



NUCLEAR ENERGY INSTITUTE

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GC-52
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1000 Independence Avenue, SW
Room 6A-157
Washington, DC 20585

Subject: Comments on Convention on Supplementary Compensation on Nuclear Damage Contingent Cost Allocation; Section 934 of the Energy Independence and Security Act of 2007

Dear Ms. Angelini:

The Nuclear Energy Institute (NEI)¹ is pleased to submit comments in response to the Notice of Inquiry (NOI) published in the Federal Register July 27, 2010 (75 Fed. Reg. 43,945). The NOI seeks comment on various issues related to the development of regulations to implement Section 934 of the Energy Independence and Security Act of 2007 (EISA). EISA directs the Department of Energy to establish a retrospective risk pooling program to provide reimbursement to the United States government for its contribution to the supplementary fund under the Convention on Supplementary Compensation for Nuclear Damage Contingent Cost Allocation (Convention or CSC) in the event of certain nuclear incidents. NEI's comments are submitted on behalf of those nuclear industry supplier members potentially subject to the supplementary funding obligations.

The issuance of the NOI provided a valuable opportunity to consider issues that the Department must address before even a proposed rule can be issued. The questions posed in the NOI highlight the large number, wide-ranging nature and complexity of the issues the Department faces in meeting its obligation under Section 934.

First and foremost, NEI believes that DOE should seriously consider the negative impact that requiring domestic suppliers to bear the burden of the U.S. contingent costs under the CSC will

¹ NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all utilities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel fabrication facilities, nuclear material licensees, and other organizations and individuals involved in the nuclear energy industry.

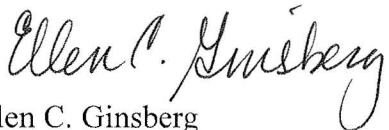
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have on their ability to compete in the global market. If, as we have concluded, the Department's analyses demonstrate that the effect of implementing the Act will be to undermine the objectives of the President's National Export Initiative, or otherwise stifle the ability of domestic suppliers to compete internationally and contribute to the domestic economy in terms of employment, tax revenues and technological innovation, DOE should turn its efforts to reporting that information to Congress with a recommendation that Congress amend the Act to eliminate the burden on domestic suppliers. Given that the CSC is not yet in force and not likely to come into force in the near-term, DOE has time to ensure the implementing rule is both technically sound (from a risk-informed perspective) and not an impediment to domestic suppliers' efforts to compete in the global nuclear market. If the rulemaking goes forward, the regulations should not be made effective until the CSC comes into force.

In addition, NEI's comments emphasize those matters for which considerably more information and data is needed before any equitable, risk-based cost allocation framework can be constructed. The comments also outline an approach that could satisfy the risk assessment requirements set forth in EISA. We note, however, that even the approach outlined in the comments will require a great deal of additional work to test its practical impact and to ensure that it continues to comport with the criteria set forth in EISA once the necessary information and data has been amassed.

Please contact me if you have questions or would like to discuss these comments further.

Sincerely,

A handwritten signature in cursive script that reads "Ellen C. Ginsberg". The signature is written in black ink and is positioned above the typed name.

Ellen C. Ginsberg

Attachment

Comments of the Nuclear Energy Institute
In Response to the Department Of Energy Notice of Inquiry
Regarding Regulations to Be Promulgated Pursuant
To the Energy Independence Act and Security Act of 2007

I. The Nuclear Energy Institute's Interest

The Nuclear Energy Institute (“NEI”)¹ appreciates the opportunity to provide the Department of Energy (“DOE” or “Department”) with comments in response to the Notice of Inquiry (“NOI”) on the Convention on Supplementary Compensation for Nuclear Damage Contingent Cost Allocation published July 27, 2010 at 75 Fed. Reg. 43,945. NEI’s comments are submitted on behalf of those members potentially subject to the contingent cost obligations of the Convention on Supplementary Compensation for Nuclear Damage (“CSC”). Although NEI’s comments reflect a general consensus among its supplier members, there remain some differences of opinion which will be usefully explained in comments by individual members who have a unique interest in particular aspects of the industry proposal or other matters related to implementation of the CSC.

The issuance of the NOI provided NEI members with a valuable opportunity to identify and consider the multitude of issues that the Department must address before even a proposed rule can be issued to guide this country’s participation in the Convention on Supplementary Compensation. The questions posed in the NOI highlight the large number, wide-ranging nature and complexity of the issues the Department faces in meeting its obligation under Section 934 of the Energy Independence and Security Act of 2007 (Pub. L. 110-140; 42 U.S.C. 17373) (“EISA” or “Act”). As such, NEI’s comments have three purposes. The first is to emphasize those matters for which considerably more information and data is needed before an equitable, risk-based cost allocation framework can be constructed. The second is to recommend that DOE establish a rulemaking schedule that respects Congress’s direction to develop implementing regulations, but also takes into account the facts that the Convention has not yet come into force and that resolution of many of the issues identified herein may require legislative action. The third is to outline an approach that could satisfy the risk assessment requirements set forth in EISA, recognizing, however, that any proposed approach will require a great deal of additional work to test its practical impact and to ensure that it continues to comport with the criteria set forth in EISA once the necessary information and data has been amassed.

In addition, NEI’s members believe that CSC implementation is sufficiently complicated that the rulemaking process should include face-to-face meetings between Department of Energy staff and industry stakeholders. Those discussions are likely to produce valuable insights for the Department’s consideration while maintaining an efficient and transparent process. In addition, input of other expert groups should be sought, including the Department of Commerce’s Civil

¹ The Nuclear Energy Institute’s members include commercial nuclear plant designers, architect and engineering firms, consulting services companies, manufacturing companies, fuel cycle companies, radionuclide and radiopharmaceutical companies, transportation companies and many other vendors servicing the commercial nuclear sector. As the policy organization for the nuclear energy industry, NEI fosters and encourages the continued safe utilization and development of nuclear energy and technologies in order to meet the nation's energy, environmental, and economic goals and to serve and support the commercial nuclear industry.

Nuclear Trade Advisory Committee, the President's Export Council, the Department of Commerce's Manufacturing Council and those participating in the National Export Initiative.

Finally, given the negative impact that shifting contingent costs to domestic nuclear suppliers will have on their ability to compete in the global market, NEI and its members intend to explore with the Administration and Congress alternatives to the current statutory approach. NEI recognizes that the rulemaking DOE is pursuing responds to a mandate imposed by Congress, but we wish to be clear that industry suppliers would not support any rule that fundamentally undermines the purpose of the CSC by forcing them to face potentially large and uncertain costs or providing a disincentive to export goods and services.

II. Background

Section 934 of the Energy Independence and Security Act of 2007 establishes a framework for implementation of the CSC. The CSC provides a global legal regime governing civil nuclear liability by establishing a multi-tiered system to ensure adequate and timely compensation for third party liability associated with a "nuclear incident" at a "covered installation" in a country that is a CSC party. The first tier of compensation under the CSC for all damages related to a nuclear incident at a covered installation is to be paid in a manner pursuant to the law of the installation country (up to 300 million special drawing rights ("SDRs")).² In the event the first tier is insufficient, countries that are parties to the CSC would be called upon to contribute to a "supplementary compensation fund" to be used to pay the additional damages up to a defined amount. That is, the maximum liability for each country's contribution to the supplementary compensation fund is determined by a formula that takes into account the countries participating in the CSC.

Section 934 of the Act establishes a retrospective risk pooling program as the mechanism for funding the United States' contribution to the supplementary compensation fund. Section 934 is so designed because Congress determined that the United States' contribution to the supplementary compensation fund *may not* "shift to Federal taxpayers liability risks for nuclear incidents at foreign installations". The Act further specifies that the Secretary of the Department of Energy shall establish, by regulation, "the risk-informed assessment formula for the allocation among nuclear suppliers of the contingent cost resulting from a covered incident" that is not a Price-Anderson Act incident. To develop the risk-informed assessment formula Congress directed DOE take into account risk factors "*such as*": (1) the nature and purpose of the goods and services supplied to covered installations outside the United States; (2) the quantity of those goods and services; (3) the hazards associated with the goods and services; (4) the hazards associated with the covered installation; (5) the legal, regulatory and financial institutions associated with the covered installation; (6) the hazards associated with forms of transportation. In addition, EISA allows DOE to exclude certain classes of goods and services and certain suppliers and to limit the period on which the risk assessment is based. The Act directs DOE to

² 300 SDRs is approximately \$450 million.

promulgate regulations setting forth the risk-informed assessment formula within three years of its enactment, i.e., by December 19, 2010.³

In order to develop a proposal acceptable to the wide variety of industry suppliers, NEI sought input on the attributes of an industry proposal on the risk assessment formula that DOE's rule must include. There was overall agreement in the industry that the proposal must be: (1) fair overall and consistent with the emphasis on risk in Section 934 of the Act; (2) equitably distributed among the various participants based on risk; (3) spread over the largest pool of eligible suppliers; (4) reasonably simple to calculate and, therefore, transparent to participants; (5) designed to include a "cap" or maximum dollar amount to be potentially levied on any individual supplier so as to avoid impeding its competitiveness in the international marketplace; and (6) appropriate for the development of an insurance product.

The industry's identified attributes are wholly consistent with the legislative history contained in the Senate Committee Report.⁴ In particular, the Senate Report states that DOE is obligated to "ensure that the burden imposed by the risk-informed formula is shared in a fair and equitable manner, and that the contingent cost is not allocated disproportionately to one supplier." Further, the Senate concluded that the burden should not fall on a single supplier or, possibly, a single class of suppliers, and that "the share of the contribution assessed on a nuclear supplier should be determined principally by the risks and hazards associated with such nuclear supplier's goods and services, as indicated by the factors listed in the Act." The Senate Report also states that, "the formula may provide for a minimum and maximum share to be borne by nuclear suppliers not otherwise excluded from the formula." Taken together, the Senate seemed to envision an equitable assessment that can easily be calculated to enable each supplier to clearly understand the range of possible amounts to be collected and one that includes a cap or maximum on liability on a per-company basis.

Equally important, in apparent recognition of the potential for the risk assessment formula to impose significant burdens on U.S. nuclear suppliers, the Senate Report instructed the Secretary to "(i) minimize any adverse competitive impact of this Act on nuclear suppliers in the United States or foreign markets, and (ii) avoid discouraging nuclear suppliers from engaging in manufacturing, research, and development or other activities in the United States or from participating in U.S. Government-sponsored projects or activities either in the United States or abroad."

III. Overview of Recommendations in Response to the NOI

As is explained in detail in the sections that follow, NEI has developed recommendations for next steps in the process as well as general principles that should be applied in developing a risk-informed cost allocation framework. To illustrate how the principles might be applied in

³ As noted herein, NEI recommends DOE not to proceed with the rulemaking until considerably more data is collected and further in-depth discussions with industry suppliers have taken place. If DOE proceeds, NEI believes the effective date of the implementing regulations should be deferred until at least the CSC comes into force.

⁴ Convention on Supplementary Compensation for Nuclear Damage contingent Cost Allocation, Rep. 109-346 (Sept. 25, 2006) ("Senate Report").

practice, the Attachment to these comments depicts (1) three general categories of suppliers; (2) the relative risk potentially assigned to each category of exported goods and services supplied by a nuclear supplier to a covered installation in a CSC country, and (3) the relative risk potentially associated with various kinds of facilities. In sum, the Attachment is intended to represent a possible framework—based on the preliminary views of industry suppliers—for a graded approach to responsibility for contributing to the supplementary compensation fund.

NEI recommends that, prior to issuance of a proposed rule, DOE:

- Submit a report to Congress immediately to explain that action on the regulation should be deferred based on the need to (i) accommodate domestic suppliers' interest in seeking amendment of EISA to enhance the competitiveness of U.S. companies, and (ii) collect the information and data necessary to support a risk-based allocation system.
- Prepare for the rulemaking by holding face-to-face meetings with industry stakeholders and seeking input from other groups of experts.
- Issue a public notice regarding additional information and data being sought to support a cost allocation method based on an assessment of risk.
- Collect risk-related and other data relevant to each category of supplier (including by soliciting information and comments from persons or entities who believe they may fall within each subcategory) and facility.

When DOE reaches the point at which it is appropriate to consider structuring an allocation method, the Department should ensure that:

- A list of covered installations is available to parties potentially responsible for funding the U.S. portion of the supplemental fund under the CSC.
- Specific categories of covered installations and of goods and services, on which it will seek to make a judgment of relative risk, are well defined.
- Responsibility for contingent costs is “graded” so that suppliers of goods and services to the facilities or activities that pose relatively greater risks are also responsible for relatively greater portions of contingent costs.
- Responsibility for contingent costs is equitably distributed among various participants within risk-related categories and, similarly, spread over the largest pool of eligible suppliers.
- A maximum share of the contingent costs, i.e., a per company “cap,” is established so that no individual company bears a disproportionate part of the U.S. government’s financial liability under the CSC.

- The cost allocation formula is both reasonably simple to calculate and sufficiently well defined and transparent, so that risk financing options (most importantly, including private or other insurance vehicles) can be developed.
- The cost allocation formula will not result in a competitive disadvantage for U.S. nuclear suppliers.

IV. Discussion

A. Action on and timeframe for this rulemaking.

Despite Congress' directive to promulgate implementing regulations by mid-December of this year, the CSC is not yet in force. It may not come into force for quite some time. As such, NEI strongly urges DOE to inform Congress of the need to defer the rulemaking beyond the December 2010 date specified in EISA in order to conduct further in-depth discussions with industry suppliers and to collect the necessary data to determine how a risk-based allocation system should be structured to avoid a potentially devastating competitive impact.

As noted throughout the discussion herein, there are many issues that must be addressed in order to construct a cost allocation system that neither burdens domestic suppliers with unreasonable costs nor provides a disincentive to export nuclear goods and services. Examples include the impact of a risk based formula on individuals and groups of nuclear suppliers, the basis for determining how to structure a risk-based formula (particularly in light of the vague criteria set forth in EISA), the scope of additional reporting requirements and how associated administrative burden can be limited. We also would expect that other issues requiring further consideration are likely to flow from DOE's further analysis.

If DOE does proceed to propose implementing regulations in the near term, NEI requests that they not be made effective until at least the CSC comes into force. Doing so would give the industry the time it needs to seek legislative change, while not impeding full implementation of EISA should the CSC come into force in the near term.

B. The Act's potential to create a significant competitive disadvantage to U.S. suppliers and a disincentive to participate in activities overseas.

As has become ever more apparent in recent years, the world is on the cusp of developing a burgeoning global nuclear energy industry. Interest in expanding nuclear generating capacity is growing rapidly and in a very wide variety of countries previously without civil nuclear programs. By 2020, the International Atomic Energy Agency (IAEA) expects a 16 percent increase in world nuclear generating capacity. IAEA also projects at least 60 new reactors will be developed worldwide in the next 15 years. U.S. companies in the nuclear supply chain are gearing up to meet expected worldwide demand, which is likely to occur on a larger scale ahead of U.S. demand for similar services. Given the rapid increase in new nuclear development internationally and, in turn, the growing international market opportunity, requiring domestic suppliers to bear the burden of the U.S. contingent costs under

the CSC flies in the face of President Obama's announced goal to double U.S. exports in five years.

Domestic suppliers agree with the authors of the recently released Report to the President on the National Export Initiative who state, "Put simply, when America exports, America prospers." Further, in explaining why the nation needs a National Export Initiative, the report articulates the very arguments commercial nuclear energy industry suppliers believe support a change to the current approach to repayment of the contingent obligation under the CSC:

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).

In a speech to the Cleantech Group in June of this year, Assistant Secretary of Commerce Suresh Kumar expounded on the Obama Administration's commitment to clean energy technology and, specifically, to opportunities in India and China. Given the Assistant Secretary's claim that the Obama Administration is pushing forward to create a clean energy economy, and President Obama's frequently stated position that including new nuclear generation is integral to that objective, it is axiomatic that U.S. manufacturers and other nuclear industry suppliers must have fair access to international markets. That access will, in turn, help to undergird the U.S. economy through job creation and additional tax base.

Construction of new nuclear power plants in other nations should provide a substantial opportunity for domestic suppliers of commodities and manufacturers of plant components. We estimate that the international market represents potential orders of over \$400 billion in equipment and services over the next 15 years. Depending on the reactor design, a single new nuclear power plant may require approximately 400,000 cubic yards of concrete, 66,000 tons of steel, 44 miles of piping and 300 miles of electric wiring and 130,000 electrical components. In light of the \$400 billion market potential, and the Commerce Department's estimate that every

\$1 billion of exports by U.S. companies represents 5,000 to 10,000 domestic jobs, unquestionably, fostering opportunities for U.S. export in this sector will provide a benefit overall to this nation's economy.

It is also indisputable that international competitors of domestic nuclear suppliers will acquire a competitive advantage as a result of the Act's requirement that domestic nuclear suppliers bear the contingent cost of a covered incident. In this regard, NEI understands that the countries that are parties to the Paris Convention on Third Party Liability in the Field of Nuclear Energy of 29 July 1960 ("Paris Convention") have generally indicated that they are not likely to join the CSC. Competitors of U.S. manufacturers and providers of products and services for the nuclear energy industry include a substantial number of companies in Paris Convention countries. These companies will not bear the contingent costs that the Act allocates to U.S. nuclear suppliers.

NEI urges the Administration to join the industry in educating members of Congress about the unintended but, nevertheless, disadvantageous impact of implementation of the Act as it is currently structured. Further, EISA affirmatively directs the Secretary to

"[S]ubmit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a report on whether there is a need for continuation or amendment of this section, taking into account the effects of the implementation of the Convention on the United States nuclear industry and suppliers."

The Act requires this obligation to be met by December 19, 2012. However, because of the serious competitive impacts that will result from implementation of the Act's reimbursement requirement, the Secretary should provide a report to Congress well before that deadline outlining the need to amend the Act to enhance the competitiveness of U.S. nuclear suppliers by limiting their obligations to contribute to the supplementary fund. Although the range of legislative options is not delineated herein, potential changes envisioned by the industry would be consistent with this Administration's strategy to double exports over five years and, even more particularly, with its objective of driving toward a green economy globally.

C. The definitions of "covered installation" and "nuclear supplier" directly affect the categories of entities potentially subject to the retrospective assessment.

1. Definition of "covered installation."

The Act defines "covered installation" as follows: "The term 'covered installation' means a nuclear installation at which the occurrence of a nuclear incident could result in a request for funds under Article VII of the Convention."⁵ In its NOI, DOE states that it "views this definition as clear, except that it is dependent upon an understanding of the term "nuclear installation."

⁵ A request for funds under Article VII of the Convention can only be made by a Party to the CSC.

Since the CSC and the Act do not provide a clear understanding of the term “nuclear installation,” NEI believes that the term covered installation must be clarified in DOE’s rule.

As DOE points out in its NOI, “the term ‘nuclear installation’ is not defined in Section 934 or the AEA.” Moreover, DOE observes that “the CSC generally uses the definition set forth in the Paris Convention . . . the Vienna Convention on Civil Liability for Nuclear Damage of 21 May 1963 (“Vienna Convention”) or Article 1(b) of the Annex, depending on which instrument is applicable to a particular nuclear incident.” DOE observes that for “nuclear incidents outside the United States not covered by the PAA, [Price-Anderson Act] the Department’s current approach would be to use the definition of nuclear installation applicable under the CSC to determine a covered installation.”

DOE’s stated intent to rely on the CSC’s definition of nuclear installation as the basis for a definition of covered installation will not adequately inform nuclear suppliers of the facilities in CSC countries at which a nuclear incident could result in contingent costs that such suppliers would be required to bear. Clarity concerning the identity of such facilities is essential to nuclear suppliers’ ability to know whether a nuclear installation outside the United States is subject to a CSC country’s mandatory financial protection and, thus, will qualify as a covered installation. NEI suggests that DOE make available on its website the list of covered installations so that nuclear suppliers may make informed decisions as to whether they will receive the protection of the CSC if they supply goods or services to particular nuclear installations in countries that are Parties to the CSC. DOE’s rule should state that the obligation of nuclear suppliers to bear their respective shares of the contingent cost will be applicable only with respect to a nuclear incident at a covered installation in a CSC country if that installation is on the list supplied to the other CSC parties at the time the nuclear incident took place.

2. Definition of “nuclear supplier.”

The Act defines the term nuclear supplier as follows: “The term ‘nuclear supplier’ means a covered person (or a successor in interest of a covered person) that (A) supplies facilities, equipment, fuel, services, or technology pertaining to the design, construction, operation, or decommissioning of a covered installation; or (B) transports nuclear materials that could result in a covered incident.” As DOE points out in its NOI, the term nuclear supplier is “potentially very broad in scope, complex, and subject to interpretation.”⁶

NEI believes DOE’s rule should establish reasonable bounds on the term nuclear supplier as nuclear suppliers benefit from: (1) the CSC’s requirement that, through CSC parties’ adherence to the Vienna Convention or the Paris Convention or their establishment of national laws that conform to the principles set forth in the Annex to the CSC, CSC Parties must provide that only the Operator of covered installations outside the United States is liable for nuclear damage resulting from a nuclear incident at such facilities; (2) the CSC’s mandatory minimum financial security (300 million SDRs); and (3) the CSC’s requirement that claims be brought solely in the courts of the Installation State, thus protecting nuclear suppliers, upon the CSC’s

⁶ We note, for example, that some suppliers have raised a question about the point at which nuclear material becomes “fuel” and whether the supplier of nuclear material would be subject to a supplementary fund obligation.

entry into force, from claims brought in U.S. courts with respect to a nuclear incident at a covered installation outside the United States.

At the outset, DOE's definition should recognize that Congress did not intend to include United States persons that supply goods and services *only* to U.S. nuclear power plants and associated fuel cycle facilities or supply goods and services *only* to facilities in countries that are *not* Parties to the CSC at the time of a nuclear incident at a covered installation. As stated in section 934(a)(2) of the Act,

“the purpose of this section is to allocate the contingent costs associated with participation by the United States in the international nuclear liability compensation system established by the Convention on Supplementary Compensation for Nuclear Damage . . . (B) with respect to a covered incident outside the United States that is not a Price-Anderson incident, by allocating 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.”

In stating the Act's purpose with respect to covered incidents outside the United States, Congress intended that the term nuclear supplier include only covered persons that supply goods or services to covered installations *outside* the United States. Therefore, DOE's definition of nuclear supplier should expressly specify that covered persons whose supply of goods and services is solely to NRC-licensed reactors and other nuclear installations in the United States or only to countries that are not parties to the CSC are not included in the definition of nuclear supplier to which CSC-related obligations would attach.

In defining the term nuclear supplier, DOE also should give meaning to the Act's reference to supply of goods and services “pertaining to” a covered installation outside the United States. NEI submits that, in using the phrase “pertaining to” covered installations, Congress intended to establish a direct and objectively ascertainable relationship between the covered installation and the supply of the specified items. In NEI's view, the term nuclear supplier could include, but not necessarily be limited to,⁷ those covered persons who (1) obtain or rely on licenses from the Department of Commerce (“DOC”) pursuant to 15 CFR Part 734 or the Nuclear Regulatory Commission (“NRC”) pursuant to 10 CFR Part 110, or authorizations from the Department of Energy, pursuant to 10 CFR Part 810 to export facilities, equipment, fuel or services for use in a covered installation outside the United States; or (2) manufacture, provide or produce facilities, equipment, fuel or services specifically for use in covered installations outside the United States. Suppliers of goods and services that do not obtain or rely on a DOC or NRC export license or a DOE Part 810 authorization or whose supply contracts do not specify or

⁷ We have included the possibility that other screening criteria may be used because, for example, an exemption may be granted under Section 110.10 and certain items may be exported pursuant to a general authorization for which no application is required. In those cases, it would be difficult if not impossible to identify those entities who otherwise may be appropriately determined to be a nuclear supplier for purposes of the allocation assessment.

indicate that the intended end use of items or services is in a covered installation outside the United States, should not be deemed to have an intent to supply such goods or services to such installations.⁸

The point is that the classes or categories of covered persons used to identify nuclear suppliers should have a reasonable relationship with the covered installations in CSC countries that receive exported goods or services and, thereafter, any exclusionary factors may be applied to obviate their participation in the cost allocation program on other grounds. Applying the criteria in DOC, DOE and NRC export control regulations should prove helpful in distinguishing between goods and services for nuclear purposes and goods and services in general commerce (which generally fall outside the scope of DOC, DOE and NRC export controls). Those in general commerce could be deemed not to have a relationship that is sufficiently direct and objectively ascertainable to warrant their inclusion within the term nuclear supplier.

By defining the term nuclear supplier in the manner suggested above, DOE will create a desirable objective standard that will allow covered persons to determine whether they are a nuclear supplier.⁹ Covered persons that obtain export licenses from NRC or DOC or rely on general or specific DOE authorizations pursuant to Part 810 in order to provide facilities, equipment, fuel or services for use in a covered installation outside the United States are in a position to know whether they are supplying goods and services to covered installations outside the United States and, thus, derive a direct benefit from the supplementary compensation system established by the CSC. Unless they are excluded through application of other criteria derived from the Act, such covered persons whose supply of services, components or materials to covered installations depends upon NRC or DOC export licenses or DOE Part 810 authorizations appear to be within the Act's intended scope of nuclear suppliers (including those who source goods and services outside the United States but supply them under a Part 810 authorization).

In order to be a nuclear supplier pursuant to Section 934(a)(1)(5), a covered person must have been "relieved from potential liability for which insurance is not available." A corollary of this fundamental principle of the Act is that the term nuclear suppliers should not include covered persons that supply only goods and services that cannot reasonably be said to expose them to a risk of liability for nuclear damage resulting from a nuclear incident at a covered installation. NEI thus agrees with DOE's suggestion, in its NOI, that "the criteria related to the risk-informed assessment formula at subsection 934(e)(2)(C)(i) and factors for consideration in determining the formula at subsection 934(e)(2)(C)(ii) (whereby certain nuclear suppliers could

⁸ Of critical import in the context of identifying the pool of nuclear suppliers to whom the additional risk factors are to be applied to determine whether they are within the scope of nuclear supplier (and therefore obligated under the formula) will be to ensure that the lists of authorizations and licenses, in fact, identify those entities that have previously or are supplying goods and services to foreign installations. At this point, there is insufficient data available upon which a conclusive determination may be made. NEI's suggestion should not be interpreted as a basis for concluding that the authorizations and licenses represent the entire universe of entities to be included in the initial screen for nuclear supplier.

⁹ We note also that U.S. operations of foreign companies supplying to a covered installation in a CSC country should be included in the contingent cost allocation company. This is particularly important to ensure U.S. companies are not further disadvantaged by the supplementary funding obligation.

be excluded) are directly relevant to determining which nuclear suppliers are contemplated within the Act.”

DOE’s risk assessment should begin with an analysis to determine whether certain covered persons should be excluded from the definition of nuclear supplier, based on objective, risk-informed criteria. The NRC regulations offer a good starting point for such a determination. 10 CFR Section 110, Appendix A and 10 CFR Part 21 may provide helpful guidance in this regard. 10 CFR 110, Appendix A, would identify suppliers of items within or attached directly to the reactor vessel, the equipment which controls the level of power in the core, and the components which normally contain or come in direct contact with or control the primary coolant of the reactor core. Part 21 applies to persons who produce “basic components” or dedicate “commercial items” for use in NRC-licensed facilities. As the companies encompassed by the cited NRC regulations are primarily suppliers to commercial reactors, other suppliers of goods or services to front- and back-end fuel cycle facilities or participation in transportation could be separately identified as suppliers with any exclusionary or other factors then applied.

The approach suggested above should be fair, objective and transparent because the NRC and DOE regulations and the other proposed criteria will serve to distinguish—at least in broad terms—between providers or services and products that have a direct relationship to covered facilities and those that do not. Establishment of any ad hoc, new standard for determining whether covered persons should be included within the definition of nuclear supplier, based on the Act’s risk factors, would result in a lack of certainty, confusion and difficulty of covered persons to determine whether they are within the class of nuclear suppliers under the Act.

3. The “de minimis” criterion.

DOE seeks public comment on the Secretary's discretion to "exclude a nuclear supplier with a de minimis share of the contingent cost." The NOI states that DOE's "current approach would be to interpret the 'de minimis' criteria to mean that nuclear suppliers likely to contribute only a small percentage of the overall contingent cost should be excluded from the formula." DOE states that it "could incorporate these criteria into its regulations by excluding those suppliers that would contribute less than a specified percentage (e.g., 0.5%) of the contingent cost." Recognizing the "uncertainty" of this approach, DOE explains that it "is considering alternative approaches that would implement the 'de minimis' criteria in a manner that provides upfront certainty as to which suppliers would be included in the program." For example, DOE "might exclude suppliers that provide less than \$50,000 per year in goods or services."

DOE could establish a de minimis criterion that excludes a covered person from the definition of nuclear supplier if the company has total sales to all covered installations after the CSC enters into force of less than, for example, \$1 million annually. The annual sales volume would take into account total sales of goods and services to covered installations in CSC countries outside the United States. Determining total annual sales of individual nuclear suppliers likely will require that a separate report be submitted or included with other reporting obligations. Application of this criterion may need to be based on a five-year look-back period to ensure equitable treatment. In this regard, DOE should consider whether the \$1 million or other de minimus limit is to be applied on a rolling 5 year average or on some other basis to take into account variances in export sales.

C. The definition of certain of the risk factors and the manner in which each factor is taken into account in the risk-informed assessment formula will significantly affect individual allocations.

In consultations with its members, NEI thoroughly reviewed various approaches to identifying goods and services that present negligible risk or are not intended specifically for use in nuclear installations. NEI was guided by the paramount need to identify classes and categories that are as objective as possible and will be perceived to be fair in light of the Act's purposes. Particular attention was paid to the Act's express requirement that DOE promulgate rules that will achieve the Act's objectives without creating a competitive disadvantage for U.S. vendors and, thereby, result in a loss of U.S. jobs or a failure to create new jobs that otherwise may have resulted from participation of such covered persons in international nuclear commerce.

The NOI states that DOE "believes that the public, and in particular the nuclear insurance industry, can provide valuable information to DOE regarding how the six risk factors enumerated in the . . . [Act] should be taken into account" in establishing the risk allocation formula. NEI's comments on DOE's proposed approach to each of the Act's six risk factors are set forth below.

1. Exclusion of goods and services with negligible risk and classes of goods and services not specifically intended for use in a nuclear installation.

NEI's views regarding goods and services with negligible risk and classes of goods and services not specifically intended for use in a nuclear installation are covered in the discussion of nuclear supplier as well as in subsections 2, 4 and 5 below. Again, it is important to emphasize that DOE should ensure that any definitive assessment of risk associated with a particular good or service, or category of good or service on which cost allocation is predicated is made by experts based on sufficient information and data.

2. Nature and intended purpose of the goods and services supplied by each nuclear supplier to each covered installation outside the United States.

DOE states in the NOI that its "current approach would be to interpret this risk factor, in light of the presence of other statutory criteria that could exclude nuclear suppliers providing goods and services with negligible risk and in classes not intended specifically for use in a nuclear installation." DOE further states that this factor "means that, as a general matter, only nuclear suppliers that provide goods or services specifically intended for use in structures, systems, and components ('SSCs') that are important to safety at a nuclear installation should be included." DOE seeks comments on its preliminary conclusion that certain suppliers would be excluded from participation in the retrospective risk pooling program. In its NOI, DOE explains, however, its view that suppliers such as designers and builders of nuclear islands (involving nuclear steam supply systems, reactors, etc.) and designers, manufacturers and sellers of nuclear fuel assemblies or on-line nuclear measurement devices also would be included in the formula.

To achieve a fair and objective formula, DOE could establish categories or classes of covered persons that supply goods and services for covered installations outside the United States (i.e., covered installations in CSC countries). In the Attachment to these comments, NEI has identified an approach that is based on three categories generally related to the type and relative risks of goods or services supplied and to the facility to which the goods and services are supplied. As is shown on the attached chart, the categories potentially assigned a larger portion of liability generally correlate to the types of nuclear suppliers whose goods and services have a material effect on safe operation of covered installations outside the United States.¹⁰

As is shown on the Attachment, the risk-informed formula could reasonably assign the highest level of responsibility for the contingent cost to a group of suppliers including those that supply items within or attached directly to the reactor vessel, the equipment that controls the level of power in the core, and the components that normally contain or come in direct contact with or control the primary coolant of the reactor core. (i.e., those identified in 10 CFR Section 110, Appendix A, 1-9). Also potentially included in that category would be suppliers of basic components and systems necessary to mitigate design basis accidents. Other suppliers might include nuclear fuel fabricators, operating services, and architecture, engineering and construction services. The logic of grouping these entities together would be based on the goods and services they supply directly supporting safe reactor operation.

As is also depicted on the Attachment, another general category could encompass goods and services supplied to the front and back ends of the fuel cycle. This category could be assigned a somewhat smaller portion of the contingent costs as there is a reasonable basis to conclude that suppliers to the front end of the fuel cycle would not contribute as significantly to the risk of a call for funds resulting from a nuclear incident at a covered installation outside the United States. Similarly, there is a reasonable basis to believe that there is a very low likelihood that suppliers of goods and services related to high level waste storage, i.e., suppliers to the back end of the fuel cycle, would contribute significantly to a nuclear incident at a covered installation outside the United States.

The third category could include suppliers of transportation-related goods and services. However, the transportation of nuclear materials by rail, truck and ship has been safely conducted since the 1960's. The shipments are carefully managed by responsible, experienced companies, some of which have transported thousands of casks over millions of miles without a single incident resulting in the release of radioactivity. Moreover, the transportation of nuclear materials is strictly governed by an established system of international regulations that have led to an impressive record of safety over many years. Comprehensive emergency plans exist to address any eventuality en route. As such, DOE could assign a proportionately lesser portion of contingent costs to this category of suppliers.

¹⁰ Suppliers in other categories also would share in the liability but likely in lesser amounts based on this and other formula factors.

3. The quantity of the goods and services supplied by each nuclear supplier to a covered installation outside the United States

The NOI states that under "the Department's current approach, 'the formula' should take into account the amount of goods and services provided by a nuclear supplier as an indicator of the extent to which a nuclear supplier contributes to overall risk." DOE desires to have public comments on "whether this factor should be assessed on the basis of the goods or services supplied, the volume of the goods or services supplied, or some other criteria."

In applying this risk factor to development of its risk-informed assessment formula and, in particular, in determining how suppliers within a category should share the portion of the contingent costs assigned to their category overall, DOE could take into account the overall dollar amount of a nuclear supplier's sales to covered installations outside of the United States over a reasonable period of time, e.g. during the five years prior to the nuclear incident resulting in a call for funds or, if shorter, the period since the CSC came into force. In applying this non-risk factor to the members of each category, the formula would address the intra-category equity objective associated with suppliers who derive revenues from sales of goods and services in that category to covered installations. Thus, assuming the formula does not apply on a per capita basis, each participant's pro rata share of that category's costs could be based, in part, on the dollar amount of its sales to covered installations outside of the United States. We recognize that there may be alternatives to the revenue approach to achieve intra-category equity, and encourage DOE to consider them as well.

4. The hazards associated with the supplied goods and services if they fail to achieve the intended purposes

In its NOI, DOE states that its current approach is to "exclude nuclear suppliers providing goods and services with negligible risk or in classes not intended specifically for use in a nuclear installation." DOE adds that "only nuclear suppliers of safety-related goods or services would be included in the formula." DOE "expects that the relative hazard of a good or service may be evaluated in terms of whether it is a likely contributor to a covered incident . . . i.e., is it so hazardous as to likely cause a covered incident of a magnitude that first-tier compensation is inadequate)", thus triggering a need for CSC Member States to make their respective supplementary compensation payments to the CSC Member State in which such a nuclear incident took place.¹¹

As shown in the Attachment, the arrows on the left provide a general perspective on the relative risk associated with each category. Potential nuclear suppliers are shown in the boxes in the center of the chart. Those boxes approximate categories of goods and services which may contribute to the risk of a nuclear incident, although we believe that risk to be very low overall. The top category shown could be assigned a greater proportion of the contribution and a lower proportion assigned to each category below. In sum, as directed by EISA, the approach attempts

¹¹ DOE here and in several other places in its NOI refers to "safety-related" goods and services. It is important for DOE to clarify whether, in the context of the risk-informed formula it intends that term to be defined pursuant to NRC regulations or whether DOE is expressing more generally a material relationship to safety.

to ensure that the relative risk drives the proportion of the liability assigned to each category of goods and services as well as taking into account the relative risk of the various facilities.

In the event of a future call for funds, suppliers not otherwise excluded would contribute to the portion of the contingent cost assigned to that category, irrespective of whether they or a member of their category caused or contributed to a covered incident. This, in turn, requires consideration of the Senate Report's suggestion that "the formula may provide for a minimum and maximum share to be borne by nuclear suppliers not otherwise excluded from the formula." While all entities correctly defined as nuclear suppliers and not otherwise excluded may be required to bear some portion of the contingent cost, it is also critical that DOE establish a "cap," i.e., a maximum dollar amount on any single company's liability. We understand that there are challenges associated with establishing a cap when, for example, there is not yet a full understanding of the number of companies who will be subject to the obligation to contribute to the supplementary fund. However, an outside limitation on liability must be established to allow companies to plan for the highly unlikely events which would give rise to a call for supplementary funds.

5. The hazards associated with the covered installation outside the United States to which the goods and services are supplied.

DOE observes in the NOI that "some nuclear installations bear more risk or hazard than others" as a result of a "variety of factors" such as population density around the facility, the particular "class" of the facility, which DOE believes may be established "based on common nuclear industry standards for hazard categorization and accident analysis techniques." Thus, DOE anticipates that "the risk formula would include consideration of not only the type of good or services provided by the nuclear supplier, but also the type of nuclear installation that will utilize such good or service."

The goods and services encompassed within the first of the three categories set forth in NEI's proposed approach are intended for use in power reactors or research reactors. NEI believes that nuclear suppliers to covered installations outside the United States that are not power reactors or research reactors should be assigned more limited responsibility under DOE's risk-informed formula. A lesser level of responsibility for such nuclear suppliers can be based, at least in part, on the NRC's judgment, as contained in 10 CFR Part 140, that reactors and facilities that are licensed by the NRC to possess and process fuel containing plutonium are the only facilities that may enter into an indemnification agreement with the NRC, pursuant to the Price-Anderson Act. The NRC has determined that other types of NRC-licensed facilities, such as nuclear fuel fabrication facilities, do not present a sufficient risk of a nuclear incident to warrant their inclusion within the Price-Anderson Act's mandatory financial protection. For purposes of DOE's risk-informed assessment formula, the same distinction could be drawn for covered installations other than reactors and facilities that are licensed to process nuclear fuel containing plutonium.

Following the logic just described, and as depicted on the right axis of the attached chart, the various categories of goods and services are associated with the category of covered installations to which such goods and services are supplied.

6. The legal, regulatory, and financial infrastructure associated with the covered installation outside the United States to which the goods and services are supplied.

To illustrate its "current approach" with respect to this risk factor, DOE states that, "for example, a nuclear installation situated in a country with little regulatory oversight of public health and safety, or inadequate financial requirements for the nuclear operator, or without the availability of judicial recourse, may lead to a relative risk factor greater than the supply of goods or services to a nuclear installation in a country with rigorous regulatory oversight, robust financial requirements, and an efficient judicial system." DOE recognizes that "this type of risk factor may be difficult to assess in a quantitative fashion" but nevertheless plans to give this statutory risk factor a "good faith reading."

This risk factor will be very difficult to implement and DOE should consider not including it in the formula. Specifically, the Act states that the risk factors "such as" those listed are to be applied. A plain reading of the statute would allow DOE discretion to determine that this factor should not be included. Further, it appears DOE reads the CSC and the statute to mean that, once a supplier supplies to any CSC covered installation, it may be subject to the supplementary fund obligation even if it did not supply to the country in which the incident took place. If that interpretation is retained, whether or not a party to the CSC has a weak legal, regulatory or financial structure would seem irrelevant as the obligation for a supplier to any CSC covered installation to pay an allocated portion also would remain.

D. The hazards associated with particular forms of transportation

The NOI states that DOE's "current approach would be to interpret this risk factor to require consideration of how contingent costs should be allocated between suppliers of goods and services to nuclear installations and suppliers of transportation services, as well as an assessment of the various forms of transportation and the relative risks of the transportation." To the extent DOE contemplates differentiating between relative risks of transportation via rail, truck and ship, a clear explanation of the empirical basis for that differentiation should be provided and comments sought from stakeholders prior to memorializing it in a rule. As already noted, NEI posits that the relative risk of transportation contributing to a covered incident likely is sufficiently low to suggest that transportation-related goods and services could be assigned a low level of contribution relative to the other two categories in the chart at the end of this paper. The actual assignment of relative risk, however, should only be made after an expert analysis based on information collected by the DOE is conducted.

E. The period on which the risk assessment is based.

DOE interprets this provision of the Act "to give the Department discretion to determine the time period to use in the risk-informed formula." The time period "may be set based on several relevant factors, including when the majority of domestic nuclear suppliers provided supplies in the global market and how many of those suppliers continue in existence today, or based on what suppliers are currently in existence for which the goods or services they supplied are likely to contribute to a future nuclear incident." A rolling period extending five years back from the date of the incident that led to a call for reimbursement of the government's payment of

supplementary funds, or if shorter, the period from the date of the incident to the date the CSC came into force, may be appropriate.

F. DOE's collection of additional information concerning development of the risk allocation formula.

DOE requests comment on whether it should include in its regulations provisions for collection of information "necessary for developing and implementing the formula for calculating the deferred payment of a nuclear supplier" that is required by the Act. Because the risk allocation formula will be the means by which DOE will assess respective shares of the supplementary fund, ensuring that the formula is based on sufficient and verifiable data is of the utmost importance. Most, if not all, of the risk factors require DOE to collect considerably more information in order to ensure their fair application. While there are a number of government reporting processes that can be used, critical features of any reporting system include ease of use, transparency and a reasonable frequency of reporting. Further, maintaining a substantial portion of the information as confidential also is of paramount importance. Finally, limiting the administrative burden while ensuring sufficient information is collected and analyzed will be a key to the smooth functioning of the cost allocation program should a call for supplementary funding be made.

G. Challenges to the development of risk financing operations including private insurance.

In its NOI, DOE asks for comments on "what type of information would be necessary to assist the nuclear suppliers and insurers of nuclear suppliers in the establishment of private insurance for the deferred" U.S. payment in the event of such a nuclear incident. DOE further notes its interest in obtaining "specific and detailed comments on the type of information necessary to develop and implement such a private insurance system from nuclear suppliers and insurers of nuclear suppliers as such commentary would be most relevant to an appropriate formulation and implementation of this requirement."

NEI has met with insurance industry representatives to address the potential use of an insurance scheme as a risk financing option for suppliers' potential CSC-related liability. Based on those discussions, NEI learned that there are a number of significant issues that reduce the prospect of developing private insurance programs for this potential liability. First, there is no limit on the number of losses for which a nuclear supplier would be obligated under U.S. implementation structure. Second, the potential for a continually changing liability amount as more countries become CSC Member States creates uncertainty as to the ultimate limit of liability. Third, there is a pending question about the length/duration of financial exposure (e.g., is it the lifetime of the reactor?). Fourth, there is likely to be a limited pool of potential insureds among whom the financial risk is to be shared. Fifth, the data collection to support an insurable interest may require a massive and, therefore, costly effort not appealing to either insurance companies or potential insureds. Sixth, based on the nature of the obligation created by the CSC, it is unclear whether this liability would even constitute an insurable risk. At this point it appears the private insurance industry may not immediately (if at all) be interested in offering insurance and, thus, there is no way to judge whether a reasonably priced premium will be offered. Given that the "frictional costs" of a private insurer are likely to be relatively high, a simplified rating

scheme is likely to complicate the ability of insurers to evaluate risk, and there is a lack of predictability needed to calculate exposure to loss, the government should consider actions it can take to address the potential lack of a private insurance option.

V. Conclusion

NEI, on behalf of its nuclear supplier members, believes DOE's issuance of the NOI is a productive preliminary step to ascertain whether the government can implement a fair, equitable, understandable and transparent approach to the proposed risk-informed assessment formula for reimbursement of the supplementary compensation fund. Unfortunately, in our view, and as DOE appears to recognize in its discussion of many of its obligations under Section 934 of the Act, there are many difficult issues which, depending on their resolution, will have a very significant impact on individual and groups of nuclear suppliers. Importantly, these impacts could make nuclear suppliers unwilling or unable to participate in the international market created by the worldwide surge in new nuclear development.

As noted at the outset of these comments, NEI recommends that DOE take the immediate step of collecting data on the potentially negative impact that the supplementary compensation fund reimbursement scheme will have on the competitive position of domestic nuclear suppliers and potential U.S. jobs. If, as we have concluded, the Department's analyses demonstrate that the effect of implementing the Act will be to undermine the objectives of the President's National Export Initiative, or otherwise stifle the ability of domestic suppliers to compete internationally and contribute to the domestic economy in terms of employment, tax revenues and technological innovation, DOE should turn its efforts to reporting that information to Congress with a recommendation to amend the Act to eliminate the burden on industry.

Additionally, NEI has identified several, but certainly not all, of the issues for which considerably more information must be collected in order to establish an allocation formula. Even before the information and data is amassed and analyzed, the Department should meet with industry stakeholders and other experts.

Given that the CSC is not yet in force and not likely to come in to force in the near-term, DOE has time to ensure the implementing rule is both technically sound from a risk-informed perspective and not an impediment to domestic suppliers' efforts to compete in the global nuclear market. If the rulemaking goes forward, the regulations should not be made effective until the CSC comes into force.

ATTACHMENT

Relative Risk Relationship

Facility Relationship



Higher

Lower

- 10 CFR Appendix A 1-8
- Architect, Engineering and Construction Services
- Basic Components/Systems for Design Basis Accident Mitigation
- Fuel Fabrication
- Operating Services

Reactor Related

- Front and Back End of Fuel Cycle Goods and Services

Front and Back End Fuel Cycle Facilities

- Transportation Goods and Services

Transport