²² The staff expressed concern that industry restructuring and the loss of "natural monopoly" status by electric utility generators, as defined by 10 CFR 50.2, "Definitions," might affect whether power reactor licensees would continue to be able to provide necessary funds for to operate and decommission their nuclear plants safely.

²¹ "Elimination of Review of Financial Qualifications of Electric Utilities in Operating License Reviews and Hearings for Nuclear Power Plants," 49 Fed. Reg. 13044 (Apr. 2, 1984). The statement of consideration on the question of the safety nexus to financial qualification reviews included two additional Commissioner views. First, Commissioner Frederick M. Bernthal stated that "[a]s a general policy matter, I have always questioned whether the NRC has the necessary resources and expertise to justify its involvement in assessing financial qualifications of applicants.... However, denying a license for lack of financial qualifications in this context means that the Commission would be prejudging the ability of applicant to construct and operate the plant consistent with public health and safety; the Commission would be denying a license because of *the possibility* that the applicant might cut corners on safety.... I question whether the Commission should require any financial review *unless* there is an independent concern about the management integrity of an applicant." Next, Commissioner Asselstine stated "that he does not believe that the Commission now has sufficient documented evidence to support a final rule to exclude financial qualification reviews at the operating license stage" See 49 Fed. Reg. 13046 (Apr. 2, 1984). (Emphasis in the original).

²² SECY-97-253, SECY-97-253 – Policy Options For Nuclear Power Reactor Financial Qualifications In Response To Restructuring of the Electric Utility Industry, p. B-2, (Oct. 24, 1997) (ML12263A738).

The staff also recommended that the NRC should continue to distinguish between electric utilities and non-electric utilities.

In SRM-SECY-97-253, the Commission did not provide “the necessary majority for the staff to proceed with a proposed rulemaking Therefore, the NRC’s existing regulatory framework ... [was] maintained.” Maintaining that framework preserved the distinction between electric utilities and merchant plants.

Financial Qualifications for License Renewals

In a 2004 rulemaking, which discontinued financial qualification reviews for power reactors at the license renewal stage except in very limited circumstances, the Commission stated that “[t]he NRC performs financial qualifications reviews during initial licensing because the startup of a nuclear power reactor is a major financial undertaking that has significant implications for a company’s financial health....these reviews form part of the licensing basis that the licensee must maintain for the 40 year term of the initial license and for any license renewal period.”²³

However, in that same statement of consideration, the Commission stated that “[t]he NRC believes that its primary tool for evaluating and ensuring safe operations at nuclear power reactors is through its inspection and enforcement programs....”²⁴ Further, the Commission stated that “[t]he NRC has not found a consistent correlation between licensees’ poor financial health and poor safety performance. If a licensee postpones inspections and repairs that are subject to NRC oversight, the NRC has the authority to shut down the reactor or take other appropriate action if there is a safety issue.”²⁵

Merchant Plant Financial Qualification Reviews for Advanced Reactors

In the context of modular plant licensing, merchant plant licensing, and high-temperature gas reactor licensing, the staff addressed financial qualification reviews for merchant plants in SECY-02-0180, “Legal and Financial Policy Issues Associated with Licensing New Nuclear Power Plants.” In its discussion, the staff reiterated that the Commission “has the authority to determine by regulation that a given class of non-electric-utility applicants for nuclear power plant licenses shall not be required to submit financial qualifications information.” However, the staff went on to say that “the staff has not identified a reasonable basis for establishing such a class of applicants. The staff recommends that non-electric-utility applicants continue to be required to submit financial qualifications information in accordance with 10 CFR 50.33(f).”

In SECY-02-0180, the staff considered whether the financial qualification requirements should be retained for non-electric utility applicants. The staff stated that:

²³ “Financial Information Requirements for Applications to Renew or Extend the Term of an Operating License for a Power Reactor,” 69 Fed. Reg. 4439 (Jan. 30, 2004).

²⁴ *Id.* at 4442.

²⁵ *Id.* at 4443.

[n]onutilities face more competition in the marketplace than utilities and are not guaranteed a return by a State public service commission. The financial information required to fulfill 10 CFR 50.33(f) is information that the applicant will have at its disposal. The NRC seeks to review financial information in order to have reasonable assurance that the facility will have the resources to operate safely. The staff believes it is premature to categorize any applicant as having reasonable assurance before examining such assets or parental guarantees.²⁶

The staff made its recommendation because “the staff [had] not identified a reasonable basis for establishing such a class of applicants [of non-utility applicants exempt from submitting financial qualifications information].”²⁷

In SRM-SECY-02-0180, the Commission accepted the staff’s recommendation and retained the requirement that merchant plant applicants submit financial qualifications information in accordance with 10 CFR 50.33(f).

While the staff has not denied an applicant an initial license or license transfer because of financial qualifications deficiencies, the staff has asked questions about the financial information submitted in their applications. There have been previous instances in which the staff required license transfer applicants to provide additional financial support before the transfer request was approved. This additional support took the form of draft financial support agreements which, upon staff review and approval, were incorporated as conditions to the license transfer.²⁸

²⁶ SECY-02-0180, SECY-02-0180 – Legal and Financial Policy Issues Associated with Licensing New Nuclear Power Plants, p. 3, (Oct. 7, 2002) (ML022130093).

²⁷ *Id.*

²⁸ The NRC staff has previously made only three findings of reasonable assurance of financial qualifications for plants with a negative income statement as part of an indirect license transfer. The first finding is summarized in the April 11, 2008, Safety Evaluation for an indirect transfer of control and related to a restructuring of Entergy Corporation (ADAMS Accession No. ML080920596) addressed a negative net income statement for Vermont Yankee Nuclear Power Station (VY). The NRC staff found VY financially qualified, based in part on additional financial arrangements provided by Support Agreements put in place by Entergy Corporation, the parent company of VY, and access to a line of credit. The second finding is summarized in the October 30, 2009, Safety Evaluation for direct and indirect transfers of control and related to corporate restructuring and EDF Inc.’s acquisition of a 49.99-percent ownership interest in Constellation Energy Nuclear Group, LLC (CENG) (ADAMS Accession No. ML093010003); it addressed a negative net income statement for R.E. Ginna Nuclear Power Plant (Ginna). The NRC staff found Ginna financially qualified, based in part on additional financial arrangements provided by Support Agreements from Constellation Energy Group, Inc. and E.D.F. International SAS (EDFI), and a Master Demand Note. The third finding is summarized in the February 15, 2012, Safety Evaluation for the indirect transfer of control and related to a merger between Exelon Corporation and Constellation Energy Group, Inc. (ADAMS Accession No. ML113560408); it addressed a negative net income statement for Ginna. The NRC staff found Ginna financially qualified, based in part on financial arrangements provided by a revised support agreement to specify the agreement between Exelon Generation and the CENG subsidiary licensees, in addition to the support agreement when combined with the EDFI support agreement and the master demand note.

Commission history and precedent has consistently shown an ongoing concern for the potential of degraded safety in the face of degraded financial qualifications. However, this history also consistently indicates a Commission belief that any nexus between safety and the NRC's review of financial qualifications is indirect and of secondary importance to ensuring public health and safety. Furthermore, it is clear that Section 182a. of the AEA grants the Commission much flexibility in the arena of financial qualifications requirements.

Given the number of merchant plant COL applications currently under review, as well as the potential for new small modular reactor (SMR) merchant plant applicants, the staff believes financial qualifications requirements for initial licensing merit consideration by the Commission.²⁹ This paper presents options for Commission consideration for use in such future new reactor licensing decisions. One option, advocated by NINA/NEI, but not listed as an option in this paper, is the use of a license condition in the absence of any identified sources of funds.

License Conditions

License conditions have historically been used as part of licensing, and there is Commission precedent to that effect in the context of financial qualification reviews. In the PFS and LES cases,³⁰ license conditions were used to meet the financial qualifications requirements. However the Commission suggested that the types of conditions used in those cases would not be appropriate for reactor licensing. Specifically, the Commission stated that its decision was "outside the reactor context" and that the Commission would "not require such applicants [as PFS] to meet the detailed Part 50 requirements."³¹

In contrast to the general language of the 10 CFR Part 70 financial qualification regulations, the 10 CFR Part 50 financial qualification regulations are far more detailed and comprehensive. They contain several paragraphs of requirements. They require every applicant at the construction stage to submit financial information demonstrating that it actually "possesses or has reasonable assurance of obtaining the funds necessary to cover estimated construction costs and related fuel cycle costs."³²

The standard review plan for financial qualifications determinations allows for the use of license conditions under the current 10 CFR Part 50 financial qualifications regime. NUREG-1577, "Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance," Revision 1, states that, "[i]f the reviewer determines that

²⁹ Additionally, the staff has previously stated that, "[i]f the staff determines that the existing regulatory framework becomes ineffective or inefficient in addressing operational financial qualifications in the context of rate deregulation, it will inform the Commission and recommend approaches for the Commission's consideration." See SECY-98-153 at 6.

³⁰ *Louisiana Energy Services, LP* (Claiborne Enrichment Center), CLI-97-15, 46 NRC 294, 299-300 (1997); and *Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), CLI-00-13, 52 NRC 23, 29-30 (2000).

³¹ *Private Fuel Storage, LLC*, CLI-00-13, 52 NRC at 30.

³² 10 CFR 50.33(f)(1).

a license applicant does not meet these financial qualification standards, he or she will either deny issuance or transfer of the OL, *condition the OL*, or recommend initiation of other regulatory action to mitigate financial qualifications concerns.”³³ (Emphasis added).

Under the current regulations, it may be theoretically possible to craft a license condition in the absence of any identified sources of funds that would satisfy the requirements for an appropriate license condition, but resolving the details would be significantly legally and technically challenging so as to render this approach infeasible. The industry has submitted a proposed generic license condition. The staff’s analysis of this license condition is contained in [Enclosure 2](#).³⁴

The Commission must be able to make the findings in 10 CFR 52.97, “Issuance of Combined Licenses,” before issuing the COL. As a legal matter, any such conditions imposed under 10 CFR 52.97(c) must be specific enough so that determination of whether they are satisfied is a ministerial act.³⁵ Thus, any license condition imposed could not require a submittal for staff review and approval. Section 185b. requires all safety findings to be made before COL issuance, which would manifestly not be done if there was a condition to submit the substantive basis for determining financial qualifications later. Similarly, Commission precedent states that it is unacceptable to have issues material to licensing deferred, even with another hearing opportunity. The Commission stated that all issues material to licensing had to be resolved at initial licensing—not delayed until later.³⁶ It does not appear feasible to develop a viable license condition which would both demonstrate compliance with the current requirements of 10 CFR Part 50, Appendix C, and whose satisfaction could be shown by ministerial act.

Crafting an acceptable license condition, under the current regulations, becomes even more challenging when “newly formed entities” are the merchant plant applicants.³⁷ As discussed above, Appendix C of 10 CFR Part 50 was added to the NRC regulations in 1968.³⁸ This appendix was added to, among other considerations, require more detailed financial information for “newly formed entities.” The statement of consideration for Appendix C stated that “[w]ithout limitation on the generality of the foregoing requirements, each application for a construction permit or an operating license submitted by an *entity organized for the primary purpose of*

³³ NUREG-1577 at 10.

³⁴ A list of references is included in [Enclosure 3](#).

³⁵ “[W]e must insist that the condition be precisely drawn so that the verification of compliance becomes a largely ministerial act rather than an adjudicatory act – that is, the Staff verification efforts should be able to verify compliance without having to make overly complex judgments ...” (*Private Fuel Storage, LLC*, CLI-00-13, 52 NRC at 34).

³⁶ *Hydro Resources, Inc.* (Albuquerque, NM), CLI-00-08, 51 NRC 227 (2000).

³⁷ Currently, the NRC is reviewing COL applications from several “newly formed entities” including UniStar Nuclear Energy (Calvert Cliffs Unit 3), and Nuclear Innovation North America LLC (South Texas Project, Units 3 & 4).

³⁸ “Part 50-Licensing of Production and Utilization Facilities,” 33 Fed. Reg. 9704 (July 4, 1968).

constructing or operating a facility shall include information showing the legal and financial relationships it has or proposes to have with its stockholders or owners, and their financial ability to meet any contractual obligation to such entity which they have incurred or propose to incur, and any other information necessary to enable the Commission to determine the applicant's financial qualifications.”³⁹ (Emphasis added to define “newly formed entity”).

In its present form, 10 CFR Part 50, Appendix C, states that, because newly formed entities have “little or no prior operating history, somewhat more detailed data and supporting documentation will generally be necessary [to demonstrate financial qualifications].” This “more detailed data and supporting documentation” includes an estimate of construction costs and the source of the funds to support those costs. Appendix C requires that these applicants “specifically identify the source or sources upon which the applicant relies for the funds necessary to pay the cost of constructing the facility, and the amount to be obtained from each.”

Further, this specificity is documented with “copies of agreements or contracts” for all the companies contributing to the funding plan.⁴⁰

For those applicants described above with insufficient or no identified sources of funding, it may be difficult to prepare an acceptable license condition containing the level of financial information detail required by Appendix C that can be satisfied by operation of a ministerial act given those applicants’ lack of identified sources of funds and the attendant documentation for such sources.

The staff has carefully reviewed the NEI proposal for a generic COL financial qualifications license condition and, as further described in [Enclosure 2](#), does not believe this proposed condition meets the current regulations.

OPTIONS:

The options described below discuss licensing approaches for addressing financial qualifications for merchant plant applicants.

Option 1—Status Quo: No Changes to 10 CFR Part 50 or Appendix C to Part 50 and Current Initial Licensing Process

The status quo option would result in no changes to the financial qualifications demonstration requirements in 10 CFR Parts 50 and 52. Under this option, no additional NRC resources would be expended at this time to address merchant plant applicant financial qualifications. Selection of this option would retain the current requirement to submit information that some staff members have argued is relevant and needed to ensure protection of public health and safety.

³⁹ “Part 50-Licensing of Production and Utilization Facilities,” 33 Fed. Reg. 9704 (July 4, 1968).

⁴⁰ 10 CFR Part 50, Appendix C, Section II(A).

The current financial qualifications demonstration review process is consistent with the AEA and Commission precedent. In appropriate circumstances, license conditions are permitted under the current regulations.⁴¹ Exemptions also are permitted when properly justified under the requirements of 10 CFR 50.12, "Specific Exemptions."

Continuing the status quo does not, per se, preclude all merchant plant applications. Rather, it requires merchant plant applicants, including those with no identified funding sources, to meet current requirements. While some have asserted that it is impossible for merchant applicants to obtain sufficient funding before a license is issued, and thus impossible to meet the current regulations, at the time the current merchant plants were docketed, they all had identified some sources of funds.

Evolving energy markets have affected this proposed funding as the applications have been under review.⁴²

Pros and Cons

The status quo provides that a license will be issued only when the COL applicant(s), "possesses or has reasonable assurance of obtaining the funds necessary to cover estimated construction costs and related fuel cycle costs" ... as well as "estimated operation costs for the period of the license."⁴³ Additionally, this option will ensure that COLs are only issued when the detailed requirements of Appendix C are met, which is particularly relevant for newly formed entities. If the NRC believes that the current financial qualifications determination requirements are sound and support the NRC's mission, then those applicants that cannot meet financial qualifications determination requirements are justifiably denied a license.

The primary advantage to this option is that it would allow the NRC to continue to make financial qualifications determinations based on facts instead of speculating about future financing. Further, the status quo would require minimal additional resources.

⁴¹ License conditions may be used to meet financial qualifications under the current regulations. The 10 CFR 50.33, "Contents of Applications; General Information," provisions require that an applicant must provide a plan indicating their method for providing reasonable assurance. The requirements are not prescriptive, in that an applicant does not necessarily need to provide evidence of a firm financial commitment. Rather, reasonable assurance may be achieved, depending on the particular facts, by presentation of commitment letters for equity contributions to the project, a purchase power agreement for the power offtake or some combination of such items. License conditions would then be used to 1) verify final executed financial documents when draft documents have been used as the financial qualifications bases; and 2) verify the existence of additional documentation required by the proposed financial plan.

⁴² See Calvert Cliffs, Unit 3, COL Application, Part 1: General Information, p.8 of 44 (Mar. 14, 2008) (ML081020911); Comanche Peak Units 3 and 4, COL Application, Part 1, p.12 of 34 (Sept. 19, 2008) (ML082681092); Nine Mile Point, Unit 3, COL Application, Part 1, p. 14 of 50 (Sept. 30, 2008) (ML082900641); and South Texas Project, Units 3 & 4, COL Application, Part 1, p.9 of 30 (Sept. 24, 2008) (ML082830951).

⁴³ 10 CFR 50.33(f)(1)-(3).

The primary disadvantage of the status quo is that this option may result in the denial of licenses for reasons that are not necessary for ensuring public health and safety, in light of the NRC's many other mechanisms for ensuring safe plant operation. Since 10 CFR 50.33(f) requires applicants to identify sources of funding for construction and operation, some applicants may not meet the financial qualification requirements and, thus would not receive licenses based, perhaps solely, on financial qualification considerations.

Additionally, the current approach appears to negate the usefulness of the pre-licensing financial qualifications determination review for those COL-holders who choose to "bank" their licenses for an indeterminate timeframe before beginning construction. Regulations in 10 CFR 52.104, "Duration of Combined License," state that a COL is "issued for a specified period not to exceed 40 years from the date on which the Commission makes a finding that acceptance criteria are met under 52.103(g) or allowing operation during an interim period under the combined license under 52.103(c)." A COL-holder is not required to begin construction at a set time and could defer construction for an indeterminate length of time. Since, pursuant to 10 CFR 52.104, the 40-year clock does not start until plant operation begins, the pre-license financial qualifications determination review might be completely irrelevant and inapt when construction actually commences, or as construction proceeds. The status quo option would not, under this scenario, serve the intended function of assuring the level of financing expected by the current regulations. However, if the status quo option is selected, the Commission might consider setting, by license condition, an expiration date on unexecuted COLs or, alternatively, providing for a post licensing, preconstruction confirmation of financial qualifications.⁴⁴ A license condition to provide for post licensing, preconstruction confirmation of financial qualifications would not encounter the same difficulties as discussed above with the NEI proposed license condition since all of the detailed financial information, and the corresponding NRC review of that information, would have been completed at the licensing stage. The condition would simply verify that the information that had previously been provided continued to be valid.

Either of these status quo reforms would provide additional assurance that a licensee's financial qualifications at the time of construction remains viable.

Option 2—Rulemaking (Recommended Staff Option)

As stated elsewhere in this paper, the Commission has the statutory authority to revise or reform financial qualifications reviews requirements as it "may deem appropriate for the license." In the 57 years since the initial promulgation of the financial qualifications demonstration rules, there does not appear to have been a clear demonstration of a direct relationship between the financial qualifications demonstration and plant safety. To the extent that such a nexus does exist, it has been characterized as indirect.⁴⁵

⁴⁴ Such a condition would not be necessary for Part 50 CP applicants, since a CP does expire, and thus does not allow for indefinite deferral of construction.

⁴⁵ SECY-79-299, Generic Issue of Financial Qualifications: Licensing of Production and Utilization Facilities, p. 10, (Apr. 27, 1979) (ML12236A723).

The staff recommendation is to engage in a rulemaking effort to amend or rescind the 10 CFR Part 50 financial qualifications demonstration requirements. Such an effort would involve stakeholder interactions to develop a detailed regulatory and technical basis for any revisions to the NRC's financial qualifications demonstration requirements. Approaches that a rulemaking effort might take are summarized below. A detailed discussion of these approaches is included as [Enclosure 4](#).

Approach A: Rulemaking to Rescind Financial Qualification Requirements for Initial Licensing

This approach would rescind the financial qualification requirements for initial licensing. The financial qualifications requirements have always been viewed as an additional indirect method of ensuring safety. However, since these requirements were initially promulgated the NRC's programs and processes for ensuring safe plant operation have matured and become more robust. The current direct regulatory methods provide a vigorous framework for ensuring the safe operation of all plants – utilities and merchant plants alike.

The current regulatory framework distinguishes between electric utilities and merchant plants. Current regulations impose a significantly heavier burden on merchant plants to demonstrate financial qualifications. The reasoning is that utilities recover money through rate setting, and thus do not face the same type of financial pressures as merchant plants, presumably reducing the disincentives that such financial pressure might be assumed to create with respect to spending money on ensuring safety. While it is certainly true that nuclear plant operators may choose not to spend money on safety measures, there is no evidence to support the idea that nuclear plant operators choose not to spend money on safety measures because they are short on funds. In particular, there is no evidence to support the notion that electric utilities, with guaranteed rate recovery, are more likely to spend money on safety measures.

Thus, as further discussed in [Enclosure 4](#), one option for the Commission is to rescind the financial qualification requirements for initial licensing in light of the lack of evidence to support the efficacy of our current financial qualification requirements, the robustness of our other methods for ensuring safety, the potential barriers to licensing, and the questionable usefulness of initial financial qualifications information given that an applicant's financial arrangements may change before construction is initiated. This is consistent with executive orders suggesting that regulations be made more effective and less burdensome while still achieving regulatory objectives.

Approach B: Rulemaking to Amend Financial Qualifications to an Ongoing Oversight Indicator

Using this rulemaking approach, the NRC would no longer conduct financial qualifications reviews as a component of an initial licensing decision. Instead, the staff would conduct activities to monitor the overall financial health of the licensee as an ongoing process over the construction and operating life of the plant. Relying on such post-license monitoring as the sole financial review would be a new mechanism of oversight.⁴⁶

⁴⁶ Under the current financial qualifications rules, the NRC may request, post-license and, on a case-by-case basis, "information regarding a licensee's ability to continue the conduct of the activities authorized by the license and to decommission the facility". (10 CFR 50.33(f)(5)).

In this approach, indicators of financial distress would result in licensee engagement to explore whether the licensee's financial distress has any implications for safe construction or operation. Certain measures could be set forth in staff guidance. Additionally, there could be dialogue between NRC financial reviewers, NRC regional offices, and licensees, as appropriate, to ensure the staff is aware of any licensees experiencing financial distress. This approach is further explored in [Enclosure 4](#).

Approach C: Rulemaking to Conform Reactor Financial Qualification Requirements to 10 CFR Part 70 Standards

Under this rulemaking approach, the staff would amend the 10 CFR Part 50 financial qualifications regulations to remove the detailed requirements found in Appendix C and change the pre-licensing standard of financial qualifications review to one that would allow licensing based on a less-detailed financial plan. This approach would facilitate the use of license conditions similar to those previously found acceptable by the Commission in nonreactor contexts.

If, under this rulemaking approach, the requirement in Appendix C of 10 CFR Part 50 for detailed submittal of financial information was removed and the Part 50 financial qualifications regulatory language was conformed to the 10 CFR Part 70 financial qualifications review standard, legally viable license conditions would be possible for those applicants with no identified pre-licensing sources of funds. License conditions, which would be ministerial in nature, could then be used to ensure that the plan was executed prior to beginning construction.

RECOMMENDATION:

Reviewing the financial qualifications of reactor applicants has been part of the NRC's regulatory regime since 1956. Over these decades, changes have been made as circumstances warranted. Most notably, the Commission rescinded the review of financial qualifications for electric utilities when the Commission believed, for reasons discussed above, that such a review was "excessive for a significant portion of NRC's utility applicants".⁴⁷

The advent of merchant plant initial license applicants represents another change that warrants Commission consideration. The question of whether financial qualification reviews are relevant and necessary for merchant plant generators has been periodically considered by the staff and the Commission for over 20 years. The current situation is distinct from past considerations because of the emergence of those applicants with insufficient or no identified sources of funding. Further, this issue is exacerbated by the ability of COL holders to "bank" their licenses for an indeterminate length of time before beginning construction. The longer the time from initial license issuance to commencement of construction, the less relevant the pre-licensing financial qualifications review will be when construction actually begins.

⁴⁷ SECY-79-299, Generic Issue of Financial Qualifications: Licensing of Production and Utilization Facilities, Enclosure 7(A), (Apr. 27, 1979) (ML12236A723).

Therefore, the staff recommends that the Commission authorize the staff to begin a rulemaking effort to implement some variant of Option 2 as discussed above. This option would allow the staff to engage in a rulemaking effort to amend or rescind, as appropriate, the financial qualification regulations for initial license issuance thereby resolving the industry-asserted impediment to licensing which currently exists for some merchant plant applicants.

RESOURCES:

If the staff recommendation is chosen by the Commission, a rulemaking will commence. There are no resources currently budgeted for a rulemaking on this topic. The staff will utilize the Planning, Budgeting, and Performance Management (PBPM) process to obtain the required resources to implement Commission direction on this issue. A detailed breakdown of estimated resources for current and future years is provided in Enclosure 5.

COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objection. The Office of the Chief Financial Officer has reviewed the rulemaking option in this paper for resource implications and has no objections.

/RA/

Mark A. Satorius
Executive Director
for Operations

Enclosures:

1. [NCP-2013-002, Non-concurrence: "Policy Options for Merchant Plant Financial Qualifications"](#)
2. [Analysis of NEI License Condition Proposal](#)
3. [References](#)
4. [Detailed Discussion of Option 2 Approaches](#)
5. Resource Estimate (Non-Public – Predecisional Information)

Non-Concurrence Process Record for NCP-2013-002

The U.S. Nuclear Regulatory Commission (NRC) strives to establish and maintain an environment that encourages all employees to promptly raise concerns and differing views without fear of reprisal and to promote methods for raising concerns that will enhance a strong safety culture and support the agency's mission.

Individuals are expected to discuss their views and concerns with their immediate supervisors on a regular, ongoing basis. If informal discussions do not resolve concerns, individuals have various mechanisms for expressing and having their concerns and differing views heard and considered by management.

Management Directive MD 10.158, "NRC Non-Concurrence Process," describes the Non-Concurrence Process (NCP). <http://pbadupws.nrc.gov/docs/ML0706/ML070660506.pdf>

The NCP allows employees to document their differing views and concerns early in the decision-making process, have them responded to, and attach them to proposed documents moving through the management approval chain.

NRC Form 757, Non-Concurrence Process is used to document the process.

Section A of the form includes the personal opinions, views, and concerns of an NRC employee.

Section B of the form includes the personal opinions and views of the NRC employee's immediate supervisor.

Section C of the form includes the agency's evaluation of the concerns and the agency's final position and outcome.

NOTE: Content in Sections A and B reflects personal opinions and views and does not represent official factual representation of the issues, nor official rationale for the agency decision. Section C includes the agency's official position on the facts, issues, and rationale for the final decision.

The agency's official position (i.e., the document that was the subject of the non-concurrence) is included in ADAMS Accession Number ML13057A006.

This record has been reviewed for redactions and can be released to the public.

NON-CONCURRENCE PROCESS

NCP TRACKING NUMBER
NCP-2013-002

SECTION A - TO BE COMPLETED BY NON-CONCURRING INDIVIDUAL

TITLE OF SUBJECT DOCUMENT
POLICY OPTIONS FOR MERCHANT PLANT FINANCIAL QUALIFICATIONS

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ML 3057A006

DOCUMENT SIGNER
R.W. Borchardt

SIGNER PHONE NO.

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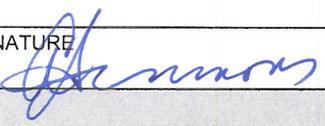
DOCUMENT AUTHOR DOCUMENT CONTRIBUTOR DOCUMENT REVIEWER ON CONCURRENCE

REASONS FOR NON-CONCURRENCE AND PROPOSED ALTERNATIVES

See Attachment A.

*Non-concurred via email.

CONTINUED IN SECTION D

SIGNATURE


DATE
5/13/2013

SEE SECTION E FOR IMPLEMENTATION GUIDANCE

Introduction

The NRR financial staff questions whether the Commission needs to revise its existing policies regarding merchant plant financial qualifications, especially if these revisions come at the expense of honoring the Commission's statutory obligations. The proposals outlined "Policy Options for Merchant Plant Financial Qualifications" go well beyond the industry's initial proposal to modify the timing of financial reviews and instead, propose the elimination of financial qualifications entirely from the licensing basis. The NRR financial staff does not agree that the rulemaking options presented in SECY are prudent, justified or consistent with the NRC's mission to protect public health and safety, for the reasons outlined below. The NRR financial staff reiterates its position that merchant plant licensees require additional financial scrutiny reflected in the current regulatory framework due to their higher risks. The existing rules, regulations, policies and practices provide sufficient flexibility to the NRR financial staff to address various financing arrangements proposed by COL applicants, and license transferees.

The proposed rulemaking option is inconsistent NRC's statutory responsibilities and provides no basis for a departure from current policy.

The NRC has recognized the higher financial risk posed by merchant plant licensees because of the lack of direct state public utility commission oversight, and the inability to use rate-based tariffs granted to utility licensees as a source of funds.

The most recent NRC position on financial qualifications was published in a 2004 final rule regarding financial information required for license renewal.¹ A basis for this rulemaking was that the NRC financial oversight process, including formal reviews at initial licensing and license transfers, as well as monitoring of the financial health of licensees was "sufficient to ensure that the NRC can take timely regulatory action to ensure public health and safety."

In the 2004 final rule, the NRC further articulated the basis of financial qualifications reviews at initial licensing.

"The NRC performs financial qualifications reviews during initial licensing because the startup of a nuclear power reactor is a major financial undertaking that has significant implications for a company's financial health....These reviews form part of the licensing basis that the licensee must maintain for the 40-year term of the initial license and for any license renewal period."²

The NRC also articulated the importance of the regulatory framework for financial qualifications.

"The resulting process for oversight of financial qualifications is sufficient to ensure that the NRC has adequate warning of adverse financial impacts so that the NRC can take timely regulatory action to ensure public health and safety and the common defense and security. The resulting process has two components: (1) A formal review of major triggering events, and (2) monitoring of financial health between the formal reviews due at the "triggering events." The relevant triggering events are (1) initial operating license application, (2) license transfer, and (3) transition from an electric utility to a non-electric utility, either with or without transfer of control of the license. In addition, the NRC can

¹ Financial Information Requirements for Applications to Renew or Extend the Term of an Operating License for a Power Reactor; January 30, 2004. 69 FR 4439.

² Ibid.

review a licensee's financial qualifications at any point during the term of the license if there is evidence of a decline in the licensee's financial health."

Removing financial qualifications reviews from the licensing basis (Rulemaking Options A and B) would undermine the NRC's ability to identify, monitor and address risks related to financially stressed licensees.

Under the current regulations, financial qualifications reviews occur at initial licensing, license transfers, and as needed based on monitoring of financial reports and the trade press by the staff.

Removing NRC financial qualifications requirements from the licensing basis will undermine NRR staff's ability to monitor and address financially distressed licensees for operating reactors. For example, financial issues may be identified during license transfers. To comply with 10 CFR 50.80, the staff performs a financial review of the proposed transferee to ensure that it has sufficient financial resources to ensure safe operations. Since 2009, multiple license transfers involving merchant plants licensees have required licensees to provide additional financial support to demonstrate that merchant plant licensees have sufficient funds to cover operating expenses.³ Without a licensing basis, the NRR staff would have no regulatory authority to review, identify or mitigate financially troubled licensees or transferees. Further, the NRR staff would no longer have a regulatory basis to maintain existing financial support agreements implemented by license conditions for licensees. This would increase the risks to public health and safety. The Commission has stated, "Behind the financial qualifications rule is a safety rationale. A licensee in financially straightened circumstances would be under more pressure to commit safety violations or take safety "shortcuts" than one in good financial shape."⁴

Financial qualifications are part of an integrated set of regulatory requirements.

Financial qualifications reviews are linked to decommissioning funding assurance. The NRC staff acknowledged as much when it stated that: "[T]he loss of regulatory oversight as a potential consequence of industry restructuring is as relevant to NRC's financial qualification requirements as it is to NRC's decommissioning financial assurance requirements,"⁵ which required that merchant plants be held to the more stringent "pre-payment" or up-front financial assurance than utility licensees. Plants that might be experiencing difficulty in meeting operating expenses will also likely have problems meeting their decommissioning funding requirements.

Further, in 2004, the NRC explained to the GAO that financial qualifications reviews also assure compliance with Price Anderson: "While NRC does not conduct in-depth financial reviews specifically to determine licensees' ability to pay retrospective premiums, when a licensee applies for a license or when the license is transferred, NRC reviews the licensee's financial ability to safely operate the plant and to contribute decommissioning funds for the future retirement of the plant. According to NRC officials, if licensees have the financial resources to

³ These transfers include: EDF/Constellation (2009), Constellation/Exelon (2010) and Luminant/EFH (2012). Merchant licensees have also reported more projected decommissioning funding shortfalls than utility licensees. (SECY-09-0126).

⁴ Gulf States Power, 40 NRC 43, 48.

⁵ 63 FR 50465.

cover these two expenses, they are likely to be capable of paying their retrospective premiums.”⁶

Finally, the proposed elimination of financial qualifications from the NRC licensing process does not address how the NRC would address the potential risks of a licensee becoming insolvent.

The Commission’s existing financial qualifications already provide substantial flexibility to merchant applicants.

The current financial qualifications requirements require that the staff make a finding of reasonable assurance. The information required to be provided must reflect a plausible financing plan, and include sufficient information for the staff to complete its review. Based on the information provided by the applicant, such as an identified source of funds, the staff can develop license conditions to ensure that final financing documents are completed. The current requirements have sufficient flexibility to address a variety of funding and proposed funding mechanisms, including a combination of committed equity, debt, contracts, and other financing arrangements – all the components of project financed project.

The proposed rulemaking would replace a market-based determination with a regulatory determination.

The current financial qualification requirement at initial licensing provides reasonable assurance that an applicant will bear the burden of meeting financial qualifications. Market conditions largely determine project viability and financing prior to COL issuance (a market approach). Delaying the demonstration that the applicant meets financial qualifications requirements until after the COL is issued would shift the financial determination to the staff (a regulatory approach). The Commission should consider that a merchant applicant’s inability to demonstrate financial qualifications, despite the flexibility already accorded under the Commission’s current policies, could indicate a flaw in that particular merchant applicant’s business model rather than a regulatory barrier. However carefully the staff might review an applicant’s financial plan post-licensing, the fact remains that by the time it is filed, the applicants will have already completed their financial negotiations. It would be difficult for the staff to remedy regulatory financial concerns without additional delays. Requiring remedial measures to address financial qualifications concerns late in the process would delay projects, and may impact applicants’ ability to finalize financing. The desire to offer merchant plant developers still more flexibility does not override the statutory obligations under the Atomic Energy Act of 1954, as amended.

Eliminating or weakening financial qualifications requirements will not remedy merchant applicant financing issues.

As stated by the financial experts in the October 22, 2012 public meeting, there are many issues that make merchant plant financing difficult, the majority of which are beyond the scope of NRC authority, including high capital requirements, long construction periods and lack of revenue certainty.⁷ The NRC staff has not completed a financial qualifications review of a merchant COL applicant, so there is no data to substantiate that a lack of funding is based on NRC requirements, as opposed to other factors, such as lack of revenue at projected market prices.

⁶ GAO-04-654, 2004.

⁷ NERA Consulting Presentation, ML12279A175.

The current requirements are not prescriptive, and do not require that all funds be in hand prior to construction and operation.

Changing NRC requirements will not offset insufficient revenue to cover the costs of construction and operation if power prices are low. Further, it is unclear that merchant plants cannot obtain equity financing or financial commitments when market conditions favor nuclear power over other forms of energy. The Congressional Budget office stated in 2011 that a preliminary DOE loan guarantee was issued to the merchant applicant UniStar.⁸ This indicates that solutions to nuclear financing challenges may involve more than NRC requirements. For example, the FERC recently completed a year long process to develop a Policy Statement on Merchant Transmission and concluded that merchant transmission projects will require PPAs prior to participation to demonstrate their economic viability.

The Commission should balance financial qualifications requirements with impacts on public health and safety, costs to industry, and ability to enforce. Delaying a financial qualifications review until after licensing may permit the licensing of financially unsound companies.

Delaying a full financial qualifications review thru the use of a licensing condition may permit the licensing of financially unsound companies, contrary to Commission direction. As the Commission stated in CLI-00-04, “[This case] should not be interpreted, however, to hold thatthe Commission will grant a license to an applicant of dubious financial qualifications.”

Issuing a license to an applicant without a pre-licensing review may result in financially unsound companies receiving a license. Recently, the parent company of a COL applicant indicated that they were negotiating a pre-packaged Chapter 11 filing. Without a pre-licensing financial review, the staff would have no ability to identify such an applicant prior to licensing. A pre-licensing review allows the staff to identify financial issues early in the process and mitigate them or implement license conditions based on the documented facts and circumstances to make a determination regarding their ability to construct and operate a reactor.

If the Commission decides to revise its existing policies applicable to new merchant transmission projects, it should consider maintaining financial qualifications in the NRC licensing basis.

One way that the timing of a financial qualifications review could be changed would be to amend the rules to reflect the two part showing of financial qualifications, similar to the way DFA for new reactors is handled per 10 CFR 50.75. The applicant would need to submit a certification that they will 1) obtain adequate financing of construction and operating costs prior to the start of construction, and that 2) the funding will comply with the restrictions against foreign ownership, control or domination of 10 CFR 50.38. Then, following issuance of the COL, but prior to the start of construction, the applicant would have to demonstrate that adequate funding had been obtained. Note that if this option is considered, the Commission may have to modify its policy regarding license conditions. The policy expects that the post-licensing review should be “ministerial.” However, the review of the licensee’s demonstration would have to be as comprehensive as the review now done before the license is issued, since it would be the first time the NRC would review the financial qualifications. Although this option would maintain financial qualifications in the licensing basis, and ensure that the staff had the ability to identify and mitigate financial distress in licensees, self-certification of financial qualifications would introduce additional problems. For example, this approach may not be sufficient to identify and

⁸ <http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/122xx/doc12238/08-03-nuclearloans.pdf>

screen financially unsound applicants. Merchant plants with no sources of funds would not be able to self-certify.

Conclusion

The NRR financial staff recommends that the Commission maintain the present regulations regarding financial qualifications. If the Commission decides to revise its existing policies applicable to new merchant transmission projects, however, it should do so in a manner that does not compromise public health and safety.

NON-CONCURRENCE PROCESS

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POLICY OPTIONS FOR MERCHANT PLANT FINANCIAL QUALIFICATIONS

ADAMS ACCESSION NO.

SECTION B - TO BE COMPLETED BY NON-CONCURRING INDIVIDUAL'S SUPERVISOR

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COMMENTS FOR THE NCP REVIEWER TO CONSIDER

The principle concerns of the non-concurring staff focus on the "Recommended Staff Option ; Option 2 – Rulemaking proposed in the SECY that includes proposals to either rescind financial qualification reviews or amend the regulations to cease financial qualification reviews as a component of an initial licensing decision. The non-concurring staff presented arguments that suggest the Recommended Staff Option (Option 2), contradicts already established Commission policy established by the 2004 final rule regarding financial information required for license renewal. This rulemaking established that financial qualification reviews are a key component of the licensing decision to renew or extend the term of an operating license and that the review must be done at the time the decision is made and not as part of any subsequent review activity. This rule also indicated a basis for performing the financial qualification reviews at the time of initial licensing.

Furthermore the non-concurring staff assertions delineate that there is a nexus between financial solvency and safe plant operation, that financial qualifications are part of an integrated set of regulatory requirements governing financial viability and ability to safely operate a nuclear facility, and that eliminating or revising regulatory requirements or even revising requirements to allow for deferred review of financial qualifications will not address the fundamental concerns of potentially licensing an "unsound company," and would potentially create significant regulatory challenges to mandating remedial financial actions after the applicant has already completed their financial negotiations.

With the above in mind I have two comments regarding the non-concurring staff's position and my own perspectives on the approach proposed in the SECY. Regarding the paper itself, it is well written and captures and bounds the extent of the issue. As with most Option papers there is fundamentally two paths; change (maintain the status quo) or no change. The Paper is recommending change. I agree that in the current environment change and reanalysis, at this time, is prudent. The Paper parses the changes into two key areas; rulemaking or conditioning of the license within the existing regulatory framework. The Paper recommends rulemaking. I agree that rulemaking would be the most effective means for addressing the scope and magnitude of the issues regarding financial qualification. To the contrary the I believe the option to generically apply a process for using licensing conditions to address financial qualifications is too narrow and will likely create additional unnecessary complexity both legally and technically and therefore should not be the recommended option.

Regarding my comments, firstly, the paper recommends rulemaking "to amend or rescind 10 CFR Part 50 financial qualification requirements." This recommendation delineates three "Approaches" that a rulemaking might take which are; Approach A: "Rulemaking to Rescind Financial Qualifications Requirements for Initial Licensing," Approach B: "Rulemaking to Amend Financial Qualifications to an Ongoing Oversight Indicator," and Approach C: "Rulemaking to Conform Reactor Financial Qualifications Requirements to 10 CFR Part 70 Standards." Fundamentally I agree all three are reasonable actions to consider. However, Approach A; to rescind the regulation and eliminate entirely at the time of initial licensing I believe should not reside in the section delineating that it may be one of the staff's recommended approaches even though it falls within the scope of "rulemaking." The paper indirectly acknowledges that rescinding the requirement runs contrary to the principles of defense in depth. Rescinding the requirement would remove a layer of the regulatory framework and the Agencies means to ensure the health and safety of the public. The paper infers that the requirement is too conservative. Nonetheless eliminating the opportunity for the staff to evaluate, at the time of initial licensing, the financial stability and viability of an applicant to construct and operate a commercial power plant safely removes the potential for the staff to preempt and stop questionable practices by an applicant, driven by fiscal challenges, before they might be manifested in actual safety issues. Additionally, given the regulatory and legal history,

CONTINUED IN SECTION D

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5/17/13

SEE SECTION E FOR IMPLEMENTATION GUIDANCE

NON-CONCURRENCE PROCESS

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POLICY OPTIONS FOR MERCHANT PLANT FINANCIAL QUALIFICATIONS

ADAMS ACCESSION NO.

SECTION D: CONTINUATION PAGE

CONTINUATION OF SECTION A B C

that has repeatedly acknowledged that there is a nexus, albeit indirect and as a secondary relationship, between financial qualifications and the health and safety of the public and the financial stability of a licensee, rescinding the requirement would fundamentally run counter to the Agencies mission. In essence, why would the staff recommend eliminating a means to provide a more robust regulatory framework for ensuring the health and safety of the public? I would suggest that this approach be removed to a separate section that does not reside within the scope of the staff recommended Option 2, but that it should remain as an option for consideration by the Commission.

Secondly, this Commission Paper delineates and describes in several instances, through legal record, that there is not a direct nexus between safety and financial stability (qualification). With this assertion, coupled with the fact that there are other regulatory mechanisms for ensuring safe plant operation, the paper suggests, and as the recommended option, that financial qualification reviews at the time of initial licensing might not be necessary. However, the recommended option contradicts already established precedent, as stated by the non-concurring staff. Specifically that the 2004 final rule regarding financial qualification of applicants for license renewal ("Financial Information Requirements for Applications to Renew or Extend the Term of an Operating License for a Power Reactor," January 30, 2004. 69 FR 4439) which states: "The NRC performs financial qualifications reviews during initial licensing because the startup of a nuclear power reactor is a major financial undertaking that has significant implications for a company's financial health....these reviews form part of the licensing basis that the licensee must maintain for the 40 year term of the initial license and for any license renewal period." In this regard I agree with the non-concurring staff that the Commission Paper did not address existing regulatory bases adequately. I disagree, however, that simply because there is precedent established for the license renewal process that neither could not be changed. Nonetheless, the paper falls short on explicitly considering this particular important context.

In summary I agree that that the options presented in the paper adequately capture the viable alternatives to the status quo. I would argue that Approach A under Option 2 is prudent as a staff recommended Approach/Option but should remain in the paper elsewhere for Commission consideration. I would also submit, consistent with the non-concurring staff, that there are instances where contradicting policy might not be adequately addressed (license renewal) and that deviation from the status quo might create double standards unless extensive change is visited in other areas of the regulatory framework. However, I do believe that these latter concerns can be dispositioned through application of our rulemaking process should the Commission choose this Option 2.

SEE SECTION E FOR IMPLEMENTATION GUIDANCE

NON-CONCURRENCE PROCESS

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POLICY OPTIONS FOR MERCHANT PLANT FINANCIAL QUALIFICATIONS

ADAMS ACCESSION NO.
ML13057A006

SECTION C - TO BE COMPLETED BY DOCUMENT SPONSOR

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SUMMARY OF ISSUES
See Attachment C

ACTIONS TAKEN TO ADDRESS NON-CONCURRENCE

See Attachment C

SIGNATURE--DOCUMENT SPONSOR

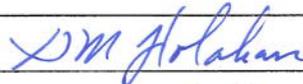


TITLE Division Director

ORGANIZATION NRO/DARR

DATE 07/30/2013

SIGNATURE--NCP REVIEWER



TITLE Deputy Office Director

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see NCP Reviewer Comments attached to

DATE 07/30/2013

NCP OUTCOME

Section D.

Non--Concurring Individual: CONCURS NON-CONCURS WITHDRAWS NON-CONCURRENCE (i.e., discontinues process)

AVAILABILITY OF NCP FORM

Non--Concurring Individual: WANTS NCP FORM PUBLIC WANTS NCP FORM NON-PUBLIC

CONTINUED IN SECTION D

SEE SECTION E FOR IMPLEMENTATION GUIDANCE

Section C –

Summary of Issues

The non-concurring individuals identify 8 issues in Section A (underlined and bolded text), and include introductory and concluding remarks. A brief summary of each is provided below. The non-concurring individuals have reviewed this summary and agreed with it.

- The introductory remarks assert that revising the financial qualification requirements, as proposed in the subject SECY paper, would come at the expense of the Commission honoring its statutory obligations. They state the paper goes well beyond the industry's initial proposal and instead, "propose the elimination of financial qualifications entirely from the licensing basis." They note their position that merchant plant licensees require additional financial scrutiny, and they note existing practices (including rules, policies, and practices) provide sufficient flexibility to the NRR staff to address the various COL applicant proposals.
- **"The proposed rulemaking option is inconsistent NRC's statutory responsibilities and provides no basis for a departure from current policy."**

Under this issue, it is stated that the NRC has recognized the higher financial risk posed by merchant plant licensees stemming from the lack of direct state public utility commission oversight and the inability to use rate-based tariffs. A discussion of aspects of the 2004 final rule on license renewal which address financial information requirements is provided. A quotation from the final rule that addressed financial qualification reviews at initial licensing is provided, as is a quotation addressing the importance of the regulatory framework for financial qualifications.

The Section A text is sufficiently clear and concise that further summary here is not necessary.

- **"Removing financial qualification from the licensing basis (Rulemaking Options A and B) would undermine the NRC's ability to identify, monitor and address risks related to financially stressed licensees."**

The description of this issue notes how financial qualification reviews occur today (initial licensing and license transfers) and the monitoring the staff does using financial reports and trade press information. The adverse impact of removing financial qualification requirements on the staff's ability to pursue licensee financial stability is summarized and a previous Commission statement about the safety rationale underpinning the financial qualification requirements is cited.

- **"Financial qualifications are part of an integrated set of regulatory requirements."**

The description of this issue asserts a nexus between financial qualifications and decommissioning funding assurance, citing previous staff statements in the Federal

Register, effectively emphasizing that these were “official” public statements. The description includes explanations to the GAO about how financial qualification reviews also assure compliance with Price-Anderson. While the linkage between financial qualifications and Price-Anderson is not direct, it is asserted to be clearly related.

A final point under this issue is that the proposed elimination of financial qualification reviews from the licensing process does not address how the NRC would address the potential risks of a licensee becoming insolvent.

- **“The Commission’s existing financial qualifications already provide substantial flexibility to merchant applicants.”**

The description of this issue briefly elaborates the flexibilities under the existing regulation and the staff’s implementation of that regulation, including the types of information that could be used to satisfy the requirement. It notes the “reasonable assurance” finding that the staff must make under the existing regulation.

- **“The proposed rulemaking would replace a market-based determination with a regulatory determination.”**

The description of this issue notes that “market conditions” largely determine project viability and financing prior to COL issuance, or a market approach. However, changing the process to a post-licensing financial determination by the staff would make this a regulatory approach which could result in delays in the project and potentially have an adverse impact on the licensee’s ability to finalize financing. It is noted that a merchant applicant that cannot satisfy the financial qualification requirements, with the flexibility that is already afforded, might suffer from a flaw in the applicant’s business model rather than a regulatory barrier. The discussion closes with a reference to statutory obligations under the Atomic Energy Act of 1954, as amended.

- **“Eliminating or weakening financial qualifications requirements will not remedy merchant applicant financing issues.”**

The description of this issue, in effect, argues against the position asserted by industry representatives, namely that not having a COL is a significant impediment to securing the financial commitments needed to demonstrate financial qualification. The example of a preliminary DOE loan guarantee being awarded to a merchant applicant is cited to demonstrate that financing solutions are available to merchant applicants and that NRC regulations are not the only challenge.

- **“The Commission should balance financial qualifications requirements with impacts on public health and safety, costs to industry, and ability to enforce. Delaying a financial qualifications review until after licensing may permit the licensing of financially unsound companies.”**

The description of this issue emphasizes that without a pre-licensing financial qualifications review, a financially unsound company could receive a license. A quote from the Commission is provided to support the argument.

Additionally, an example of a COL applicant negotiating a pre-packaged Chapter 11 filing is provided to support the argument that absent a pre-licensing financial review the staff would have no ability to identify such an applicant prior to licensing.

- **“If the Commission decides to revise its existing policies applicable to new merchant transmission projects, it should consider maintaining financial qualifications in the NRC licensing basis.”**

This issue essentially proposes another “rulemaking” option wherein the regulations would be amended to reflect a two part showing of financial qualifications similar to the way Decommissioning Funding Assurance is handled in 50.75. As described, this would also require a change to Commission policy on license conditions which expects post-licensing review to be “ministerial” in nature. It is asserted that this approach would keep financial qualifications in the licensing basis and ensure the staff’s ability to identify and mitigate financial distress in licensees. It also is asserted that self-certification may be problematic as such certifications may not identify and screen financially unsound applicants, and that applicants without sources of funds could not self-certify.

- **“Conclusion”**

The concluding remarks recommend that the Commission maintain the present financial qualification regulations, but notes that if the Commission decides to revise the existing policies it should do so in a manner that does not compromise public health and safety.

Assessment

Since the time the non-concurrence was filed the Commission held its Agency Action Review Meeting (AARM) which included presentations by industry representatives. During the discussion of those presentations, information was provided that appeared to relate to how utility finances were used in assuring adequate maintenance and safe operation of the plant. Because of the potential impact on the paper that is the subject of this non-concurrence, a management decision was made to suspend activities until all of the contributing staff had an opportunity to review the video archive and transcript of the AARM meeting. This staff review did not support the notion that the AARM discussion bore directly on the financial qualifications paper. Further, the SRM associated with the AARM Commission meeting did not identify any actions related to the financial discussion. Thus, all of the contributing staff fully supported restarting efforts to complete the paper and assess its associated non-concurrence.

Before re-starting these efforts, two substantive changes were made to the paper. First, the industry-proposed license condition option was moved from the options section to the discussion section. This option was moved to discussion because it was not completely clear that this option could be implemented if selected by the Commission; yet, because this option

was the approach proposed by the industry to address the financial qualification issue for merchant plants, it merited substantive consideration and discussion in the paper.

The second change was the addition of a discussion of the number of utilities versus merchant plants that had multiple degraded cornerstones as assessed through the Reactor Oversight Program.

Since the non-concurring individuals had not reviewed this version of the paper prior to submitting their non-concurrence, the revised version was provided to them via e-mail and their input was solicited. Comment was provided by one individual, with subsequent supporting e-mails from the other individuals. All three e-mails are included as Attachment 1. That comment is addressed following assessment of the original non-concurrence issues.

For convenience, the key issues from the summary of issues are repeated below, with the assessment of the issue provided below the statement of the issue.

- **Introductory Remarks**

The introductory remarks are the first instance where the notion of Financial Qualification as a statutory obligation appears. However, it is explored further in the first issue. The introductory remarks also correctly state that the paper goes well beyond the industry's initial proposal. The paper provides a discussion of why the industry proposal of a license condition is problematic. Rather than simply deny the license condition proposal, the paper explores other possible approaches should the Commission wish to address the underlying issue of granting a Combined License to an entity with no readily identifiable sources of funding at the time the license is issued. The introductory remarks also note that merchant plant licensees require additional financial scrutiny and note that existing practices provide sufficient flexibility to address the various COL applicant proposals. However, the flexibilities noted do not permit the situation described by the industry wherein a merchant plant applicant with no identifiable funding cannot satisfy the existing financial qualification requirements, yet that applicant cannot secure the financing for the project unless and until they receive the COL. While the existing practices do offer significant flexibility to an applicant in demonstrating adequate financing for the project, the issue raised by the industry and posed to the Commission in the paper goes beyond the existing practices.

- **"The proposed rulemaking option is inconsistent NRC's statutory responsibilities and provides no basis for a departure from current policy."**

The first aspect of this issue is the assertion of a statutory responsibility related to financial qualifications. The non-concurring staff was asked to provide a specific citation in the Atomic Energy Act documenting this assertion. The e-mail response (Attachment 2) did not provide a specific citation but described the non-concurring staff's rationale for how Commission policy actions have effectively constituted a "statutory" responsibility.

If the Atomic Energy Act included a statutory requirement to consider financial qualifications of an applicant, then the rulemaking option in the paper would not be legally viable absent a legislative change.

The non-concurring staff's rationale notwithstanding, the fact remains that the Atomic Energy Act does not articulate a "statutory responsibility" to address financial qualifications of an applicant. Rather, the legislation includes "permissive" language stating that the Commission may impose such requirements. (See AEA Section 182, which states in part "[E]ach application for a license hereunder shall be in writing and shall specifically state such information as the Commission, by rule or regulation, may determine to be necessary to decide such of the technical and financial qualifications of the applicant..."). Thus, the first aspect of the issue is not supported in fact.

The second aspect of the issue is whether the paper provides a sufficient basis to suggest a departure from current policy. A fundamental aspect of the paper is to pose to the Commission the question of "IF" they are willing to depart from current policy, as proposed by industry representatives. The first option presented in the paper is for no change to the existing policy. However, if the Commission is willing to consider a change to the current policy, rulemaking processes are the suggested options. Thus, the policy issue under discussion is a fundamental part of the paper and underlies the proposed options. The assertion of an inadequate basis for suggesting changes to current policy is not supported given the fundamental approach taken in the paper - namely presenting a range of options for Commission consideration.

- **"Removing financial qualification from the licensing basis (Rulemaking Options A and B) would undermine the NRC's ability to identify, monitor and address risks related to financially stressed licensees."**

A "con" statement specifically addressing this issue is included in the pros and cons discussion of the rulemaking option (now Option 2, Approach A). By including this statement, this issue is addressed in the paper.

- **"Financial qualifications are part of an integrated set of regulatory requirements."**

The one-time licensing review of an applicant's financial qualifications is not directly tied to either decommissioning funding or retrospective premiums under Price-Anderson. As noted in the SECY paper, Part 52 Combined Licenses do not expire, thereby allowing COL licensees to defer construction indefinitely. In this situation, a pre-licensing financial qualification review would not guarantee adequate funding at the time of construction. Assuming the licensee has or was able to secure funding to construct the plant, 10 CFR 50.75(b)(1) requires the licensee submit a decommissioning report, containing a certification that financial assurance for decommissioning will be provided. This report must be provided no later than 30 after the Commission publishes in the Federal Register the licensee's scheduled date for initial fuel loading. Thus, the decommissioning funding certification is provided, by regulation, at the end of the construction period which is several years after the pre-licensing financial qualification review, and is a separate action.

Similarly, the insurance requirements of Price-Anderson are addressed as a license condition in 10 CFR 50.54(w), with an annual reporting requirement in 10 CFR 50.54(w)(3) for the licensee to report on the current levels of the insurance or financial security it

maintains and the sources of this insurance or financial security. As with decommissioning funding rules, the pre-licensing financial qualification review is not directly related to Price-Anderson insurance requirements under 10 CFR 50.54(w).

Still, as noted in the SECY paper, a careful examination of decommissioning funding and Price-Anderson insurance regulations would be needed as part of any rulemaking effort to ensure there are no emergent or unintended consequences of the rulemaking that would undermine or erode those funding rules.

While there are clearly important considerations related to the finances of a licensee, it is not clear that the pre-licensing financial qualifications review is a good predictor of subsequent licensee financial health. From a reading of the relevant regulations, the assertion that the pre-licensing financial qualification review is an integral aspect of decommissioning funding or the primary or secondary insurance requirements under Price-Anderson is not supported. Further, it is not clear how the pre-licensing financial qualification review addresses the potential risks of a licensee becoming insolvent, given the significant time periods between the pre-licensing financial qualifications review and the point at which a licensee might become insolvent.

- **“The Commission’s existing financial qualifications already provide substantial flexibility to merchant applicants.”**

The Commission’s existing financial qualification requirements and guidance do provide substantial flexibility to merchant applicants but, as noted in the description of this issue, the staff must make a finding of reasonable assurance. The issue proposed by the industry seeks flexibility beyond what is currently permitted. The industry has asserted that project financing for a merchant plant can be difficult if not impossible to obtain absent a COL; but absent adequate financial qualification (recognizing the flexibilities afforded by the existing regulation and practice) an applicant cannot satisfy the current financial qualification requirements, and therefore cannot obtain the needed COL.

The SECY paper essentially asks the Commission if they wish to consider the concept of issuing a combined license to a merchant plant that has little or no financing at the time the license is issued. If so, then rulemaking is the recommended approach. If the Commission does not wish to entertain this situation, they would simply select the status quo option. This scenario, and the options, is explained in the paper.

- **“The proposed rulemaking would replace a market-based determination with a regulatory determination.”**

This issue deals largely with the staff reviewing project financing arrangements in advance of licensing versus reviewing those arrangements after licensing, noting that resolving problems post-licensing could lead to delays in the project. Whether the staff’s review is performed pre- or post-licensing, the fact remains that it is a regulatory action, and if the staff finds in either situation that the financial arrangements are inadequate, significant delays in the project could ensue.

- **“Eliminating or weakening financial qualifications requirements will not remedy merchant applicant financing issues.”**

The issue framed by the non-concurring individuals is factual, given the current regulatory structure. It also goes to the heart of the conundrum posed by the industry; namely, some, if not all, merchant plant applicants will have difficulty securing the level of financial qualifications required (recognizing the significant flexibilities already afforded) absent a COL, but they cannot obtain the COL absent meeting the financial qualification requirements.

There seems to be little, if any, question that the staff is correctly interpreting the existing regulations. However, the question posed in the SECY is IF the Commission wishes to change the policy relating to pre-licensing financial qualifications and the associated regulations and guidance bearing on that determination.

- **“The Commission should balance financial qualifications requirements with impacts on public health and safety, costs to industry, and ability to enforce.”**

All decisions undertaken by the Commission, including this one, balance the issue being considered with potential impacts on public health and safety, and the NRC’s ability to enforce them. This paper poses the question of “IF” the Commission wishes to change policy and requirements related to financial qualifications. Certainly, the issues posed by the non-concurring individuals are essential aspects of any decision making process by the Commission, and of any rulemaking process the Commission might direct the staff to undertake.

- **“Delaying a financial qualifications review until after licensing may permit the licensing of financially unsound companies.”**

If one simply takes the assertion underlying this issue at face value - that a financially unsound company could receive a COL - the fact remains that the licensee would have to secure financing largely from domestic commercial sources, to be able to proceed with construction and operation. The potential for foreign ownership, control, or domination is a separate and very important review that is not affected by the actions proposed by the industry and that are addressed in this paper. Pre-licensing financial qualification review aside, a licensee must secure several billion dollars in project financing to be able to license, construct, and move to operation a nuclear power plant project. It seems unlikely that the commercial market would support financing such a project if it were “financially unsound.”

The industry essentially asserts that the pre-licensing financial qualification review is an unnecessary obstacle to licensing merchant plant projects. That is the fundamental issue posed to the Commission in this SECY for consideration.

- **“If the Commission decides to revise its existing policies applicable to new merchant transmission projects, it should consider maintaining financial qualifications in the NRC licensing basis.”**

The non-concurring individuals suggest a specific rulemaking option under which an applicant would submit a certification that they will 1) obtain adequate financing of construction and operating costs prior to the start of construction and that 2) the funding will comply with the restrictions against foreign ownership, control or domination. However, as discussed in the SECY paper, this option does not appear to be legally viable because a post-licensing substantive review is not a “ministerial act”. Thus, while this option is included in the discussion of rulemaking options, it is not included as an option for consideration.

If the Commission decided to revise its existing policies, two of the three rulemaking options address some form of continuing financial qualification assessment. Approach B would address this as an ongoing oversight indicator while Approach C would conform the requirements to be consistent with Part 70 standards, which would accommodate the license condition approach suggested by the industry. Thus, the options and approaches provided in the SECY address this issue.

- **“Conclusion”**

Option 1 in the paper addresses the non-concurring individuals’ recommendation to maintain the status quo. Without question, if the Commission were to decide to revisit the policy and requirements related to financial qualifications, the Commission and staff would invoke existing processes for rulemaking that, by design, offer ample opportunity for stakeholder input and never compromise public health and safety.

Additional Issue Related to Revised Version

The revised version of the paper included a brief assessment of licensee performance as measured by the Reactor Oversight Program, contrasting merchant plants to electric utilities. The non-concurring individuals note that the ROP has no financial measurement and, thus, no conclusion can be drawn from a comparison of utility and merchant plants with regard to their financial qualifications and a connection to safety. They go on to note that this data reflects conditions when finances for all licensees have not been challenged, and that the data cannot be used to predict performance when finances are challenged.

As noted by the non-concurring individuals, the ROP does not have a financial measure, and even if it did, it would be difficult to use these data to predict future performance. However, the comparison added to the paper notes that there does not appear to be a significant correlation between whether a plant is an electric utility or a merchant plant and whether the plant will be in the “degraded cornerstone” category. This observation is consistent with a general theme in the paper that a clear nexus between financial qualifications and safety has not been established, yet there are not sufficient data to completely refute the argument. No further implications of this information are included in the paper.

Determination

After careful consideration of all the issues raised by the non-concurring staffers, no changes beyond what has been discussed above were made to the paper.

Attachment 1: E-mails providing comment on the revision of the paper

From: Fredrichs, Thomas
Sent: Saturday, June 29, 2013 4:57 PM
To: Mayfield, Michael; Simmons, Anneliese; Dusaniwskyj, Michael
Cc: Nieh, Ho; Regan, Christopher
Subject: RE: OGC CHANGES TO THE FQ PAPER

Mike M.,

Thanks for OGC's comment.

My comment is that the ROP has no financial measurement, and therefore, no conclusion can be drawn from a comparison of utility and merchant plants with regard to their financial qualifications and a connection to safety. Merely stating that merchant plants appear to have fewer degraded cornerstone categories does not answer the question of the connection between safety and finances. However, from other data, namely financial reports, we can say that the last decade was profitable for utilities and merchants alike. So the ROP only tells us what happens when finances were ample. Without financial stress, the data do not tell anything about a nexus to safety. The ROP data cannot be extrapolated to the future, where low natural gas prices will put new financial pressures on nuclear operators. From that, I conclude that rescinding the FQ requirements is premature, and neither supported or refuted by ROP data from previous years. That shortcoming should be included in the paper

Tom F.

From: Mayfield, Michael
Sent: Tuesday, June 25, 2013 5:43 PM
To: Simmons, Anneliese; Dusaniwskyj, Michael; Fredrichs, Thomas
Cc: Nieh, Ho; Regan, Christopher
Subject: OGC CHANGES TO THE FQ PAPER

Anneliese/Mike/Tom – since Sara made some non-trivial changes to the paper, and added some info from the ROP, I wanted to ask if you had any additional comments relative to your non-concurrence.

Thanks for considering.

Mike

From: Simmons, Anneliese
Sent: Tuesday, July 02, 2013 2:51 PM
To: Mayfield, Michael; Dusaniwskyj, Michael
Subject: RE: REVISED FQ PAPER

Thanks Mike, I am fine, and agree with Tom's input. Thanks.

From: Mayfield, Michael
Sent: Tuesday, July 02, 2013 2:29 PM

To: Simmons, Anneliese; Dusaniwskyj, Michael
Subject: REVISED FQ PAPER

Anneliese/Mike – Any input/comments on the revision to the FQ paper relative to your non-concurrence? I got a comment from Tom and would like to make sure I capture all of the views in the writeup.

Thanks

Mike

From: Dusaniwskyj, Michael
Sent: Tuesday, July 02, 2013 3:26 PM
To: Mayfield, Michael; Simmons, Anneliese
Subject: RE: REVISED FQ PAPER

Nothing from me.

Mike D.

From: Mayfield, Michael
Sent: Tuesday, July 02, 2013 2:29 PM
To: Simmons, Anneliese; Dusaniwskyj, Michael
Subject: REVISED FQ PAPER

Anneliese/Mike – Any input/comments on the revision to the FQ paper relative to your non-concurrence? I got a comment from Tom and would like to make sure I capture all of the views in the writeup.

Thanks

Mike

Attachment 2: E-mail explaining basis for “statutory requirement” phrasing

From: Simmons, Anneliese
Sent: Thursday, May 30, 2013 6:03 PM
To: Mayfield, Michael
Cc: Dusaniwskyj, Michael; Fredrichs, Thomas
Subject: Follow up to non-concurrence.

Mike, thanks for meeting with us yesterday. We appreciate the discussion and different viewpoints. Attached please find a short summary to try to clarify why we think removing FQ reviews would be inconsistent with our statutory responsibilities.

Section 182.a of the AEA requires an applicant for a license for a production or utilization facility to submit information in its application “as the Commission, by rule or regulation, may determine to be necessary to decide such of the technical and financial qualifications of the applicant.”

The Commission referenced the statutory requirements in at least two rulemakings. First, in the final rule for Part 52 (49352 Federal Register/Vol. 72):

*c. Appendix C to Part 50—A Guide for the Financial Data and Related Information
Required To Establish Financial Qualifications for Construction Permits and Combined
Licenses*

Section 182.a of the AEA requires an applicant for a license for a production or utilization facility to submit information in its application “as the Commission, regulation, may determine to be necessary to decide such of the technical and financial qualifications of the applicant as the Commission may deem appropriate for the license.” The NRC has long determined the need for non-utility applicants for nuclear power plant construction permits and operating licenses to establish their financial qualifications (see [10 CFR 50.33\(f\)](#)), and has set forth the specific information on financial qualifications to be provided by applicants for construction permits in appendix C to part 50. Inasmuch as holders of combined licenses under part 52 are authorized to perform the same construction activities with respect to a nuclear power plant as a holder of a construction permit under part 50, the NRC believes that applicants for combined licenses should be subject to the requirements of appendix C to part 50. Accordingly, the title of appendix C is revised to make clear the applicability of this appendix to applicants for combined licenses. This change constitutes a conforming change to the revision of § 50.33.

Second in the background and text of the final rule regarding license renewal (69 FR 4439):

...there are valid regulatory reasons for conducting specified financial qualifications reviews at other license stages. The license stages are (1) **at initial licensing, when an**

applicant's financial qualifications need to be determined in accordance with the AEA's requirements; (2) at the time of a license transfer, (emphasis added).

Because the Commission references the AEA multiple times in discussing financial qualifications requirements, and the AEA states the Commission must decide the financial qualifications of the applicant, the staff feels that rescinding the rule would be inconsistent with the statute.

Finally, the requirements for decommissioning financial assurance for a COL, are in 10 CFR 50.75(b)(1) and (e)(3).

NON-CONCURRENCE PROCESS

NCP TRACKING NUMBER
NCP-2013-002

TITLE OF SUBJECT DOCUMENT

Policy Options for Merchant (Non-Electric Utility) Plant Financial Qualifications

ADAMS ACCESSION NO.

ML13057A006

SECTION D: CONTINUATION PAGE

CONTINUATION OF SECTION

A

B

C

Non-Concurrence Process- NCP Reviewer Comments, July 31, 2013:

First, I would like to thank the non-concurring staff for sharing their views and using the non concurrence process. It has added to the quality of the discourse and shed additional light on this topic. The Commission will be better informed in its decision-making process because they voiced their views.

I have reviewed the financial qualification paper (Policy Options for Merchant (Non-Electric Utility) Plant Financial Qualification) and the views of the non-concurring individuals as well as the position of the Branch Chief and the Document Sponsor. In addition, I reviewed the relevant sections of the NRC regulations and the Atomic Energy Act (AEA). I conclude that the paper and the non-concurrences raise three fundamental questions:

- 1) "Does the Atomic Energy Act require financial qualification as a prerequisite to licensing?"
- 2) "Is there a nexus between safety and financial qualification?" and
- 3) "What regulatory requirements, if any, are appropriate in this area?"

The answer to the third question is, of course, dependent on the answers to the first two.

The first question is best answered by the Office of the General Counsel. The OGC contributions to the paper and their concurrence in it implies that they agree with the position presented in the paper; namely, that the AEA authorizes the Commission to require information on financial qualification but does not require financial qualification of applicants or licensees.

The viability of Option 2 (Approach A) hinges on the fact that the AEA does not require financial qualification of applicants or licensees. OGC's concurrence in including this approach also indicates that the AEA does not mandate financial qualification as a pre-requisite to licensing. In addition, it is clear that section 182 of the AEA (in fact all of Chapter 16 of the AEA) relates to "Judicial Review and Administrative Procedures". The fundamental standards for reactor licensing are not in section 182 but in AEA Chapters 1 and 10 "Declaration, Findings and Purpose" and "Atomic Energy Licenses". Those Chapters articulate the fundamental requirements for licensing including:

- Defining "... safety standards to protect public health ...";
- Issuing "... licenses to persons ... equipped to observe and agree to observe such safety standards ..."
- Establishing "... safety standards to protect the health and minimize danger to life or property ...;
- Requiring "... technical information and data ... necessary to promote the common defense and security and to protect the health and safety of the public...;
- Prohibiting some potential licenses, "No license may be issued to an alien or any corporation ...owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government."

SEE SECTION E FOR IMPLEMENTATION GUIDANCE

NON-CONCURRENCE PROCESS

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SECTION D: CONTINUATION PAGE

CONTINUATION OF SECTION

A

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Non-Concurrence Process - NCP Reviewer Comments, July 31, 2013, continued:

Financial qualification is not mentioned in these Chapters as fundamental licensing requirement. The financial qualification regulations are therefore defined at the Commission's discretion to support the other licensing requirements.

With respect to the second question, I conclude that the paper provides a well-documented history of the considerations of the nexus of financial qualification and safety. The paper appropriately states that the nexus between financial qualification and safety is indirect and of secondary importance to ensuring public health and safety. If financial qualification or other financial information were demonstrated to predict safety performance, the Commission could choose to address it in either the licensing process or the reactor oversight process (as a leading indicator). The paper therefore provides the Commission with appropriate options in light of the relationship of financial qualification to safety.

Lastly, I conclude that the paper provides the Commission with an appropriately broad range of options on how to regulate financial qualification issues, including the status quo, "no action" option. The consideration of both the NEI opWLon and the non-concurring staff option were not included in the options for appropriate reasons, as discussed in the paper.

In conclusion, I agree with the Document Sponsor's assessment of the non-concurrence and support the Commission paper as written including the recommendation for rulemaking without a specific recommendation for either rulemaking Approach A, B or C. The non-concurring individuals appropriately presented their views and preference for the status quo. With this information attached to the paper, the Commission should be well informed on the topic.

Gary Holahan
Deputy Director
Office of New Reactors

SEE SECTION E FOR IMPLEMENTATION GUIDANCE

Enclosure 2 - Analysis of NEI License Condition Proposal

Summary

On November 13, 2012, the Nuclear Energy Institute (NEI) submitted a letter to U.S. Nuclear Regulatory Commission (NRC) Chairman Allison M. Macfarlane requesting Commission guidance to clarify the application of financial qualifications requirements for new nuclear plant development by merchant plants.¹

In the letter, NEI stated that merchant plant applicants face difficulty in obtaining investors and lenders without a combined license (COL). (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12334A187).

Because the current financial qualifications requirements in Title 10 of the *Code of Federal Regulations* (10 CFR) 50.33, "Contents of Applications; General Information," require a finding of reasonable assurance of the availability of adequate funds before issuance of a COL, NEI recommended that the Commission issue guidance allowing the use of a license condition to satisfy the NRC financial qualifications requirements and allow issuance of the license. Specifically, NEI stated that a license condition could be included in the COL to meet the requirements of 10 CFR 50.33(f) and Part 50, "Domestic Licensing of Production and Utilization Facilities," Appendix C, "A Guide for the Financial Data and Related Information Required to Establish Financial Qualifications for Construction Permits and Combined Licenses." NEI attached proposed generic license conditions to their submission.

The following presents the staff's analysis of NEI's proposal in light of NRC financial qualifications requirements.

NEI Proposed License Conditions

Appendix A of NEI's letter included the following proposed generic license condition for merchant (non-electric utility) applicants. Following is the staff's evaluation of the proposed license condition.

Appendix A: Example of Financial Qualifications License Condition. [The Licensee] is financially qualified in accordance with 10 CFR 50.33(f) and Part 50, Appendix C, based upon satisfaction of the following license condition prior to commencing construction authorized by the license:

Construction pursuant to this license shall not commence before funding is substantially committed at a Financial Closing with Lenders in connection with a Project Financing for the Facility. At least 30 days prior to the Financial Closing, the Licensee shall make available for NRC inspection, draft copies of documents to be executed at the Financial Closing of the Project Financing that demonstrate the following:

¹ The term "merchant plants" is not defined in NRC regulations. NRC regulations refer to "non-electric utilities" to distinguish from utilities which have access to a source of funds via ratemaking.

- 1. One or more Qualified Financial Institutions (Lenders) will provide funding that, when combined with equity either already paid or committed, is adequate to complete construction and commence operations[.]**

Staff Evaluation of NEI Appendix A: Condition 1

NEI describes a “qualified financial institution” as “an institution with a senior, unsecured and unenhanced credit rating of A or better by Standard & Poor’s or Fitch’s or A2 or higher by Moody’s, or a rating meeting other comparable international standards.”

To make a finding of financial qualification, the staff must make an independent assessment of the “adequacy of the information provided and the applicant’s ability to meet the standards stipulated in the NRC’s regulations” (NUREG-1577, “Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance,” Revision 1, dated March 1999).

The NEI proposal appears to indicate that the staff’s assessment of the proposed lender will be based on its senior secured credit rating. The staff may consider credit ratings as a factor in its independent evaluation, but the staff may not rely *solely* on an entity’s bond rating as proposed by NEI. An entity’s bond rating provides useful insight regarding an entity’s financial position. However, depending on the particular facts and circumstances, the staff’s finding would be based on an evaluation of other factors in addition to its credit rating. These factors would include an evaluation of the financial plan describing internal and external sources of funds, a review of annual financial reports, including income, balance sheet, and cash flow statements (Appendix C, Section I(A)(3) and NUREG-1577). The evaluation may include the amount of funding to be provided by each source of funds, liquidity, debt-to-income ratios, recent material events, and financial performance over time. For an applicant that is a newly formed entity, the applicant would need to provide additional information such as the assets, liabilities, and capital structure of the entity. The staff would likely take into consideration whether a purchase power agreement has been finalized for the project.

Further the NEI statement that funding must be adequate “to commence operations” does not appear to meet the NRC requirement that sources of funds be sufficient “for the period of the license” (10 CFR 50.33) The staff must assess, at a minimum, the first 5 years of projected revenue and operational costs.

NEI License Condition 2: The Lenders’ Independent Engineer has provided an updated estimate of the Total Project Costs[.]

The staff must likewise make an independent assessment of the reasonableness of the cost estimate provided by the applicant and cannot rely solely on the Lender’s Independent Estimate for its finding. Per NRC requirements under 10 CFR 50.33, the applicant must submit estimates of the total construction costs of the facility and related fuel cycle costs. For a newly formed entity, the applicant must provide an estimate including total nuclear production plant costs, transmission, distribution and general plan costs and nuclear fuel inventory costs for the first core. Information describing the bases of the estimate must also be included. The NRC staff would need to develop guidance on what information would be sufficient to comply with Appendix C of Part 50.

Further, per the guidance in NUREG-1577, the staff must make an evaluation of the cost estimate. Because of the significant uncertainty in any cost estimate, the staff may need to evaluate the methodology used to develop the cost estimate; specifically, the information included in or excluded from the cost estimate, such as the level of contingency included in the assumptions. It is also unclear if the independent engineer's cost estimate would be "overnight" costs, which would not include cost escalation or financing costs. Cost escalation and proposed construction dates also would need to be identified and evaluated. The NRC staff reviews studies from independent sources and collects projected construction cost estimates from all COL applications, as they are submitted, for comparison and reasonableness. Without the detailed information required by regulation, the staff would be unable to make an accurate "apples to apples" comparison to support its finding.

- 2. *The legal and financial relationships between the Licensee and the entities providing funding are identified in the Financial Closing documents, which also must demonstrate that the Licensee has available funds in a total amount that is not less than the amount of Total Project Costs estimated by the Lenders' Independent Engineer, through: (1) loans committed by one or more Qualified Financial Institutions, and (2) equity either funded or committed in a manner acceptable to the Qualified Financial Institutions (e.g., escrows, guarantees, letters of credit, etc..)[.]***

As described previously, the staff would not be able to use the independent engineer's cost estimate alone to make its finding regarding the reasonableness of the amount funds required to construct. Further, the staff would need to consider additional factors beyond the acceptability of the funding by the lenders. This may include the creditworthiness of each lender, the specific terms of the funding documents or funding method, and the amount of funding provided. For example, the staff would need to evaluate additional information to approve a financial guarantee backed by a newly formed entity that lacks an established financial record. The staff would need to review the entity's assets, liabilities, and capital structure, and take into consideration its revenue analysis to determine if it had the financial capacity for raising and managing capital at the level required for construction and operation.

If the independent engineer's cost estimate was prepared as an "overnight" estimate, the staff would not be able to evaluate the financing costs related to the cost estimate which would be a component of the pro-forma revenue analysis. Further, regarding the legal and financial relationships between the parties, the staff must evaluate the aggregate risk of the funding portfolio, as well as the individual sources of funds.

- 3. *In order to provide financial support during operations, provisions are made in the Financial Closing for the following to be maintained upon initial plant operation (1) a debt service Reserve in an amount not less than one year's worth debt service payments; and (2) a revolving credit facility of at least \$100 million for operating and maintenance expenses, with a Lenders' requirement that a zero balance be maintained at least once per year.***

Although the staff would likely require conditions to ensure sufficient funds for operations, the proposed license condition does not address funding contingency amounts which would be required for the period of construction. Although a debt service reserve and credit facility may some circumstances meet the guidance of NUREG-1577 for the “period of operations” (see 10 CFR 50.33(f)(2)), without an assessment of the income statement and cash flow, the staff would not be able to determine if additional financial support may be needed. Furthermore, the staff would need to assess the creditworthiness of the entity providing the credit facility. Finally, based on a comparison of plants of similar design, \$100 million may be insufficient to provide sufficient contingency for cost overruns.

Enclosure 3 - References

SECY Papers

1. SECY-79-299, April 27, 1979, "Generic Issue of Financial Qualifications: Licensing of Production and Utilization Facilities," Agencywide Documents Access and Management System (ADAMS) Accession No. ML12236A723.
2. SECY-97-253, October 24, 1997, "Policy Options for Nuclear Power Reactor Financial Qualifications in Response to Restructuring of the Electric Utility Industry," ADAMS Accession No. ML12263A738.
3. SRM-SECY-97-253, January 15, 1998, "Policy Options for Nuclear Power Reactor Financial Qualifications in Response to Restructuring of the Electric Utility Industry," ADAMS Accession No. ML003752225.
4. SECY-98-153, June 29, 1998, "Update of Issues Related to Nuclear Power Reactor Financial Qualifications in Response to Restructuring of the Electric Utility Industry," ADAMS Accession No. ML12264A790.
5. SECY-02-0180, October 7, 2002, "Legal and Financial Policy Issues Associated with Licensing New Nuclear Power Plants," ADAMS Accession No. ML023600088.
6. SRM-SECY-02-0180, March 31, 2003, "Legal and Financial Policy Issues Associated with Licensing New Nuclear Power Plants," ADAMS Accession No. ML030900371.

Cases

7. *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 & 2), CLI-78-1, 7 NRC 1 (1978).
8. *Louisiana Energy Services, LP* (Claiborne Enrichment Center), CLI-97-15, 46 NRC 294 (1997).
9. *Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), CLI-00-13, 52 NRC 23 (2000).
10. *New England Coalition on Nuclear Pollution v. NRC*, 582 F.2d 87 (1st Cir. 1978).
11. *New England Coalition on Nuclear Pollution v. NRC*, 727 F.2d 1127 (D.C. Cir. 1984).

Federal Register Publications

12. Final Rule, *Part 50 – Licensing of Production and Utilization Facilities, Financial Qualifications*, 33 Fed. Reg. 9704 (July 4, 1968).

13. Proposed Rule, *Financial Qualifications; Domestic Licensing of Production and Utilization Facilities*, 46 Fed. Reg. 41786 (August 18, 1981).
14. Final Rule, *Elimination of Review of Financial Qualifications of Electric Utilities in Licensing Hearings for Nuclear Power Plants*, 47 Fed. Reg. 13750 (March 31, 1982).
15. Proposed Rule, *Elimination of Review of Financial Qualifications of Electric Utilities in Operating License Review and Hearings for Nuclear Power Plants*, 49 Fed. Reg. 13044 (April 2, 1984).
16. Final Rule, *Financial Information Requirements for Applications To Renew or Extend the Term of an Operating License for a Power Reactor*, 69 Fed. Reg. 4439 (January 30, 2004).

Statutes

17. Atomic Energy Act of 1954 as amended, 42 USC 2011 et. seq., Section 182.a.

Regulations

18. Title 10, US Code of Federal Regulations, *Energy*, Chapter 1, Nuclear Regulatory Commission, *passim*.

Other Documents

19. Letter from NEI, November 13, 2012, *Request for Commission Guidance to Clarify Application of Financial Qualifications Requirements in the Context of New Nuclear Plant Development by Merchant Generators*, Ellen C. Ginsberg, Esq., ADAMS Accession No. ML12334A187.
20. Transcript, *Financial Qualifications for Merchant Plant Combined License Applicants Public Meeting*, October 11, 2012, ADAMS Accession No. ML12291A816 (ADAMS Accession No. ML12286A282 package).
21. Transcript, *Public Meeting on Financial Qualifications for Merchant Plant Combined License Applicants*, January 8, 2013, ADAMS Accession No. ML13022A446 (ADAMS Accession No. ML13009A008 package).

Enclosure 4 – Detailed Discussion of Option 2 Approaches

As stated in the body of the paper, several approaches to the staff's recommended rulemaking option were developed. The detailed discussion of these approaches, including their benefits and detriments, is provided below.

Approach A: Rulemaking to Rescind Financial Qualifications Requirements for Initial Licensing¹

Since the initial promulgation of the financial qualifications demonstration regulations, the NRC's programs and processes for ensuring safe plant operation have matured and become more robust. Individually and collectively, these processes and programs provide a vigorous framework for ensuring the safe operation of all plants – utilities and merchant plants alike.

This recognition of the efficacy of direct methods for ensuring plant safety has existed in Commission precedent for nearly 35 years. The Commission observed in 1979 in its *Seabrook* decision that "recent experience does not suggest that a utility short of funds will cut corners on safety. In the past few years, many utilities in the process of constructing nuclear facilities have experienced unforeseen financial difficulties. Common responses have been to slow down construction or to suspend construction altogether."² In 1981, the Commission stated that:

[T]echnical reviews and inspection efforts are effective, direct methods of discovering deficiencies that could affect the public health and safety. While analysis of financial qualifications has been viewed in the past as possibly an additional method of determining an applicant's ability to satisfy safety requirements, experience has failed to show a clear relationship between the NRC's review of an applicant's financial qualifications and the applicant's ability to safely construct and operate a nuclear power plant.³

The construction experience of the 1970's and 1980's similarly does not support the idea that there is a link between the review of financial qualifications and safety.

As a result of lessons learned from years of plant operating experience, as well as from the accidents at Three Mile Island and Chernobyl, the NRC developed and implemented a number of direct method programs and processes to further ensure plant safety. These include the resident inspector program, the operating experience program, the construction reactor

¹ To reiterate, this option is limited to initial licensing only. If the Commission selects a rulemaking option, the scope of the rulemaking would require careful review to ensure no adverse effects on financial qualifications determinations in other contexts, such as decommissioning funding and license transfers.

² *Seabrook*, CLI-78-1, 7 NRC at 19.

³ "Financial Qualifications: Domestic Licensing of Production and Utilization Facilities," 46 Fed. Reg. 41786, 41788 (Aug. 18, 1981).

oversight process (cROP), the reactor oversight process (ROP), the vendor inspection process, and a quality assurance inspection program.

Moreover, given the stringent nature of NRC's regulations and rigorous license application review, the process of preparing an application capable of meeting those requirements arguably reflects on whether an applicant is financially prepared to construct and operate the facility. Preparing a docketable application, and engaging in the licensing process in and of itself already provides some indication of an applicant's financial capacity.

The current regulatory framework distinguishes between electric utilities and merchant plants. Current regulations impose a significantly heavier burden on merchant plants to demonstrate financial qualifications. The reasoning is that utilities recover money through rate setting, and thus do not face the same type of financial pressures as merchant plants, presumably reducing the disincentives that such financial pressure might be assumed to create with respect to spending money on ensuring safety. While it is certainly true that nuclear plant operators may choose not to spend money on safety measures, there is no evidence to support the idea that nuclear plant operators choose not to spend money on safety measures because they are short on funds. In particular, there is no evidence to support the notion that electric utilities, with guaranteed rate recovery, are more likely to spend money on safety measures.

The advent of the divestiture of nuclear plants coincides with the beginning of the Reactor Oversight Process.⁴ By the end of 2007 there were 56 operating electric utilities and 48 operating merchant plants.⁵ A review of the NRC docket since 2007 indicates that there have not been any further transfers of nuclear power plants from electric utility to merchant status. A review of the ROP historical performance data demonstrates that no merchant plants have entered the "multiple degraded cornerstone" category, nor have they been subject to the 0350 process.⁶ By contrast, since 2000, nine electric utility plants have been in the multiple degraded cornerstone category, and two have been subject to the 0350 process.⁷ While the ROP does not include direct measurement of a licensee's finances and thus does not directly compare financial health with safety concerns at a facility, there does not appear to be a significant correlation between whether a plant is an electric utility or a merchant plant and whether the plant will be in the "degraded cornerstone" category. If there is any correlation, the merchant plants are slightly less likely to be in the degraded cornerstone category. The percentage of

⁴ The first nuclear plant was divested in July, 1999. See Deregulation, Consolidation, and Efficiency; Evidence from U.S. Nuclear Power; Lucas Davis and Catherine Wolfram, August 2011, HASS WP217 (Revised Version Forthcoming in Journal of Economic Perspectives), Appendix Table 1. (http://ei.haas.berkeley.edu/pdf/working_papers/WP217.pdf).

⁵ *Id.* The merchant plants are listed in the appendix referenced in footnote 13 of the Davis paper. The number of utilities is derived by subtracting the number of merchant plants from 104.

⁶ The 0350 process refers to plants subject to oversight pursuant to inspection manual chapter 0350, "Oversight of Reactor Facilities in a Shutdown Condition due to Significant Performance and/or Operational Concerns."

⁷ Two plants, Indian Point 2 and Perry 1 were divested while they were in the multiple repetitive degraded cornerstone category.

electric utilities in the “degraded cornerstone” category ranged from a low of 4 percent to a high of 20 percent.⁸ Since 2000 there have been 4 years where no merchant plants were in the “degraded cornerstone” category, and the year that had the highest percentage of the merchant plants in the “degraded cornerstone” category resulted in 10 percent of the merchant plants being in that status. Therefore, evidence suggests that merchant plant performance may exceed that of electric utility performance over the time frame reviewed.

These data from the ROP are consistent with some recent academic research. One recent academic study indicates that the current fleet is operating more safely after deregulation than before. The study states that:

[i]n the past two decades, a dramatic change to the nuclear power industry has taken place: approximately half of all U.S. nuclear power plants have been sold off by price-regulated utilities and now operate in competitive markets. Surprisingly, there is little evidence on how ownership transfers have affected safety. ... Using data on a variety of safety measures ..., [the paper concluded that] no evidence [existed] that safety deteriorated; for some measures, it even improved following divestiture. Moreover, for given levels of generation, safety substantially improved. Ownership transfers led to the alignment of private incentives to increase operating efficiency, and these gains do not appear to have come at the cost of public safety.⁹

Pros and Cons

The primary advantage to this option is that it allows the Commission to focus on its primary mission of safety, and focuses resources on “direct methods of discovering deficiencies.” It also directly addresses the efficacy challenge created by the one-time, pre-licensing, financial qualifications review for those COL-holders that choose to defer construction, and it directly addresses the merchant plant “impediment to licensing” asserted to exist by industry. Since financial qualifications rules were initially promulgated, the Commission’s programs and processes for ensuring plant safety have continued to improve. To the extent that a nexus exists between a demonstration of financial qualifications and safety, rescission of the current financial qualifications determination regulations would not result in a decrease in safety because these more direct activities would continue to uncover any safety deficiencies during construction and subsequent operation that might occur for whatever reason.

⁸ Since the number of merchant plants and electric utilities vary from year to year the raw numbers are not a useful measure. So the numbers are presented as percentages; i.e., 20 percent of electric utilities in the “degraded cornerstone” category means that in one year, 20 percent of all electric utility plants spent at least one quarter in the degraded cornerstone category.

⁹ Hausman, Catherine, *Corporate Incentives and Nuclear Safety*, WP223R, March 2013. This paper is part of the Energy Institute at Haas working paper series. Energy Institute at Haas is a joint venture of the Haas School of Business and the UC Energy Institute. Ms. Hausman is a PhD candidate in Agricultural and Resource Economics and research assistant at the University of California, Berkeley. Used with permission of the author. (http://ei.haas.berkeley.edu/pdf/working_papers/WP223.pdf).

This approach is also consistent with Executive Orders 13563 and 13579, which recommended that agencies review existing regulations and determine how existing regulations can be made more effective or less burdensome while achieving regulatory objectives.

The current approach has been in place since 1956 and is one part of the NRC's overall conservative approach to ensuring safe plant operation. The primary disadvantage of Approach A is that, by rescinding the Commission's financial qualifications demonstration regulations, there may be public perception challenges that the Commission is sacrificing safety for applicant expediency and that the financial qualifications review will no longer be an additional method of ensuring safety.

Approach B: Rulemaking to Amend Financial Qualifications to an Ongoing Oversight Indicator

As stated in the summary above, this rulemaking approach would end financial qualifications reviews as a component of an initial licensing decision in lieu of post-license activities to monitor the overall financial health of the licensee over the construction and operating life of the plant. This post-license monitoring would be a new mechanism of oversight;¹⁰ the sole licensing-basis financial review.

Indicators of financial distress would be used to trigger licensee engagement to explore whether such financial distress has any implications for safe construction or operation of the plant. Certain measures of financial distress could be set forth in staff guidance. Additionally, there could be dialogue between NRC financial reviewers, NRC regional offices, and licensees, as appropriate, to ensure the staff is made aware of any licensees experiencing financial distress. Examples of such indicators might be Securities and Exchange Commission filings indicating significant losses, loss of power purchasing clientele, or significant market adjustments that undermine the value of the power produced. These indicators would inform the staff's ongoing review and oversight of construction and operational activities.

It would be necessary for the staff to develop detailed guidance to identify and validate the "indicators" that would signify financial stress and trigger licensee engagement. This approach would entail revising 10 CFR 50.33 and Part 50, Appendix C, to reflect this revised process.

Pros and Cons

As with Approach A, the primary benefits of this approach would be that it would focus Commission resources on the resolution of safety issues, and ensure that licenses are not denied for non-safety reasons. It would also allow for resolution of the concerns about the timeliness of financial qualification demonstrations with respect to COL holders that may "bank" their licenses for future construction.

¹⁰ Under the current financial qualifications rules, the NRC may request, post-license and, on a case-by-case basis, "information regarding a licensee's ability to continue the conduct of the activities authorized by the license and to decommission the facility". (10 CFR 50.33(f)(5)).

To the extent any nexus exists between financial qualifications demonstration and safety, this option allows for increased review and monitoring. This approach may counteract any public perception that the NRC is relaxing its oversight requirements to the detriment of safety.

The primary detriment with this approach is the subjective nature of open source financial information¹¹ and the challenges of correlating how that data relates to safe construction and operation of the plant. Such data is not necessarily performance based, it is subject to interpretation that may lead to a staff decision based on false positives or false negatives, and it is inherently complex. Further, identifying indicators of financial stress and validating the quality of those indicators would be challenging. It would be necessary for the NRC to develop guidance that could be objectively applied to such information to ensure its relevance before engaging a licensee. Such guidance may also have to identify what an appropriate level of financing is such that it could be determined when a licensee is in financial distress. Financial indicators currently used by the NRC to evaluate the efficacy of licensee decommissioning funding may be useful guidance under this option. Finally, even in those cases where the open source financial information is relevant and properly validated, such data, standing alone, may not be predictive of any adverse impact on the safety or security of the plant.

Approach C: Rulemaking to Conform Reactor Financial Qualifications Requirements to 10 CFR Part 70 Standards

This approach would require the Commission to amend the 10 CFR Part 50 financial qualifications regulations to change the pre-licensing standard of financial qualifications review to one that would allow licensing based on a less-detailed financial plan, and facilitate the use of license conditions similar to those previously found acceptable by the Commission in nonreactor contexts.

The current 10 CFR Part 50 standard of review for new reactor financial qualifications is one of “reasonable assurance.” Specifically, 10 CFR 50.33(f) states that that applicants “shall submit information that demonstrates that the applicant possesses or has *reasonable assurance* of obtaining the funds necessary to cover estimated construction costs and related fuel cycle costs [and] estimated operation costs for the period of the license.”¹² (Emphasis added). The detailed information necessary to support a reasonable assurance standard is defined for applicants in Appendix C of 10 CFR Part 50. Absent this detailed information, a determination of financial qualification is not possible pursuant to the current regulations. Furthermore, under the current 10 CFR Part 50 regulations, the use of a license condition to mitigate the lack of identified funding is problematic because any contemplated license condition—including that

¹¹ In this context, “open source financial information” is defined as regulatory filings such as those made to the Securities and Exchange Commission (SEC) and the Federal Energy Regulatory Commission (FERC).

¹² 10 CFR 50.33(f)(1)-(3).

proposed by NEI/NINA—cannot be satisfied by operation of a “ministerial act.”¹³ The complexity of the information required under current regulations would, most likely, require a substantive post-licensing review of that information to satisfy the condition. Such a substantive post-licensing review undermines the pre-licensing “reasonable assurance” financial qualifications determination, and it is inconsistent with the one-step licensing process required for COLs.

However, license conditions were used in both Private Fuel Storage and Louisiana Energy Services (LES) (*Claiborne Enrichment Facility*) as a method to fulfill the financial qualifications requirements. In both of these cases the applicants were not subject to 10 CFR Part 50 and did not need to meet the detailed Part 50 Appendix C requirements.¹⁴ Under 10 CFR Part 70, “Domestic Licensing of Special Nuclear Material,” the financial qualifications standard of review is that of “appears to be financially qualified”.¹⁵ This standard is less stringent than the “reasonable assurance” demonstration currently in Part 50, Appendix C.

If, under this rulemaking approach, the requirement in Appendix C of 10 CFR Part 50 for detailed submittal of financial information was removed and the Part 50 financial qualifications regulatory language was conformed to the 10 CFR Part 70 financial qualifications review standard, legally viable license conditions would be possible for those applicants with no identified pre-licensing sources of funds. Such an approach would not need to use identical license conditions to those found in PFS/LES.¹⁶ Rather, the regulation could require the applicant to submit a plan for how it intended to finance the construction and operation of the facility. The purpose of submittal of this plan would not be to ensure, as the current Appendix C requirements do, that an applicant currently had access to financing. Rather, it would ensure that the applicant had both a well-articulated understanding of the size of the project it was undertaking, and the financial capacity to obtain the necessary financing when it was ready to begin construction. License conditions, which would be ministerial in nature, could then be used to ensure that the plan was executed prior to beginning construction. This approach could thereby remain consistent both with Commission precedent on the use of solely “ministerial” license conditions and with the requirement that safety findings for a COL not be deferred to a later stage. The intention to use license conditions to fulfill this requirement could be set forth in the statements of consideration or in the rule text itself.

¹³ “[W]e must insist that the condition be precisely drawn so that the verification of compliance becomes a largely ministerial act rather than an adjudicatory act – that is, the Staff verification efforts should be able to verify compliance without having to make overly complex judgments ...” *Private Fuel Storage, LLC*, CLI-00-13, 52 NRC 23, 34 (2000).

¹⁴ *Louisiana Energy Services, LP* (Claiborne Enrichment Center), CLI-97-15, 46 NRC 294, 299-300 (1997); and *Private Fuel Storage, LLC*, CLI-00-13, 52 NRC at 29-30. PFS is licensed pursuant to Part 72, which does not contain the detailed Appendix C requirements.

¹⁵ See 10 CFR 70.23(a)(5).

¹⁶ For example, in *Private Fuel Storage, LLC* the applicant was required to submit sample contracts with licensees. Such sample contracts would not be necessary with a revised regulation.

Pros and Cons

The primary benefit of this rulemaking approach is that it would provide for some intermediate level of financial qualification review if the Commission does not wish to completely eliminate such a review at the licensing stage. By requiring initial license applicants to describe (and the NRC staff to review) their financial plans with respect to construction and operation of the facility, it would also provide a mechanism for those applicants with insufficient or no identified sources of funding to receive an appropriately conditioned license and thereby resolve the industry asserted impediment to initial license issuance, while still ensuring a degree of NRC oversight of financial qualifications that the Commission considers appropriate to maintain safety. For those applicants with identified funding, the information requirements for the application would be modified to align with the lesser level of detail required by 10 CFR 70.23(a)(5). Legally sufficient license conditions could be crafted consistent with the AEA, Commission regulations, Commission precedent, and established NRC guidance.

The primary detriment of amending the pre-license financial qualifications review to conform with the 10 CFR Part 70 standard of review would be the practical difficulties in implementing this changed standard for reactor licensees. Determining the range of what could constitute an acceptable plan for an initial reactor licensee, and what an appropriate license condition would be, is likely to be challenging. Secondly, as with Approach A, there is the potential for adverse public perception that the Commission is relaxing regulatory requirements to the detriment of safety. Moreover, to the extent the Commission does not believe that a financial qualification review is necessary to maintain safety, this change would create a regulatory burden on licensees without a corresponding safety benefit.

Non-Concurrence Approach

In the non-concurrence filed on May 13, 2013, another rulemaking approach was suggested.¹⁷ This approach would entail deferring the financial qualifications demonstration review to a time, after COL issuance, but before the commencement of construction. This approach would require the COL holder, before beginning construction, to 1) obtain adequate financing of construction and operating costs, and 2) certify that the funding will comply with the restrictions against foreign ownership, domination, and control required by 10 CFR 50.38. This approach does not appear to be legally viable because a post-licensing substantive review is not a “ministerial act”. A financial qualifications rule change that creates a post-licensing review and corresponding hearing opportunity undermines the rationale behind Part 52 by returning the licensing process for merchant plants to a two-step process – step one being the issuance of the COL itself followed by, in step two, a financial qualifications review that, depending on the outcome, could delay construction or negate the COL.¹⁸

¹⁷ See Enclosure 1 at page 6 of 25 in the section titled “*If the Commission decides to revise its existing policies applicable to new merchant transmission projects, it should consider maintaining financial qualifications in the NRC licensing basis.*”

¹⁸ Some staff members have expressed concern that, given the license renewal rule discussed above, deviation from the status quo might create differing financial qualification standards between initial licensing

Additional Considerations Relevant to All Rulemaking Approaches

There are several additional considerations relevant to all three of the rulemaking approaches presented in this document. First, in any rulemaking approach undertaken, there is a need to consider whether certain classes of licensees—nonpower reactor licensees, for example—should be excluded from any changes made to 10 CFR Part 50 financial qualifications demonstration requirements. In many cases, nonpower reactors are research and test reactors (RTR's) that are operated by universities or other entities. These RTRs do not have either a rate-payer base or the ability to sell power for profit and, thus, their financial paradigm is different from the power reactor scenarios discussed in this paper.

Second, it will be necessary in any rulemaking approach pursued to consider whether financial qualifications regulatory changes should be applied equally to initial licensing of electric utility applicants and whether such changes should be applied to license transfer reviews.

Third, a careful examination of decommissioning funding regulations must be made as part of any rulemaking efforts to ensure that there are no emergent and unintended consequences that would undermine or erode those decommissioning funding rules.

Fourth, changes to financial qualifications demonstration requirements for reactors may elicit similar requests for relief by nonreactor applicants and licensees.

Finally, with regard to current merchant plant applicants, consideration of the use of exemptions from current financial qualifications demonstration regulations for those applicants during the pendency of the rulemaking process would be necessary. If the Commission directs the staff to undertake rulemaking as discussed in Option 2, any exemption requests would not be reviewable until a clear rulemaking approach is determined. Given that any rulemaking effort contemplated would likely take 3 to 5 years to complete, current applicants may find their applications stalled—until public comments from the proposed rule are received and evaluated—if no clear basis for granting an exemption is evident. As discussed below, the staff has concluded that the recommended option is to undertake rulemaking. If the Commission chooses to narrow the scope of the rulemaking approach to one of the three suggested approaches, the benefit of that narrowed scope may be that a basis for granting applicant exemption requests from current financial qualifications regulations may exist earlier. The timeline of the rulemaking effort itself may also be abbreviated. Alternatively, narrowing the scope of the rulemaking approaches may foreclose consideration of some of the other viable approaches discussed above.

and license renewal unless extensive change is made to the regulatory framework. Such concerns, if identified, can be addressed as part of the rulemaking process should the Commission direct the staff to pursue the rulemaking option.