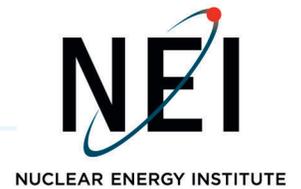


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April 17, 2015

Dr. Steven P. Croley
General Counsel
U.S. Department of Energy
Mailstop GC-1, 1000 Independence Avenue, SW
Washington, DC 20585

Subject: Comments of Nuclear Energy Institute, Inc. re Convention on Supplementary Compensation for Nuclear Damage Contingent Cost Allocation
Docket Number: DOE-HQ-2014-0021 – RIN 1990-AA39

Dear Dr. Croley:

The Nuclear Energy Institute, Inc. (“NEI”)¹ appreciates the opportunity to provide comments on behalf of our members in response to the U.S. Department of Energy’s (“the Department” or “DOE”) December 17, 2014 Notice of Proposed Rulemaking (“NOPR”) (79 Fed. Reg. 75076) to establish the framework for the retrospective risk pooling program through which the federal government would be reimbursed if a call for funds were made under the Convention on Supplementary Compensation for Nuclear Damage Contingent Cost Allocation (“CSC”). This rulemaking implements Section 934 of the Energy Independence and Security Act of 2007 (“EISA”), which not only authorizes DOE to promulgate such regulations but also directs DOE to consider risk factors in developing the formula for allocation of supplier liability. We appreciate the Department’s extension of the public comment period from March 17, 2015 until April 17, 2015.

As DOE recognizes, the retrospective risk pooling program required by the EISA has the potential to significantly affect U.S. nuclear supplier exports. NEI, on behalf of its members in the domestic nuclear supplier community, submitted extensive comments in 2010 in response to DOE’s Notice of Inquiry. Our comments emphasized, among other views, that DOE needed more data before an equitable and implementable program could be structured, and identified a number of specific features that the risk pooling program should include.

¹ NEI is the organization responsible for establishing unified industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI’s members include all entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms and other nuclear suppliers of goods and services, fuel fabrication facilities, nuclear materials licensees, and other organizations and entities involved in the nuclear energy industry. As such, NEI has a strong interest in the development of a clear, workable, equitable DOE final rule.

We continue to be concerned about the dearth of specific information and supporting detail in the NOPR. As is explained in NEI's comments, we are advocating that DOE substantially revise the DOE proposed rule in light of the following:

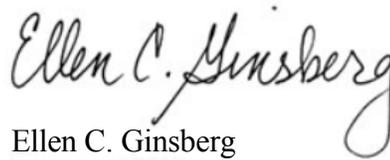
- The complexity of DOE's proposed alternatives and the lack of material information needed for companies to evaluate and compare them prevent meaningful public comment on the proposed rule. Accordingly, the industry believes neither DOE proposed alternative should be pursued in its current form.
- The NOPR does not provide a basis for key factors and assumptions, such as the allocation of risk among industry sectors and risk weighting factors for different types of goods and services.
- The NOPR proposes a complex information collection and reporting system (in some cases requiring information on transactions dating as far back as 1960) that will be costly, cumbersome, and time-consuming for both DOE and suppliers to implement. The scope of the reporting obligation is also overly broad in that "reportable transactions" include relevant transactions by covered nuclear suppliers to any nuclear installation outside the U.S., whether or not located in a CSC member state.
- The NOPR provides insufficient information on other material terms such as the "cap" on a supplier's liability for retrospective premium payments.
- The NOPR does not provide sufficient information for suppliers to ascertain whether (and, if so, how) they would be able to manage any contingent liability through insurance.
- The proposals in the NOPR appear likely to discourage both existing nuclear export suppliers and potential new entrants into the global marketplace. Rather than helping to level the playing field as directed by the National Export Initiative, promulgation of this NOPR as a final rule would simply add to the burden on U.S. nuclear exporters. Other countries that export nuclear technology are not imposing a corresponding burden on their nation's nuclear suppliers, leaving U.S. nuclear suppliers at a distinct disadvantage compared with their foreign competitors.

We appreciate DOE's willingness to consider modifications to the NOPR proposals, and "conduct additional data and information gathering" based upon concerns expressed by stakeholders. *See* 80 Fed. Reg. 12352-53 (Mar. 9, 2015). Given that need, our comments recommend that, rather than proceeding directly from the NOPR to a final rule, DOE instead collect and share that information with public stakeholders for further comment. We further request that DOE publish a supplemental proposed rule but not retain the current proposed Alternatives 1 and 2 in that supplemental NOPR. Rather, we ask DOE to consider the retrospective risk pooling approach and industry model proposed in these comments, or one that is similar.

Should you have questions or require additional information relating to these comments, please contact me. NEI looks forward to working with the Department to promulgate an equitable, transparent, and workable final rule to implement EISA Section 934.

Dr. Steven P. Croley
April 17, 2015
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Sincerely,


Ellen C. Ginsberg

cc: Anita Capoferri, Esq., DOE OGC
Sophia Angelini, Esq., DOE OGC

COMMENTS OF THE NUCLEAR ENERGY INSTITUTE, INC.

on

**DOE NOTICE OF PROPOSED RULEMAKING ON THE
CONVENTION ON SUPPLEMENTARY COMPENSATION FOR
NUCLEAR DAMAGE CONTINGENT COST ALLOCATION**

Docket Number DOE-HQ-2014-0021;

Regulatory Information Number 1990-AA39

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COMMENTS OF THE NUCLEAR ENERGY INSTITUTE, INC.
on
DOE NOTICE OF PROPOSED RULEMAKING ON THE CONVENTION ON
SUPPLEMENTARY COMPENSATION FOR NUCLEAR DAMAGE
CONTINGENT COST ALLOCATION
(Docket Number DOE-HQ-2014-0021; Regulatory Information Number 1990-AA39)

I. INTRODUCTION

The Nuclear Energy Institute, Inc. (“NEI”)¹ appreciates the opportunity to comment on the U.S. Department of Energy’s (“DOE” or “the Department”) notice of proposed rulemaking (“NOPR”) on the *Convention on Supplementary Compensation for Nuclear Damage Contingent Cost Allocation*, published December 17, 2014 (79 Fed. Reg. 75076) (Docket Number DOE-HQ-2014-0021; Regulatory Information Number 1990-AA39).²

The Convention on Supplementary Compensation for Nuclear Damage (“CSC” or “Convention”) “provides the basis for a global nuclear liability regime where victims of nuclear incidents are provided prompt and meaningful compensation and suppliers in the nuclear energy industry are provided consistent rules for dealing with legal liability.” 79 Fed. Reg. 75077. The CSC establishes a means to compensate victims of a nuclear incident using a two-tiered approach. The first tier of compensation is provided by the member State where the nuclear incident occurs (the installation state), and is set by the Convention at a minimum of 300 million Special Drawing Rights. If that amount is insufficient, a second tier of compensation is funded through contributions by other CSC member states to a supplementary fund. The amount of the second tier of compensation required by a given member state or “party” for any qualifying incident is determined by a formula in the CSC.

With the enactment of the Energy Independence and Security Act (“EISA”) of 2007, Congress obligated U.S. nuclear suppliers to fund this second tier of compensation through reimbursement of the federal government if a call for a U.S. contribution is made. Additionally, the Department became responsible for developing a retrospective risk pooling program to allocate the amount of the reimbursement from domestic nuclear suppliers. The overriding purpose of the retrospective risk pooling program established by EISA is to allocate the contingent costs “equitably, on the basis of risk, among the class of nuclear suppliers relieved by the Convention from the risk of potential liability resulting from any covered incident outside the United States.”³ 79 Fed. Reg. 75077-78.

¹ NEI is the organization responsible for establishing unified industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI’s members include all entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms and other nuclear suppliers of goods and services, fuel fabrication facilities, nuclear materials licensees, and other organizations and entities involved in the nuclear energy industry. As such, NEI has a strong interest in the development of a clear, workable, equitable DOE final rule.

² These comments are timely filed. The NOPR originally imposed a comment deadline of March 17, 2015. 79 Fed. Reg. 75076, 75077 (Dec. 17, 2014). In response to NEI’s January 28, 2015 request for a 60-day extension of the comment period, and similar requests from other entities, the Department granted a 30-day extension of the comment period until April 17, 2015. See 80 Fed. Reg. 12352 (March 9, 2015).

³ EISA § 934(a)(2)(B); see 79 Fed. Reg. 75077-78.

EISA's assignment of liability for repayment of the government's contribution to the supplementary fund thus creates a significant contingent financial burden for domestic suppliers. DOE estimates that the United States could owe approximately \$67 million (plus costs and interest) when the Convention comes into force initially; this estimate assumes there are only six parties to the CSC. To date, the contracting parties (countries) to the CSC are Argentina, Japan, Morocco, Romania, United Arab Emirates, and the United States.⁴ If all of the 30 countries with nuclear operating capacity as of 2014 have joined the CSC at the time of a qualifying incident, DOE estimates that the U.S. would be required to contribute more than twice that amount – approximately \$150 million. *Id.*, note 5.

DOE initiated this rulemaking to satisfy its obligation under EISA in 2010 with a Notice of Inquiry ("NOI"). 75 Fed. Reg. 43945 (July 27, 2010). That NOI elicited many comments from NEI and others, generally emphasizing the importance of DOE's obtaining additional information and data as a prerequisite to structuring an equitable, practical, risk-based cost allocation framework. While the NOPR demonstrates the clear effort DOE made to address many of the comments NEI and others submitted in response to the NOI, and the industry fully appreciates the challenge that EISA implementation presents, there is considerably more work to be done before the Department finalizes a rule that could impose potentially millions of dollars of liability on a number of domestic suppliers participating or seeking to participate in the international market.

As discussed at length herein, as an initial matter, DOE should collect additional information so as to define material terms/values to be included in a proposed allocation method. DOE also should publish the information/terms/values as part of a (substantially revised) supplemental NOPR.⁵ In taking those steps, DOE would fulfill its legal obligation under EISA and the Administrative Procedure Act, and those suppliers potentially subject to the contingent liability would be able to reasonably analyze the bases for the proposed allocation method and determine its impacts.

II. OVERVIEW OF NEI PERSPECTIVE ON THE NOPR

NEI and industry members fully appreciate the value of the CSC, which replaces potentially open-ended supplier liability with a more predictable global nuclear liability regime based on the CSC's adoption of economic channeling in the event of a nuclear incident. We also appreciate the efforts of the U.S. government to encourage other countries to ratify the Convention and thereby bring it into force. The CSC creates a significant benefit for nuclear suppliers in the U.S.

⁴ This and other key assumptions are set forth at 79 Fed. Reg. 75078, note 3. In that footnote, DOE's estimate of potential U.S. liability of \$67 million when the CSC comes into force assumes that the six parties to the CSC are *Argentina, Canada, Japan, Morocco, Romania, and the United States*. This appears inconsistent with the current list of contracting parties to the CSC: *Argentina, Japan, Morocco, Romania, United Arab Emirates, and the United States*.

⁵ NEI's comments, including its alternative risk allocation model, are submitted on behalf of those NEI member companies potentially subject to the EISA's allocation of the U.S. contingent cost obligation under the CSC. Although NEI's comments reflect a general consensus among its broad base of supplier members, there may remain some differences of opinion or emphasis that may be explored in separate comments by individual companies who may be uniquely affected by aspects of the NOPR or NEI's proposed approach.

who wish to participate in the rapidly growing global nuclear market. IAEA estimates that 66 nuclear units are currently under construction around the world and 165 new plants are in the licensing or advanced planning stages.⁶ U.S. companies in the nuclear supply chain should be positioned to help meet this expected demand.

As discussed in DOE's February 2015 workshop on the NOPR, in order to gain the full value of the CSC, the rule implementing EISA must not create a competitive disadvantage for U.S. nuclear suppliers. The reality is that U.S. nuclear suppliers will be competing with suppliers from other countries whose governments do not require industry reimbursement if a CSC call is made. Further, some of these competitors are owned or supported by their government. The program implementing EISA should be structured to encourage U.S. nuclear suppliers to pursue international business opportunities, not dissuade them from entering into or remaining in the expanding international nuclear market. The participation of domestic nuclear suppliers in foreign nuclear power projects, and particularly in emerging markets, is beneficial not only for its contribution to the U.S. economy through creation of jobs and indirect benefits, but also because U.S. supplier participation will promote nuclear safety and security in countries throughout the world.

NEI recognizes the difficulty of developing regulations consistent with EISA's directives, and appreciates the Department's efforts to develop a proposed rule that meets a number of challenging criteria. To that end, the NOPR proposes two alternative formulas for calculating the retrospective premium payments, presumably with the intent of eventually selecting the least burdensome and most predictable alternative that comports with the EISA. Alternative 1 would assess risk based on the type of nuclear goods and services supplied. This formula would assign a higher risk (through use of a risk weighting factor of 2) to "primary" nuclear items and services listed in Appendix A to the rule, such as Nuclear Steam Supply System components, as compared with "secondary" items and services (listed in Appendix B). *See* 79 Fed. Reg. 75083-85. By contrast, Alternative 2 would assess risk based on the industry sector (Facility, Equipment and Technology, Nuclear Material and Nuclear Material Transportation, and Services) into which a supplier falls. *See* 79 Fed. Reg. 75085-87.

Under both of DOE's proposed alternatives, a nuclear supplier's retrospective premium payment is based on that supplier's "risk share." An individual supplier's risk share, in turn, is a function of the "total risk exposure of all covered suppliers," which depends on the aggregate value of covered transactions of all nuclear suppliers. Notably, however, in neither case can suppliers determine their premium payment because the NOPR provides insufficient information to calculate the denominator in the equation.

As emphasized in NEI's statement and in the proposed questions/discussion topics we submitted in response to DOE's request prior to the February 2015 workshop, the absence of specific information and supporting detail in the NOPR as well as the absence of a regulatory analysis make it virtually impossible for suppliers to meaningfully evaluate their potential liability or its equity under the proposed alternatives. This additional data (*e.g.*, the total number of affected

⁶ World Nuclear Power Reactors & Uranium Requirements, World Nuclear Association, April 1, 2015, <http://world-nuclear.org/info/Facts-and-Figures/World-Nuclear-Power-Reactors-and-Uranium-Requirements/>.

nuclear suppliers, aggregate value of all covered transactions) is essential for stakeholders to assess retrospective risk pooling approaches and ensure a workable and equitable rule. More specifically, we believe the DOE rulemaking package requires substantial revision in light of the following:

- The complexity of DOE’s proposed alternatives and the lack of material information needed for companies to evaluate and compare them prevent meaningful public comment on the proposed rule. The industry believes neither of the proposed alternatives should be pursued in its current form.
- The NOPR does not provide a technical basis for key factors and assumptions, such as the allocation of risk among industry sectors, and risk weighting factors for different types of goods and services.
- The NOPR provides insufficient information on other material terms such as the “cap” on a supplier’s liability for retrospective premium payments.
- The NOPR proposes a complex information collection and reporting system (in some cases requiring information on transactions dating as far back as 1960) that will be cumbersome, time-consuming for both DOE and suppliers to implement, and unnecessarily costly. The scope of the reporting obligation is also overly broad in that “reportable transactions” include transactions by covered nuclear suppliers to any nuclear installation outside the U.S., whether or not located in a CSC member state.
- The NOPR does not provide sufficient information for suppliers to ascertain whether (and, if so, how) they would be able to manage any contingent liability through insurance.
- The proposals in the NOPR have the potential to discourage both nuclear suppliers from continuing to participate and potential new entrants from competing in the global marketplace. Rather than helping to level the playing field as directed by this administration in its National Export Initiative, promulgation of either of the alternatives DOE proposes as a final rule would excessively add to the burden on U.S. nuclear exporters. Other countries that export nuclear technology are not imposing a corresponding burden on their nation’s nuclear suppliers, leaving U.S. nuclear suppliers at a distinct disadvantage compared with their foreign competitors.

During the January and February 2015 DOE public workshops as well as in other public interactions, DOE indicated its willingness to consider modifications to the proposals in the NOPR based upon stakeholder concerns. DOE’s March 9, 2015 Notice of Extension of the Comment Period on the NOPR recognizes that further consideration should be given to many issues: (1) the extent, if any, to which transactions prior to the effective date of the rule should be considered in the allocation formula; (2) the justification for capping the allocation assigned to a single entity; (3) the possibility of different caps for different types of suppliers; (4) the criteria for classifying a supplier as a small entity exempt from the allocation formula; (5) goods and services that pose no or *de minimis* risk of triggering the international supplementary fund; (6) alternative methodologies for evaluating risk, including examples of existing risk allocation

mechanisms in the nuclear industry; and (7) potential modification to simplify, minimize, and clarify the burden on industry. 80 Fed. Reg. 12352-53 (Mar. 9, 2015).

DOE also has stated its intention to “conduct additional data and information gathering in response to and in consideration of statements in the written comments and at the public workshop. These statements suggest certain additional information should be obtained by DOE and is necessary for the public to comment on the NOPR.” *Id.* at 12353. DOE has asked commenters to specify the additional information they believe is needed, and has posed questions to assist the Department in its additional data gathering effort. *Id.* We respond herein to both requests. NEI comments on numerous issues in the NOPR are set forth in Section III and NEI’s industry proposal for a retrospective risk allocation program is set forth in Section IV.

Given DOE’s recognition of the need to “conduct additional data and information gathering” and make “potential modifications to the proposals set forth in the NOPR,” (*id.* at 12352-53), as well as to evaluate the answers received in response to the questions it has posed, we strongly suggest that, rather than proceeding directly from the NOPR to a final rule, DOE instead gather additional data and share that information with public stakeholders for further comment. We further request that DOE then publish a supplemental proposed rule after adoption of the retrospective risk pooling approach and model proposed by NEI, or one that is substantially similar. *See* Section IV, below.⁷

III. COMMENTS ON THE PROPOSED RULE

A. Failure to Provide Information Necessary to Evaluate the Proposed Rule

Because DOE will assess respective shares of the supplementary fund based on the risk allocation formula it develops to comply with EISA, it is of the utmost importance that the formula be based on sufficient and verifiable data. However, the NOPR lacks data or any dollar value for several of the terms most integral to the proposed allocation methods. That lack of information affects nuclear suppliers in several ways.

First, suppliers are unable to estimate their own risk of potential liability for CSC contingent costs. The proposed rule sets forth two formulas for calculating the retrospective premium payments (NOPR, Subpart B). However, the NOPR provides no estimate for one of the key variables – the “total risk exposure of all suppliers.” Defining this term is essential for suppliers to be able to calculate their potential liability under both of the alternative formulas in the NOPR. Under both alternatives, to calculate a nuclear supplier’s retrospective premium payment, the supplier would start by calculating its “risk exposure,” which is derived from the value or quantity of its covered transactions. The supplier then calculates its “risk share.” The risk share

⁷ NEI fully recognizes that Congress’ directives in the EISA create many of the difficulties addressed in our comments. To help address those difficulties, we urge DOE to seek amendments of EISA to the extent necessary to ensure that the risk pooling program does not disadvantage nuclear suppliers in the global market, unintentionally drive U.S. nuclear suppliers out of the nuclear business, or encourage them to move their nuclear business overseas. As noted in these comments, the participation of U.S. suppliers in nuclear power projects in emerging markets is critical to our national security interests, *i.e.*, promoting principles of international nuclear safety and security.

is determined by dividing the supplier's risk exposure by the "total risk exposure of all suppliers" (which depends on the aggregate value of covered transactions of all nuclear suppliers).⁸ Thus, this unknown variable – the total risk exposure of all suppliers – is the denominator of the equation for determining what portion of the CSC contingent cost is allocated to each supplier. This lack of data also impedes nuclear suppliers from determining whether Alternative 1 or Alternative 2 provides a more beneficial approach for their company.

Additionally, nuclear suppliers are unable to determine whether Alternative 1 or Alternative 2 allocates the contingent cost equitably on the basis of risk. Even if a supplier could quantify its own nuclear export activities, it could not determine its (or any other supplier's) potential liability for the U.S. government's contingent cost under the CSC due to the absence of information on the aggregate risk exposure. Without this critical information as to how the risk allocation methods will work, the industry and affected nuclear suppliers cannot meaningfully assess whether the rule as proposed would achieve the statutory goal of equitable allocation.

The absence of information defining material terms in the alternatives makes it virtually impossible for nuclear suppliers to evaluate the impacts of the proposed rule, which in turn precludes their ability to comment meaningfully on the NOPR. Under the Administrative Procedure Act ("APA"), an agency must provide interested persons with a meaningful opportunity to comment on proposed regulations. The NOPR does not satisfy this fundamental APA requirement because it fails to "apprise[] parties of the nature and basis of the regulation or rule sufficiently to enable them to understand and identify the material issues relating to the justification for the regulation or rule so that they can comment thereon intelligently." *Appalachian Power Co. v. E.P.A.*, 579 F.2d 846, 852-53 (4th Cir. 1978). *See also Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 394 (D.C. Cir. 1973) ("In order that rule-making proceedings to determine standards be conducted in orderly fashion, information should generally be disclosed as to the basis of a proposed rule at the time of issuance.").

B. Failure to Provide a Basis for Weighting Cost Allocation Formula Factors

DOE has not provided a sufficient basis for several of the key factors embedded in the proposed formulas for calculating the retrospective premium payment. The NOPR states that these factors, such as (a) the risk allocation among sectors in proposed Alternative 2, or (b) the risk weighting of "2" for Appendix A items (under proposed Alternative 1), are based on the Department's "experience," "expertise," or "knowledge," but cites no data or studies to support risk factors relied upon in the proposed formulas. *See, e.g.*, 79 Fed. Reg. at 75084, 75086–87. While we appreciate that DOE had a difficult task before it in crafting a proposal implementing EISA's directives, that does not relieve the Department from its obligation to support its proposal with an adequate technical basis and/or risk-based analysis. Where key aspects of a rule lack an adequate technical basis, the rule is arbitrary and capricious under the standards of the APA. As the D.C. Circuit has stated, "An agency commits serious procedural error when it fails to reveal portions of the technical basis for a proposed rule in time to allow for meaningful commentary." *Conn. Light & Power Co. v. NRC*, 673 F.2d 525, 530–31 (D.C. Cir. 1982).

⁸ Under Alternative 2, the denominator would be the total risk exposure of all suppliers in the relevant industry sector.

We recognize that the allocation of CSC contingent costs among nuclear suppliers may be imprecise to some extent, with some suppliers being required to pay proportionately more or less than the “true” costs associated with the risk of the items supplied. However, an agency may not develop an arbitrary standard – such as the risk allocation among sectors in proposed Alternative 2, or the risk weighting of “2” for Appendix A items in proposed Alternative 1 – without supporting information or analysis. On a related point with regard to NOPR Alternative 1, DOE has asked for comment on the risk ranking in the NOPR appendices. The appendices identify particular goods and services to which they assign a risk rating or ranking (primary or secondary) and a corresponding weight (2 or 1). 79 Fed. Reg. 75090. Here again, DOE has not provided its basis or cited any technical or risk-based analysis to support the weighting factors for certain items under that proposed alternative (e.g., relative risk weight of 2 for all Appendix A items) or the relative risk allocation among industry sectors under proposed Alternative 2.⁹ Without an explanation of the bases for these critical factors, the industry cannot meaningfully evaluate or comment on the formulas and compare the alternatives presented in the proposed rule.

As such, the risk allocations appear to be arbitrary, potentially making the proposed rule vulnerable to challenge. *See, e.g., Interstate Natural Gas Ass’n v. FERC*, 285 F.3d 18, 51–53 (D.C. Cir. 2002) (noting that even where a regulatory limit “would be ‘necessarily somewhat arbitrary,’” an agency must provide “substantial evidence to support its choice and respond[] to criticisms of that figure”); *Time Warner Entm’t v. FCC*, 240 F.3d 1126, 1137 (D.C. Cir. 2001) (“We recognize that in drawing a numerical line an agency will ultimately indulge in some inescapable residue of arbitrariness But to pass even the arbitrary and capricious standard, the agency must at least reveal a rational connection between the facts found and the choice made.” (internal citations and quotations omitted)); *see also WJG Tel. Co. v. FCC*, 675 F.2d 386, 388–90 (D.C. Cir. 1982) (“[A]n agency may not pluck a number out of thin air when it promulgates rules in which percentage terms play a critical role.” (emphasis added) (citations omitted)).

In sum, if DOE has relied on information or studies not referenced in the NOPR, it should not seek to finalize the NOPR until that information has been made public.¹⁰ If DOE has not relied on any technical data or analysis, then it should proceed to collect such information. In either case, DOE should issue a supplemental proposed rule that includes the supporting information and the bases for the risk allocation factors and methodology.

⁹ Nor does the NOPR address in detail NEI’s comments in response to the 2010 NOI concerning categories of suppliers that reasonably could be assigned a smaller portion of the contingent costs based on the low likelihood that their goods or services would contribute significantly to a nuclear incident resulting in a call for funds under the CSC. As part of developing additional information to support a supplemental proposed rule, we request that DOE perform a risk analysis of different categories of goods and services, and different stages of the fuel cycle, to determine whether certain goods and services contribute significantly to the risk of a nuclear incident.

¹⁰ *See Chamber of Commerce of U.S. v. SEC*, 443 F. 3d 890, 900, 903 (D.C. Cir. 2006) (“In essence the question is whether at least the most critical factual material that is used to support the agency’s position on review . . . [has] been made public . . . and exposed to refutation.” (quotation omitted)).

C. The Need to Obtain and Incorporate Additional Information Requires that DOE Issue for Comment a Supplemental Proposed Rule

DOE seeks comments on whether the proposed collection of information “is necessary for the proper performance of the functions of the agency” and will have practical utility. *See* 79 Fed. Reg. 75091. We answer in the affirmative and believe that doing so will have practical utility as it will increase the likelihood that a final rule is workable.

In particular, NEI recommends that DOE collect data on aggregate U.S. nuclear exports to covered installations, and calculate the critical values for the proposed assessment formulas, including estimates to derive the total risk exposure of all suppliers. EISA section 934(f) gives the Secretary the authority to collect information necessary to develop and implement the risk-informed assessment formula. The need for DOE to collect such information and data applies whether or not DOE adopts the industry model (or something similar), retains NOPR Alternatives 1 and 2, or selects some other approach. The Department must obtain and publish information necessary to inform the regulated community of the value of the material terms incorporated in whatever retrospective risk pooling program is used in the final rule. We recognize that such data may not be available in a single compilation or format. DOE could presumably issue a Federal Register notice seeking the information. DOE could also work with other agencies, such as the Nuclear Regulatory Commission (“NRC”) and the Commerce Department, as needed, to obtain information on those entities with export licenses involving nuclear installations in CSC member countries.

Once further information is gathered and DOE considers NEI’s proposed risk-informed assessment approach, the Department should provide an additional opportunity for public comment on a supplemental rule. In our view, such a supplemental proposed rule is unlikely to be considered a logical outgrowth of the current NOPR.¹¹

Under the APA, an agency’s final rule must be a logical outgrowth of its proposed rule and is required to include “either the terms or substance of the proposed rule or a description of the subject and issues involved.” 5 U.S.C. 553(b)(3). For an agency to meet the logical outgrowth test, interested parties should have “anticipated that the change was possible, and thus reasonably should have filed their comments on the subject during the notice-and-comment period.” *See CSX Transp., Inc. v. Surface Transp. BD.*, 584 F.3d 1076, 1079-80 (D.C. Cir. 2009). “By contrast, a final rule fails the logical outgrowth test and thus violates the APA’s notice requirement where interested parties would have had to divine the agency’s unspoken thoughts, because the final rule was surprisingly distant from the proposed rule.” *See Northeast Maryland Waste Disposal Authority v. EPA*, 358 F.3d 936, 952 (D.C. Cir.2004). With the additional material we expect DOE to make available to assist interested parties in understanding the rule’s effect, a final rule would likely not be viewed as the “logical outgrowth” of the existing NOPR. That is, the existing NOPR consists of a series of questions and provides little substantive information. If new information and additional detail markedly affects or changes the proposed rule, then the final rule will not comply with the APA notice requirement and will warrant a

¹¹ *See Anne Arundel Cnty. v. EPA*, 963 F.2d 412, 418 (“The essential inquiry focuses on whether interested parties reasonably could have anticipated the final rulemaking from the draft [rule].” (quotation omitted)).

republishing of the revised proposed rule. With respect to the instant NOPR, the logical outgrowth test would not be met “because something is not a logical outgrowth of nothing.” *Environmental Integrity Project v. EPA*, 425 F.3d 992 (D.C. Cir. 2005).

D. The Proposed Reporting Requirements in the NOPR Must Be Revised to Achieve a Workable Final Rule

1. Requirement to Report Covered Exports to Nuclear Installations

EISA section 934(b) defines a “covered incident” as “a nuclear incident the occurrence of which results in a request for funds pursuant to [the CSC.]” The scope of such a request under the CSC is generally limited to compensation for damages from a nuclear incident *in the territory of a contracting party to the CSC*. CSC, art. II.2. The NOPR attempts to reflect this limitation by specifying that the calculated retrospective premium payments will be based on “covered” transactions. As discussed below, however, the NOPR creates unnecessary confusion because scope of reporting requirements appear to be inconsistent.

A *covered transaction* under Alternative 1 means “any reportable transaction by which a nuclear supplier is the final nuclear supplier to provide any item listed in Appendix A or B of this part for use in the design, construction, operation, or decommissioning of any covered installation or in the transportation of material to or from a covered installation.” 79 Fed. Reg. 75095. Under Alternative 2, a *covered transaction* means “any reportable transaction by which a nuclear supplier is the final nuclear supplier of a covered installation, equipment and technology for a covered installation, nuclear materials and transportation of nuclear materials to or from a covered installation, and nuclear services to a covered installation.” 79 Fed. Reg. 75098. For both Alternative 1 and 2, a *covered installation* means “a nuclear installation at which the occurrence of a nuclear incident could result in a request for funds under the Convention.” 79 Fed. Reg. 75095, 75098.

In contrast, a *reportable transaction* for purposes of Alternative 1 covers certain transactions by a covered nuclear supplier since 1959 “for use in the design, construction, operation, or decommissioning of any nuclear installation outside the United States or in the transportation outside the United States of nuclear materials to or from a nuclear installation.” 79 Fed. Reg. 75095. For purposes of Alternative 2, a *reportable transaction* means any transaction by a covered nuclear supplier involving the supply of certain items: nuclear installations outside the U.S. from 1960 through 2007, and equipment, components, technology, materials or services for a nuclear installation “outside the United States” after 2007. 79 Fed. Reg. 75098. Thus, both alternatives would include transactions to any nuclear installation outside the U.S. In sum, based on these definitions the scope of nuclear suppliers’ obligation to report transactions under the NOPR is overly broad, as there are 344 operating nuclear reactors outside the U.S., only 15% of which are in current CSC contracting parties.¹²

¹² Power Reactor Information System, International Atomic Energy Agency, April 17, 2015, <http://www.iaea.org/pris/>.

Significantly, other discussions of the definition of a *covered installation* reflect DOE's intent to apply the term more narrowly, so as to include only nuclear installations in a CSC member state at the time of the nuclear incident for which the contribution is sought (79 Fed. Reg. 75081):

The Department is proposing that a covered installation is a nuclear installation in a CSC member state at the time of the nuclear incident for which the contribution to the international supplementary fund is made. While flexibility and breadth of application may be desirable in some respects, in the end the United States would only be called upon to contribute to a nuclear incident in a CSC member State, and therefore the risk premium – and potential liability avoided by operation of the Convention – should be calculated based upon transactions with nuclear installations only in CSC member states.”

Unless this more limited definition of a *covered installation* is reflected in the definition of a “reportable transaction,” U.S. nuclear suppliers would be unnecessarily required to report exports to countries that are not contracting parties to the CSC. 79 Fed. Reg. at 75095, 75098.

This requirement is illogical and unnecessary. Several countries where U.S. nuclear suppliers do business have no realistic prospect of signing the CSC in the foreseeable future. The requirement to report exports to countries that are not contracting parties to the CSC and/or have not signed the CSC is not necessary for DOE to carry out Congress' mandate. The proposed additional data sought is irrelevant, as data from countries not part of the CSC would not even be used in implementing the formula to calculate the liability of suppliers in the event of an incident in a CSC country. While nuclear suppliers strongly support the federal government's efforts to encourage other countries to join the CSC, the proposed reporting requirements are not necessary to achieve that policy goal. In fact, to the extent that DOE's proposal would impose unnecessary burdens on nuclear suppliers in the U.S., it would undermine some of the fundamental objectives of the CSC and the EISA, which include facilitating U.S. participation in the global marketplace. *See* CSC, Preamble (encouraging global cooperation to promote a higher level of nuclear safety); EISA section 934(a) (finding that the CSC and the EISA will reduce the potential liability of U.S. nuclear suppliers). Thus, we request that DOE narrow any reporting requirement in a rule implementing the EISA to include nuclear exports only to countries that are contracting parties to the CSC.

2. Reporting of Covered Nuclear Exports Should Begin January 1, 2008

Under the proposed rule, DOE would seek significant quantities of information – some of it more than 50 years old – from nuclear suppliers. Notably, the NOPR would require reports within six months after the effective date of a final rule,¹³ to include information on prior transactions dating back to 1960, for Appendix A items under Alternative 1, or involving nuclear installations under Alternative 2. *See* section 951.15 under Alternative 1 and section 951.21 under

¹³ Regarding the proposed reporting deadline, we believe that if all information (including covered installations and reportable transactions) needed is made available, then a deadline of six to nine months after the effective date of a final rule is not unreasonable, given that this will be a first-of-a-kind compilation of reportable transactions. *See* 79 Fed. Reg. 75091.

Alternative 2. The information required would include a description of the transaction, identification of the volume or quantity of each item involved in the transaction, and value of each identified item and the total value for each reportable transaction. *Id.*

In our view, even if records from 1960 could be found for these transactions (which in many cases cannot be done), it will be extremely time-consuming and costly for companies to analyze them, particularly if they involve predecessor companies acquired in a merger or acquisition. DOE's proposed reporting requirements are likely to be particularly burdensome for suppliers such as engineering contractors that perform varied services on many types of projects. Further, the proposed rule would require nuclear suppliers to *certify* the reports of nuclear transactions going back several decades, which imposes yet an additional compliance burden.

DOE recognizes that "recordkeeping back to 1960 may be challenging. . . ." (79 Fed. Reg. at 75084) and we believe the NOPR is unreasonably optimistic about the state and availability of records. Companies do not maintain records indefinitely. For instance, the NRC requires nuclear export license-holders to maintain records of nuclear exports for only three to five years after the date of export, depending on the type of export. *See* 10 C.F.R. § 110.53(b)(1). (DOE has no corresponding records retention requirement under its Part 810 regulations.) After the required retention period has passed, companies may destroy such documents under applicable corporate document retention policies.

Nuclear suppliers should not be required to research and collect detailed information on transactions that are decades old, and then have to *certify* the accuracy and completeness of the information. Producing more recent information will satisfy EISA's objective of ensuring some pool of nuclear suppliers will reimburse the U.S. government in the event of a call. The EISA does not require the collection of records beginning in 1960 and it is not necessary to broaden record collection beyond that required by the statute.¹⁴ Therefore, for purposes of record-keeping, reporting, and cost allocation pursuant to the EISA, the reach-back period, if any, should not extend past January 1, 2008. This date roughly correlates to the date of EISA's enactment, the earliest date on which affected nuclear suppliers may have been on notice of some additional cost burden, and the period for which such records generally are maintained for tax purposes.

DOE also seeks comment regarding the impact of reporting requirements on suppliers in terms of burden hours, capital/start-up costs, and competitiveness. 79 Fed. Reg. 75090. As noted above, we believe the reporting requirements must be focused and simplified to support a workable rule. As currently proposed, the reporting requirements are unduly burdensome and, in some cases, unlikely to produce sufficiently reliable data to support an equitable allocation of costs across all

¹⁴ On a related point, DOE also seeks comment regarding the number of nuclear suppliers affected by the proposed reporting requirements. 79 Fed. Reg. 75090. NEI does not have that data. Because the NOPR does not provide that number, potentially affected nuclear suppliers cannot reliably determine whether and how they will be affected by the rule. As discussed throughout these comments, we urge DOE to collect and make public additional data that will facilitate suppliers' ability to calculate the number of nuclear suppliers affected, and allow some additional time for that to be undertaken.

nuclear suppliers. However, many of these concerns would be alleviated by focusing on data collection from January 1, 2008 forward.

3. DOE Should Provide a List of CSC “Covered Installations”

DOE seeks comment on whether it should “produce a list of the nuclear installations outside the United States that would be covered installations under the Convention.” 79 Fed. Reg. 75090. We urge the Department to produce, maintain, and make publicly available a list of covered installations outside the U.S. that would be “covered installations” under the CSC. The existence of such a list will enable DOE (and affected nuclear suppliers) to accurately calculate potential U.S. liability, a critical piece of information for the contingent cost to become insurable. Further, recordkeeping and information collection efforts by nuclear suppliers will surely be improved by knowing which facilities are in scope.

DOE’s definition of “covered installation” effectively defers to the definitions in the CSC. The CSC defines “nuclear installation” as:

- (i) any nuclear reactor other than for sea or air transport;
- (ii) any factory using nuclear fuel for production of nuclear material or for processing or reprocessing of nuclear material or nuclear fuel; and
- (iii) any nuclear material storage facility other than for transport; provided that the Installation State may determine that several nuclear installations of one operator which are located at the same site shall be considered as a single nuclear installation.¹⁵

Thus, a precise meaning of “nuclear installation” is not established in the CSC because an installation may encompass multiple reactors or other facilities at the same site, at the discretion of the nation in which the facility is located. As a result, the meaning of “covered installation” could vary depending on determinations made by the governments of other CSC member states.¹⁶

As a federal agency that implements the CSC, DOE is in the best position to determine which nuclear facilities are covered installations, as well as the potential liability arising from those installations. We believe both DOE and nuclear suppliers would benefit by the development of a list of covered installations. Moreover, knowing which nuclear facilities are (or may someday be) covered installations would assist U.S. nuclear suppliers in locating and identifying records that are relevant to the calculations under the proposed rule. For all of these reasons, NEI recommends that DOE create and maintain a list of covered installations for purposes of the rule.

¹⁵ Convention on Supplementary Compensation for Nuclear Damage, Annex Art. 1(1)(b).

¹⁶ The NOPR also proposes several exclusions from the definition of “nuclear installation,” such as radioactive waste disposal facilities, uranium mining, milling and conversion facilities. Additionally, suppliers of goods and services to radioactive waste disposal facilities are not subject to the NOPR. 79 Fed. Reg. 75082.

(It would advance public comment if this information were provided in connection with the next iteration of the proposed rule.)

4. The DOE Final Rule Should Protect the Competitiveness of U.S. Exports

The NOPR requests comment on “the potential impacts to U.S. competitiveness in the nuclear export arena and the President’s National Export Initiative” (79 Fed. Reg. 75079), and which of its proposed risk allocation formulas is better suited to mitigate the impacts on U.S. competitiveness in the nuclear export arena. *Id.* at 75090. The President’s National Export Initiative aims to increase U.S. exports by removing trade barriers abroad, helping firms – especially small businesses – overcome hurdles to entering new export markets, by assisting with financing, and by pursuing advocacy for exports.¹⁷ As noted in our comments on the 2010 Notice of Inquiry, NEI believes DOE’s EISA-related rulemaking should be guided by the Report to the President on the National Export Initiative, which stated in part:

The [National Export Initiative] is the Administration's commitment to serve as a full partner with U.S. businesses to promote American-made goods and services worldwide, within global trading rules. *Firms generally require government support to overcome trade barriers in other countries – they cannot by themselves overcome unfair trade practices.* Furthermore, it may be more efficient to have the Federal Government help U.S. companies overcome information barriers (how to navigate other countries’ markets or policies) rather than have each company reinvent the wheel each time it tries to export to a new country. *In addition, there is generally a cost to entering a new market. If the U.S. Government could efficiently help firms reduce that fixed cost, the U.S. economy can perform better.* Small businesses play a special role in U.S. job creation, innovation, and entrepreneurship, yet face hurdles to exporting that can limit their ability to export. *Many other governments help support exporters – generally more than the U.S. Government has done in the past. The [National Export Initiative] can help balance the playing field and give American firms a chance to compete for the world's customers.* (Emphasis added.)¹⁸

Given that the potential impact of this rulemaking on U.S. nuclear suppliers ranges from \$70 million to \$150 million (79 Fed. Reg. 75077-78), it is critically important that any final rule be based on sound and supportable principles of equity, and sufficient information to justify specific choices among alternative approaches.

It is indisputable that international competitors of domestic nuclear suppliers will acquire a competitive advantage as a result of EISA’s requirement that domestic nuclear suppliers bear the contingent cost of a covered incident. Thus, it is essential that DOE’s implementing rule not compound the problem. To provide an equitable risk pooling system while reducing the impact on the competitiveness of U.S. nuclear suppliers, NEI believes any rule should be based on

¹⁷ Executive Order No. 13,534, *National Export Initiative* (Mar. 11, 2010), <http://www.whitehouse.gov/the-press-office/executive-order-national-export-initiative>.

¹⁸ “Report to the President on the National Export Initiative,” at pg. 2, September 16, 2010, https://www.whitehouse.gov/sites/default/files/nei_report_9-16-10_full.pdf

certain key principles that are consistent with the policy of the National Export Initiative, namely:

- *The rule should be simple.* The cost allocation formula must be reasonably simple to calculate and sufficiently well-defined and transparent so that risk mitigation options (most importantly, including private and other insurance) can be developed. A complex system will only create uncertainty for U.S. suppliers and discourage them from participating in the export market, which will be to the detriment of safety and security at foreign projects and harm the U.S. economy.¹⁹
- *The rule should provide sufficient certainty for the regulated community.* The cost allocation formula should be based on known variables and the rule should provide a “cap” on liability, both on an annual basis and on the total liability of any supplier, so that affected nuclear suppliers can plan for and mitigate their potential exposure.
- *The rule should minimize the burden on U.S. nuclear suppliers.* The rule should be designed to minimize the reporting and administrative burden on domestic nuclear suppliers. The rule should not require retention of records or reporting of information not directly required for cost allocation purposes.

Because the alternatives outlined in the NOPR do not adequately satisfy these objectives, promulgation of the existing proposed rule as a final rule would likely have an adverse impact on the competitiveness of U.S. nuclear suppliers. We believe the industry model discussed herein provides a more effective way to satisfy the Department’s obligation under EISA.

E. Cap on Retrospective Premium Payments

DOE seeks comment on the possibility of a retrospective premium payment cap. *See* 79 Fed. Reg. 75090.²⁰ The NOPR supports the concept of a cap on the retrospective premium payment for any one nuclear supplier, but does not propose a specific figure. Rather, the NOPR inquires whether stakeholders support a cap in a specific amount (“such as \$25 million”) or a percentage of contingent cost (“such as 5% or 25%”) to limit any one supplier’s premium payment. *Id.*

NEI believes it is essential that DOE final rule establish a “cap” – *i.e.*, a maximum dollar limitation on any single supplier’s liability under the CSC contingent cost allocation. We understand that there are challenges associated with establishing a cap when there is not yet a full understanding of the number of companies subject to the retrospective premium call. Nevertheless, it is critical that DOE establish a limitation on liability so that nuclear suppliers can plan for the highly unlikely event that could give rise to a call for supplementary funds and, if they so choose, seek private insurance or other financial protection. The absence of a cap in the

¹⁹ The U.S. Commerce Department has estimated that every \$1 billion of exports by U.S. companies represents 5,000 to 10,000 domestic jobs. Thus, fostering opportunities for U.S. exports in the nuclear sector will provide a significant benefit for the nation’s economy.

²⁰ This discussion also responds to a question DOE posed in its March 9, 2015 grant of an extension of the NOPR comment period. 80 Fed. Reg. 12352-53.

NOPR has complicated stakeholders' efforts to determine the limits of their potential liability under the CSC.

More specifically, the cap on the contribution of individual companies should apply on a per-incident basis. We would also support insertion of provisions in the retrospective risk pooling program to protect against the disproportionate shifting of obligations due to a cap. To accomplish this, industry suggests (subject to DOE data collection and further industry review of that data) that a cap on any company's contributions be set at \$5 million per incident. NEI also believes that in applying a cap, multiple nuclear incidents at a single nuclear facility that occur concurrently or close in time should be treated as one incident.²¹

DOE should consider establishing a cap on an annual basis as well as on a supplier's total liability for CSC retrospective premium payments. Such limitations on annual and total liability would be similar to those in place for the Price-Anderson Act retrospective premium system. We recognize that the DOE final rule may need to allow the cap to be exceeded in the event that premium payments do not cover the total costs allocated to the United States under the CSC. Nevertheless, the final rule should establish a cap on liability to the extent possible, to avoid U.S. suppliers being forced out of business by either the risk of CSC retrospective premium payments or any required payment. We suggest that DOE incorporate the principles of this cap proposal into a supplemental proposed rule, along with publication of the data collected, and seek additional comment on the specific values suggested for the cap.²²

F. Timing of Payment of Risk Premiums; Penalty for Non-payment

The NOPR requests comment on the option to pay retrospective premiums within 60 days or on a prorated basis over five years, and any alternative payment options. It also requests comment on whether the penalty for non-payment should be discretionary, and what factors may be considered to mitigate the penalty or support a claim of extraordinary circumstances. *See* 79 Fed. Reg. 75090.

The option to pay the risk premium within 60 days or on a prorated basis over five years is the minimum necessary to avoid an undue hardship on nuclear suppliers. We recommend that DOE consider allowing payment options, with interest, for varying lengths of time, depending on the amount of the retrospective premium liability.²³ Extending the timing of the payment would mitigate the financial impact on U.S. suppliers. Moreover, such an extended payment schedule

²¹ Industry recognizes that DOE must recover the full amount of the contingent cost under any rule. We believe that the cap proposed will ensure that this occurs, but until DOE provides additional information about the number of nuclear suppliers participating and an estimate of the total value of exports covered, neither it nor suppliers will be possible to determine the impact of any cap.

²² DOE also seeks comment on "the process for ensuring the United States is paid in full by nuclear suppliers for its contributions under the Convention." 79 Fed. Reg. 75090. Assuming DOE issues a supplemental proposed rule, we think this question is best left unaddressed until that additional comment opportunity.

²³ NEI urges DOE to request that Congress amend Section 934(h)(B)(ii) of EISA to allow nuclear suppliers to prorate payment of the deferred payment either in five equal annual payments or in payments over varying lengths of time up to 10 years based on the amount of the CSC contingent cost allocation.

would help mitigate the likelihood that U.S. suppliers would leave the market due to potential financial exposure created by the EISA's imposition of contingent liability. Finally, spreading the payments out over varying lengths of time may make the risk more insurable.

As for the proposed penalty for failure of a nuclear supplier to pay a risk premium (discussed at 79 Fed. Reg. 75088), DOE should not establish a penalty of up to twice the amount of the payment due. To double the amount of the payment without regard to possible extenuating and other circumstances would be unnecessarily punitive, and may lessen the likelihood of payment to the government by causing a supplier to enter into bankruptcy. Further, the NOPR provides no compelling reason for imposing such a provision. NEI believes that any penalty for non-payment should be discretionary, depend on factors defined in the regulation, and have a reasonable maximum value. Relevant factors should include the lateness of the payment, whether notice was provided and whether the supplier informed DOE that it would not be able to pay or contested the amount of the assessed premium payment.

G. Financial Assurance

The NOPR requests comment on whether nuclear suppliers should be required to demonstrate that they have an adequate financial mechanism (*e.g.*, a state-administered fund, bond, private insurance, or certificate of deposit) to cover the risk premium payment. DOE also seeks comment on the feasibility, cost and necessity of the financial assurance. *See* 79 Fed. Reg. 75090; *see also* discussion at 79 Fed. Reg. 75088.

In our view, the final rule should not require nuclear suppliers to demonstrate financial assurance for possible deferred payments. Section 934 of EISA does not provide DOE with authority to promulgate a regulatory requirement for a demonstration of financial assurance. The Act does not require such a demonstration by nuclear suppliers or otherwise indicate that Congress intended for DOE to have regulatory oversight of nuclear suppliers' financial status. In terms of the "necessity" of such a requirement, the NOPR offers no justification for imposing such a burden on nuclear suppliers, either in terms of the reporting requirement or the need to establish a specific type of assurance method acceptable to DOE.

Regarding the cost and feasibility, such a requirement would be an unnecessary expenditure and burden for suppliers without any corresponding government benefit, given that a call for supplementary funds pursuant to the CSC is likely to be very infrequent. Moreover, DOE has not made clear how it would decide what financial assurance method would be adequate. If the Department does decide to impose a financial assurance requirement, it should be discretionary rather than mandatory.

H. Small Business Exclusion

DOE seeks public comment on the proposed exclusion for small nuclear supplier under NOPR Alternatives 1 and 2.²⁴ In our view, an exclusion for small nuclear suppliers is an essential component of a workable final rule, and will ensure that small nuclear suppliers do not face potentially bankrupting liability in the event of a nuclear incident resulting in a retrospective premium assessment.²⁵ NEI supports DOE's position that a nuclear supplier that meets the definition of a small business under Small Business Administration guidelines should be excluded from the retrospective risk pool program, provided it has been a small business at all times from 2008 onward.²⁶

IV. DOE SHOULD CONSIDER NEI'S RISK ALLOCATION MODEL IN LIEU OF ALTERNATIVES 1 AND 2 IN THE NOPR

In an effort to provide DOE with constructive suggestions in addition to critiquing the alternatives in the NOPR, NEI has worked closely with our member companies to develop for DOE's consideration an industry model for a retrospective risk pooling program. Although we believe the framework is sufficiently fleshed out to become the basis for a supplemental proposed rule, a fuller description of the model and the results it produces will be possible once DOE collects and shares additional data and information. In order to expedite DOE's consideration of the industry model, we suggest that DOE hold one or more public workshops as part of the rulemaking process. We also request that this industry model (or some variation thereof) be adopted as part of a supplemental proposed rule.

The industry model is discussed below. Section IV.A presents the industry model using both a pro rata allocation method and a revenue range or "revenue band" method. Section IV.B discusses key attributes of the industry model, including the use of a risk-based sector approach, definition of covered exports, an explanation of the "percentage share of call" under each sector, an explanation of how individual supplier contributions are determined under both calculation methods (including examples), and a staggering approach to data collection complete the industry model.

²⁴ See 79 Fed. Reg. 75090. For Alternative 1, the small nuclear supplier exclusion is defined at Section 951.9 (79 Fed. Reg. 75096); see also discussion at 79 Fed. Reg. 75084. For Alternative 2, the small nuclear supplier exclusion is defined at Section 951.15 (79 Fed. Reg. 75099-100); see also discussion at 79 Fed. Reg. 75087.

²⁵ This discussion also responds to a question DOE posed in its grant of an extension of the NOPR comment period. 80 Fed. Reg. 12352-53 (Mar. 9, 2015).

²⁶ On the issue of *de minimis* exports, we believe that to the extent practicable, no *de minimis* standard for covered exports should be applied which would exclude nuclear suppliers that do not meet the small business exclusion above from participating in the RRPP. Some in the industry also favor a minimum contribution per nuclear supplier to avoid the prospect that the DOE would have to pursue or litigate very small claims.

A. Proposed Industry Risk Allocation Model

Pro Rata Allocation Method

Sector	U.S. Government Share of CSC Call	Sector Percentage Share of Call²⁷	Cumulative Exports for All U.S. Firms in Sector²⁸	Individual Company Pro Rata Share²⁹	Individual Company Allocation³⁰
Power Reactors	\$67 million	[65 to 75%]	\$5 billion	$\frac{x}{\$5 \text{ billion}}$	\$tbc
Fuel Cycle Facilities	\$67 million	[10 to 20 %]	\$1 billion	$\frac{x}{\$1 \text{ billion}}$	\$tbc
Other Covered Installations	\$67 million	[5 to 15%]	\$3 billion	$\frac{x}{\$3 \text{ billion}}$	\$tbc

²⁷ Percentages noted for *Sector Percentage Share of Call* are intended to approximate relative risk of each sector. Adjustment may be needed based on revenue data collected and the number of suppliers in each sector.

²⁸ Values indicated for *Cumulative Exports for All U.S. Firms in Sector* are illustrative. They are intended to demonstrate how the model would operate and will need to be revised based on information collected.

²⁹ Values indicated in *Individual Company Pro Rata Share* are based on the illustrative *Cumulative Exports for All U.S. Firms in Sector* values. They are intended to demonstrate how the model would operate, and will need to be revised based on information collected.

³⁰ To be calculated based on *Individual Company Pro Rata Share*, *Sector Percentage Share of Call*, and *U.S. Government Share of CSC Call*.

Revenue Band Allocation Method

Sector	U.S. Government Share of CSC Call	Sector Percentage Share of Call³¹	Revenue Ranges	Revenue Range Share of Sector Percentage Share of Call³²	Number of All U.S. Firms in Revenue Range³³	Individual Company Allocation³⁴
Power Reactors	\$67 million	[65 to 75%]	Greater than \$500m	[55%]	5	\$4.79 to \$5.53 million
			\$100m to \$500m	[30%]	20	\$0.65 to \$0.75 million
			Less than \$100m	[15%]	50	\$0.13 to \$0.15 million
Fuel Cycle Facilities	\$67 million	[10 to 20 %]	Greater than \$500m	[55%]	3	\$1.23 to \$2.46 million
			\$100m to \$500m	[30%]	8	\$0.25 to \$0.50 million
			Less than \$100m	[15%]	10	\$0.10 to \$0.20 million
Other Covered Installations	\$67 million	[5 to 15%]	Greater than \$500m	[55%]	5	\$0.37 to \$1.11 million
			\$100m to \$500m	[30%]	5	\$0.20 to \$0.60 million
			Less than \$100m	[15%]	5	\$0.10 to \$0.30 million

³¹ Percentages noted for *Sector Percentage Share of Call* are intended to approximate relative risk of each sector. Adjustment may be needed based on revenue data collected and the number of suppliers in each sector.

³² Percentages noted for *Revenue Range Share of Sector Percentage Share of Call* are illustrative only. NEI did not have sufficient information to provide an accurate accounting of the number of firms in each revenue range and sector to suggest an equitable percentage share to allocate to each revenue band within each sector. DOE information collection is critical to allow the affected supplier community to make further recommendations.

³³ Values indicated for *Number of All U.S. Firms in Revenue Range* are illustrative. They are intended to demonstrate how the model would operate. They will need to be revised based on information collected.

³⁴ Values indicated for *Individual Company Allocation* are illustrative. They are calculated based on the values indicated in the *Number of All U.S. Firms in Revenue Range*, *Revenue Range Share of Sector Percentage Share of Call*, *Sector Percentage Share of Call* and *U.S. Government Share of CSC Call*. They are intended to demonstrate how the model would operate and will need to be revised based on information collected.

B. Key Attributes of the Proposed Industry Risk Allocation Model

1. Use of a Risk-Informed Sector Approach

The NOPR seeks comments on the concept of allocated risk by sector; *see* 79 Fed. Reg. 75090, 75099, proposed Section 951.8. Alternative 2 proposes that each nuclear sector be assigned a risk value based upon the relative risk that the goods or services supplied within that sector would contribute to a nuclear incident potentially resulting in a call for funds.³⁵ Like Alternative 2, the industry's risk allocation model is based on a sector approach. In contrast to the sectors proposed in Alternative 2, which are based on the *type of product or service supplied*, the sectors in NEI's model are based on *the type of nuclear facility* to which a product or service is supplied.

The proposed sectors in the industry model are consistent with the types of facilities covered by the CSC and are defined as follows:

- **Power Reactors:** Any nuclear reactor other than one with which a means of sea or air transport is equipped for use as a source of power, whether for propulsion thereof or for any other purpose. This would include light water reactors and other power reactors, regardless of size.
- **Fuel Cycle Facilities:** Any factory using nuclear fuel for the production of nuclear material, or any factory for the processing of nuclear material, including any factory for the re-processing of irradiated nuclear fuel. This would include some research or test reactors that are used to produce nuclear materials.
- **Other Covered Installations and Services:** Any facility where nuclear material is stored, other than storage incidental to the carriage of such material. For purposes of the industry model, this sector includes transportation (products, materials and services involved in the transport of nuclear material to, from or within a country that is a contracting party to the Convention). This sector also includes power reactor facilities in the process of decommissioning and in which the nuclear fuel has been removed.

We believe organizing the sectors in the industry model on the basis of the type of nuclear facility to which a product or service is supplied is an improvement over Alternative 2. For example, the industry's proposed approach is easier to administer because exports based on the type of facility supplied can be more readily identified. Additionally, by establishing exports to reactors as a single category, it is likely that the pool will be sufficiently large to avoid a disproportionate impact on any one supplier. Also, by using the facilities to which goods and services are exported as the basis for the sectors, the relative risk relationship between the sectors is more apparent, *i.e.*, the greater share of liability would be borne by those supplying reactors.

³⁵ The NOPR also seeks input on possible alternative risk allocation amounts per sector, and supporting information and data for these amounts. NOPR Alternative 2 would allocate 50% of the risk to the Facility Sector, 25% to the Equipment and Technology Sector, 15 percent to the Nuclear Material and Nuclear Material Transportation Sector, and 10 percent to the Services Sector. 75 Fed. Reg. at 75099.

That is, although the overall risk is extremely low, the highest risk of an incident potentially requiring a call pursuant to the CSC is assigned to reactors. Significantly, less risk is assigned to fuel cycle facilities and relatively low risk is assigned to the remaining catchall category.

2. Defining Covered Exports

DOE estimates in the NOPR that 25 firms would be included in the retrospective risk pooling program (“RRPP”) under its proposal. The benefits afforded by the CSC extend well beyond 25 firms to the entire U.S. supply chain involved in the global market. As such, it would be inequitable to require a small fraction of the companies receiving the benefit the CSC protection to be responsible for the entirety of the U.S. contribution if there should be a call for supplementary funds. Although many nuclear suppliers provide their goods and services directly to nuclear facilities outside the U.S., there are many other nuclear suppliers that provide their goods and services indirectly as a supplier or sub-supplier to another nuclear supplier for export. Where its goods or services can be shown to have been exported to CSC countries as part of an export made by a nuclear supplier, the sub-supplier reaps the benefit of the protections afforded by the CSC and should participate in the contingent cost allocation associated with the export in which its goods or services were included.

For the purpose of calculating contingent cost allocations, the industry model proposes that DOE include in the risk pooling program all companies providing goods and services for use at or in a nuclear facility in a country that is a CSC contracting party. This includes goods and services exported directly by a covered nuclear supplier to any nuclear facility that meets the definition of a covered installation under the DOE rule. It also should include goods and services of a sub-supplier who knows or has reason to know at the time of delivery to the exporting supplier that the sub-supplier’s goods or services will be exported to a covered installation, provided:

- (i) the specific goods or services exported are identifiable to the sub-supplier when exported (*e.g.*, the sub-supplier’s goods and services are not fungible with other goods or services delivered to the exporting supplier, so that it is possible to determine that the sub-supplier’s goods or services are the ones actually being exported); and
- (ii) the goods or services are not substantially transformed prior to export in a process of manufacturing, fabricating, processing, engineering, etc. (*e.g.*, the delivery of a steel ingot for transformation into another product would not be a covered export even if the supplier of the steel knew or had reason to know that the other product would be exported to a covered installation; the delivery of UF₆ to a U.S. fabrication or processing facility would not be treated as a covered export.)

3. Sector Percentage Share of Call

In developing the industry model we identified roughly 250 facilities in operation in current CSC contracting parties that may meet the definition of power reactor, fuel cycle facility or other

covered facilities.³⁶ Of these facilities (covered installations), roughly 150 are power reactors (60 percent of all facilities), 25 could be categorized as fuel cycle facilities³⁷ (10 percent of all facilities), and 70 could be classified as other covered installations³⁸ (roughly 30 percent). This is relevant to the Sector Percentage Share of Call used in the industry model.

The Sector Percentage Share of Call allocated to each sector in the industry model approximates the number of facilities of each type in each sector. The percentage was adjusted slightly to reflect the relative risk of an accident at a facility in the sector that would result in a significant amount of radioactivity released offsite, and the anticipated portion of covered exports from the U.S. to each sector. The “Sector Percentage Share of Call” therefore should reflect the relative risk of a CSC-qualifying incident occurring in each sector.³⁹

IAEA’s public databases indicate that approximately 60 percent of the roughly 250 facilities in operation in current CSC countries may meet the definition of a power reactor. However, the model assigns to the sector percentage share of call for the *power reactor sector* a range of 65 to 75 percent rather than 60 percent. The upward adjustment was made because we anticipate that covered exports to this sector will be a larger portion of total covered exports. Additionally, the risk of an accident at a nuclear power reactor causing an offsite release, while extremely small, is somewhat greater for the power reactor sector than that of either fuel cycle facilities or other covered installations.

The percentage share of call assigned to the *fuel cycle facilities sector* is proposed to be between 10 and 20 percent. This is based on the possible addition of some research reactors to this sector,⁴⁰ the anticipated portion of covered exports to this sector, and the lower relative risk that an accident at a fuel cycle facility could result in a significant amount of radioactivity or chemicals released offsite.⁴¹

The percentage share of call assigned to the *other covered facilities sector* is proposed to be between 5 and 15 percent. IAEA’s public databases indicate that approximately 30 percent of the roughly 250 facilities in operation in current CSC countries may meet this definition. However, the industry model proposes a lower range because the relative risk of an accident with

³⁶ According to publically available IAEA databases (Power Reactor Information System, Nuclear Fuel Cycle Information System and the Research Reactor Database).

³⁷ Facilities that were not within the CSC definition for fuel cycle facilities were excluded from this count, e.g., conversion, milling, ore production, zirconium and used fuel storage facilities.

³⁸ Dry storage and wet storage facilities were included in this facility count. Utilizing the referenced IAEA databases, there was not a reliable method to determine the number of power reactors at which active decommissioning activities were being conducted.

³⁹ EISA Section 934 requires that the assessment formula used by DOE be “risk informed.” A sector approach is specifically contemplated by Section 934(e)(2)(C)(IV) for this purpose.

⁴⁰ There are approximately 60 research reactors in CSC member countries, some of which may meet the definition of a fuel cycle facility if they are used for the production of or processing of nuclear material.

⁴¹ According to the IAEA database, there are approximately 60 research reactors in CSC member countries, some of which may meet the definition of a fuel cycle facility if they are used for the production of or processing of nuclear material.

a significant amount of radioactivity released offsite at a facility in the *other covered facilities sector* is considered to be relatively low.

Because the industry estimated these values based on the limited public information available, our proposed Sector Percentage Share of Call is *only an estimate*. Development of more reliable and specific Sector Percentage Shares of Call is not possible until information on the cumulative exports for all U.S. firms in each sector is available, and further public comment is provided on the relative risk of a covered incident occurring in each sector.

4. Individual Supplier Contribution

The industry model includes two possible methods of calculating individual supplier contributions: a “pro rata” approach and a “revenue range” approach. Under the pro rata approach, any nuclear supplier with covered exports to covered installations in a particular sector during the covered period would be responsible for a pro rata share of the sector percentage share in the event of a call, subject to a cap. This pro rata share would be calculated by dividing (i) an individual nuclear suppliers’ cumulative exports to covered installations in a sector, by (ii) the cumulative covered exports for all nuclear suppliers to all covered installations in the sector, multiplied by (iii) the sector percentage share, and further multiplied by (iv) the total U.S. government share of the CSC call.

Industry also considered the adoption of a revenue-based range approach, which links revenue to risk in each category. In contrast to the pro rata method where actual export amounts are reported, a revenue range method could, for example, require suppliers to report their cumulative exports under each sector by the range of revenue into which they fit. The ranges could, for example, be divided as follows:

- (i) More than \$500 million
- (ii) \$100 to \$500 million
- (iii) Less than \$100 million

In a revenue based approach, the *Sector Percentage Share* (e.g., 65% to 75% for the Power Reactor Sector) would be allocated to each revenue band within the sector (e.g., 55 percent to more than \$500 million, and then divided by the number of firms in the band), regardless of where their cumulative revenues fell within the revenue band. Using this approach, if a company’s cumulative covered exports to the Power Reactor sector were \$1 billion, it would fall within the “more than \$500 million” revenue range. If there were four other firms within that range, then the allocation of the *Power Reactor Sector Percentage Share* (65% to 75%) to the “more than \$500 million” revenue range (e.g., 55%) would be divided evenly among the five participants in the revenue range.

Once the cumulative export amount is known, NEI members can assess whether the revenue range or the pro rata approach is more equitable.

5. Examples of Company Share Calculation

Below are examples intended to show how the pro rata calculation method and the revenue range methods are intended to function. The values for cumulative exports, number of companies in each revenue range, and the revenue range share of sector percentage share of call, are for illustrative purposes only.

Example A:

- Sector is Power Reactors
- Sector Percentage Share = 65% to 75%
- Firm A cumulative exports to Power Reactors = \$5 million
- Cumulative exports for all U.S. firms to Power Reactors = \$5 billion
- There are 50 total U.S. firms in the “less than \$100 million” revenue range
- U.S. government share of CSC call = \$67 million

Firm A’s pro rata share is calculated as:

$$(\$5 \text{ million} / \$5 \text{ billion}) \times (65\% \text{ to } 75\%) \times \$67 \text{ million} = \underline{\$43,550 \text{ to } \$50,250}$$

Firm A’s revenue range share is calculated as:

$$(1/50) \times (15\%) \times (65\% \text{ to } 75\%) \times \$67 \text{ million} = \underline{\$130,650 \text{ to } \$150,750}$$

Example B:

- Sector is Fuel Cycle Facilities
- Sector Percentage Share = 10% to 20%
- Firm B cumulative exports to Fuel Cycle Facilities = \$250 million
- Cumulative exports for all U.S. firms to Fuel Cycle Facilities = \$1 billion
- There are 8 total U.S. firms in the “\$100 to \$500 million” revenue range
- U.S. government share of CSC call = \$67 million

Firm B’s pro rata share is calculated as:

$$(\$250 \text{ million} / \$1 \text{ billion}) \times (10\% \text{ to } 20\%) \times \$67 \text{ million} = \underline{\$1,675,000 \text{ to } \$3,350,000}$$

Firm B’s revenue range share is calculated as:

$$(1/8) \times (30\%) \times (10\% \text{ to } 20\%) \times \$67 \text{ million} = \underline{\$251,250 \text{ to } \$502,500}$$

Example C:

- Sector is Other Covered Installations
- Sector Percentage Share = 5 to 15%
- Firm C cumulative exports to Other Covered Installations = \$550 million
- Cumulative exports for all U.S. firms to Other Covered Installations = \$3 billion
- There are 5 total U.S. firms in the “\$100 to \$500 million” revenue range
- U.S. government share of CSC call = \$67 million

Firm C’s pro rata share is calculated as:

$$(\$550 \text{ million} / \$3 \text{ billion}) \times (5 \text{ to } 15\%) \times \$67 \text{ million} = \underline{\$614,162 \text{ to } \$1,842,493}$$

Firm C’s revenue range share is calculated as:

$$(1/5) \times (55\%) \times (5\% \text{ to } 15\%) \times \$67 \text{ million} = \underline{\$1,228,333 \text{ to } \$2,456,666}$$

Example D:

- Sector is Power Reactors
- Sector Percentage Share = 65% to 75%
- Firm D cumulative exports to Power Reactors = \$1 billion
- Cumulative exports for all U.S. firms to Power Reactors = \$5 billion
- There are 5 total U.S. firms in the “Greater than \$500 million” revenue range
- U.S. government share of CSC call = \$67 million
- Cap = \$5 million† (for illustrative purposes)

Firm D’s pro rata share is calculated as:

$$(\$1 \text{ billion} / \$5 \text{ billion}) \times (65\% \text{ to } 75\%) \times \$67 \text{ million} = \underline{\$8,710,000 \text{ to } \$10,050,000}$$
 (Firm D would be subject to the cap and its share would be \$5 million.)

Firm D’s revenue range share is calculated as:

$$(1/5) \times (55\%) \times (65\% \text{ to } 75\%) \times \$67 \text{ million} = \underline{\$4,790,500 \text{ to } \$5,527,500}$$
 (The cap would apply if more than \$5 million.)

6. DOE Information Collection

The need for information must be balanced against the burden that such information collection places on industry. We suggest that DOE implement a simple annual or biennial survey to collect information regarding covered transactions. Survey respondents would include any nuclear supplier that has covered transactions over the covered period (presumably 2008-2015). The requested information should be an aggregate to provide the cumulative export information value by sector. In addition, the names of nuclear suppliers providing reports should be made public (without, however, any proprietary information about their sales).⁴²

⁴² We concur with DOE on the importance of the proposed non-disclosure provisions for commercial proprietary information and trade secrets. See proposed 10 CFR 951.17 for Alternative 1 and 951.23 for Alternative 2. The NOPR states that although DOE does not believe the reporting requirements involve information that includes trade secrets or other proprietary information, “the proposed rule provides protection from disclosure for such information that is appropriately marked and upon a satisfactory showing to the Department that the information should

To collect the information needed to evaluate the industry model, a DOE survey could set forth the definitions of covered exports, covered period, cumulative exports and sectors and request the following:

“Please provide the value of cumulative exports in U.S. dollars for your company (including all U.S. subsidiary, etc.) to Argentina, Japan, Morocco, Romania, and United Arab Emirates since January 1, 2008, in the following sectors:

- *Power Reactors*
- *Fuel Cycle Facilities*
- *Other Covered Installations”*

DOE should then make available the cumulative exports for all U.S. nuclear suppliers, by sector, and the total number of U.S. nuclear suppliers in each revenue range in each sector, to enable affected suppliers to determine their potential liability in the event of a call on the CSC and compare the two approaches.

7. Cumulative Export Value

The “cumulative export value” is the aggregated total value of covered exports during the covered period. Each covered nuclear supplier would report its total export revenue in each category in terms of U.S. dollars (even if paid in other currencies) in the year in which the nuclear supplier is paid for the covered export.⁴³ As part of its publication of additional information, DOE would convert those amounts into comparable dollars, using a standard methodology to arrive at a total value of covered exports.

The industry model assumes that, as more countries join the CSC, “cumulative” exports would include the cumulative total value of covered exports to all CSC contracting parties. Promulgation of the final rule puts industry members on notice that they may have to retain records of nuclear exports between 2008 and 2015. But requiring reporting beginning in 2008 for all CSC countries regardless of when the country joins the CSC would require nuclear suppliers to keep records indefinitely on exports to all countries from 2008, even for countries that may not join the CSC for decades. This approach is overly burdensome. Going forward, DOE could create a rolling period for reporting with a seven year “look back” provision, beginning with the year in which the country ratified the CSC. This would help to avoid the imposition of an undue burden, particularly for smaller suppliers.

not be disclosed under applicable law.” 79 Fed. Reg. at 75089. We are less confident than DOE that information collected under the proposed reporting requirements would not include commercial proprietary information and trade secrets. To the extent that DOE requires detailed reports on the specific quantities and values of items exported, the information may well be proprietary or trade secret. If the final rule retains the current reporting requirements, it is imperative that DOE make accommodation to withhold such information from public disclosure in accordance with applicable law. If DOE develops an alternative reporting system, this industry concern may be ameliorated.

⁴³ DOE guidance will be needed to ensure that all nuclear suppliers report value received on the same accounting basis.