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RE: Response to Notice of Inquiry on Preparation of U.S. Department of Energy's Report to Congress on the Price-Anderson Act

The Nuclear Energy Institute (NEI)[1] is pleased to provide the following comments in response to the U.S. Department of Energy's (DOE) Notice of Inquiry (NOI) regarding preparation of the Department's report to Congress on the need for continuation or modification of the Price-Anderson Act (Price-Anderson or PAA).[2] The U.S. nuclear industry works with DOE to support the agency's critical national security objectives and key missions. Our members provide the reactors and fuel for our Nuclear Navy, support our national energy security and nuclear deterrence, manage the U.S. government's spent nuclear fuel, and remediate our nation's nuclear sites. Indeed, a robust nuclear industry is critical to our national defense needs.[3] In carrying out their work, these contractors take on nuclear liability risk that is very hard to measure and that likely cannot be adequately insured through the private insurance market.

The protections to both the public and industry afforded under the PAA allow DOE and its contractors to continue their activities knowing that a robust framework exists for compensating claims. The PAA eliminates uncertainty regarding the compensation of individuals suffering damages as a result of nuclear incidents, and expedites the claims process, while providing nuclear liability protection for service

[1] The Nuclear Energy Institute (NEI) is responsible for establishing unified policy on behalf of its members relating to matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect and engineering firms, fuel cycle facilities, nuclear materials licensees, and other organizations involved in the nuclear energy industry.

[2] "Notice of Inquiry on Preparation of Report to Congress on the Price-Anderson Act," 86 Fed. Reg. 40,032 (July 26, 2021).

[3] *See* Nuclear Energy Institute National Security webpage.

providers. Without this protection against liability for nuclear damage, contractors will face uncertainty about nuclear liability risk and will be much less likely to perform mission-critical services to DOE.

For example, advanced reactors are anticipated to contribute to the fight against climate change by providing gigawatts of reliable carbon-free electricity generation at relatively low cost, as compared to other sources of generation. Their inherent safety features are also anticipated to improve the already strong safety case for nuclear power. However, maintenance of the current fleet and deployment of these next-generation systems require the stability provided by the current PAA regime. In the DOE context, PAA protection is required to ensure participation from the highest quality vendors, and may need to be expanded to allow advanced reactors to serve new mission-critical roles for the U.S. government around the world and in space.

In addition, failure to extend the PAA would be inconsistent with the Convention on Supplementary Compensation for Nuclear Damage (CSC), which sets the global norm for nuclear liability protection for both the public and providers, and requires that every participating country provide nuclear liability protection and channeling for a broad spectrum of nuclear facilities and nuclear incidents. If the U.S. were to fall out of compliance with the CSC, the commercial nuclear industry would face significant repercussions, and U.S. global leadership in nuclear power would decline.

Therefore, NEI remains in strong support of the PAA and believes it should continue to be implemented via an indefinite or long-term (*i.e.*, at least 50 year) extension of the Act. Our attached responses to the specific questions provided in the NOI support continued implementation of the PAA, largely in its current form. We do, however, suggest several areas where DOE and Congress could explore changes to expand the PAA framework in preparation for the future, including: increasing the $500 million indemnification amount provided for incidents occurring outside of the U.S.; expanding the scope of coverage for incidents occurring outside of the U.S. to include incidents involving material that is not owned by the U.S.; and ensuring that the indemnification amount for incidents occurring outside of the U.S. covers U.S. national security missions in space.

Our detailed responses to the 24 questions presented in the NOI are included in the attachment to this letter. If you have any questions or require additional information regarding NEI's comments, please feel free to contact Jerry Bonanno (jxb@nei.org).

Sincerely,

Ellen C. Ginsberg

Ellen C. Ginsberg

Attachment

U.S. DEPARTMENT OF ENERGY

Nuclear Energy Institute's Response to Notice of Inquiry on Preparation of U.S. Department of Energy's Report to Congress on the Price-Anderson Act

1. Should the DOE Price-Anderson indemnification be continued without modification?

DOE's Price-Anderson indemnification has been a necessary tool for supporting the U.S. government's national security objectives while providing the public with an effective method for compensation in the event of public liability claims. DOE's Price-Anderson indemnification also provides certainty for DOE contractors performing services on DOE projects that involve a risk of nuclear liability. Without this protection against liability for nuclear damage, contractors will face uncertainty about nuclear liability risk and will be much less likely to offer to perform mission-critical services to DOE. Therefore, we believe the indemnification should be continued. However, as discussed in later responses, NEI suggests several areas where DOE and Congress may want to consider further expansion of the PAA framework.

2. Should the DOE Price-Anderson indemnification be eliminated or made discretionary with respect to all or specific DOE activities? If discretionary, what procedures and criteria should be used to determine which activities or categories of activities should receive indemnification?

Price-Anderson indemnification should not be eliminated or made discretionary. For the reasons described above, it would be significantly detrimental to the public interest if this indemnification were to be withdrawn or made discretionary at this time. Such a change would create considerable uncertainty for the contractor community and make it more difficult for DOE to procure services for its nuclear complex.

3. Should the DOE Price-Anderson indemnification continue to provide omnibus coverage of all persons legally liable for nuclear damage, or should it be restricted to DOE contractors or to DOE contractors, subcontractors, and suppliers?

The DOE Price-Anderson indemnification has been and should continue to provide omnibus coverage, as currently provided for in the 42 U.S.C. § 2014(t) definition of "person indemnified."[1] The uncertainty introduced by any restriction on omnibus coverage would likely make participation in U.S. Government work prohibitive for many contractors, subcontractors, and suppliers that would no longer be covered by the PAA. In this highly complex field, the U.S. Government and public benefits from the participation of a diverse array of contractors, bringing the best people to bear on these challenges. Elimination of the omnibus coverage provided by the PAA indemnification would also make it more difficult and costlier for claimants to recover for damages caused by a nuclear incident, insofar as claimants would likely need to file against the government and all contractors, subcontractors, and suppliers that worked at or on the facility from which the claim originated. This would result in considerable costs to all claimants, as well as contractors, and delays in making any payments, as each defendant would be litigating the claim. (*See* response to Question 8 below).

[1] *See also* 42 U.S.C. § 2014(s) definition of "person."

Attachment

4. If the DOE indemnification were not available for all or specified DOE activities, are there acceptable alternatives? Possible alternatives might include Public Law 85–804, section 162 of the AEA, general contract indemnity, no indemnity, or private insurance. To the extent possible in discussing alternatives, compare each alternative to the DOE Price-Anderson indemnification, including operation, cost, coverage, risk, and protection of potential claimants.

The DOE indemnification should remain in place. Switching to other forms of indemnification would only serve to create uncertainty with respect to both private protection and public compensation, without any benefit to the government. Switching to a privately-provided form of indemnification, if available, would substantially increase the cost to the government because government contractors would have to pay for insurance upfront (to the extent it is even available), in contrast to the PAA system, where the government only incurs costs where there is a compensable nuclear incident—something that has proved to be exceedingly rare.

As DOE recognized in its 1998 report to Congress, it is unlikely that private insurance would be available to replace the coverage currently provided by the PAA indemnification.[2] As described in the 1998 Report, there is no guarantee that private insurance coverage would actually be written. Although not ruling out the possibility of being able to offer coverage, American Nuclear Insurers (ANI) pointed out that any "agreement to provide insurance would depend on a careful engineering evaluation of the facility, the activities performed, and the DOE's agreement to implement recommendations that may be offered."[3] It was also clear that concerns regarding assuming liability for previous exposures may preclude insurability for existing DOE facilities.[4] Finally, DOE concluded that "even if private insurance were available, the amount would be limited and the cost would be astronomically high."[5] We are unaware of any developments since 1998 that would call into question DOE's previous conclusions on the availability or feasibility of using private insurance to replace the PAA indemnification.[6]

Contract indemnity or indemnity under Section 162 of the Atomic Energy Act would fail to provide one of the key protections of PAA, that indemnification is not subject to the availability of appropriations. It likewise would not guarantee the exclusive remedy that the PAA provides. Without those protections, contractors would have enormous uncertainty about what protection they would actually receive in the event of a nuclear incident.[7]

Coverage under P. L. 85-804 is likewise not nearly as complete or efficient as the PAA. Coverage under P.L. 85-804 is not mandatory, but rather must be requested for specific work on a case-by-case basis and approved by the Secretary of Energy. The procedural protections of Price Anderson, relating to consolidation of cases in a single court, waiver of defenses, and prompt payment of claims do not apply to the indemnification scheme under P.L. 85-804. In addition, it does not protect a contractor from losses to its property or from claims by the government resulting from willful misconduct or lack of good faith

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2 "Report to Congress on the Price-Anderson Act," U.S. Department of Energy, at p. 14 (available at https://www.energy.gov/sites/default/files/gcprod/documents/paa-rep.pdf.) ("1998 Report").

3 *Id.* (quoting ANI).

4 *Id.*

5 *Id.*

6 Beyond the substantive barriers associated with obtaining private insurance, the procedural complexity of obtaining private insurance for advanced or first-of-a-kind DOE efforts could make it difficult to obtain private insurance within the time required to respond to DOE's needs.

7 *See also,* "Office of General Counsel: Preparation of Report to Congress on Price-Anderson Act," Department of Energy, 62 Fed. Reg. 68, 272, 68,273 (Dec. 31, 1997) (explaining that indemnification provided under Pub L. No. 85-804 and Section 162 of the AEA are not equivalent to the indemnification provided by the PAA).

of directors, officers or principal officials. FAR 52.250-1(d). Finally, there is no mandatory flow down of this indemnification to subcontractors. Flow down must be requested. FAR 50.403-2(d). All of these differences make it far less attractive to the contractor community that is essential to DOE executing its varied nuclear missions. Reliance on P.L. 85-804, rather than the PAA, could greatly reduce contractor interest in competing for DOE work, to the detriment of DOE and the communities where DOE carries out its nuclear missions, particularly its environmental remediation work.

The current Price-Anderson indemnification provisions are the result of extensive Congressional discussions during the 1988 and 2005 renewal processes. These discussions reflect the conclusion that the other indemnification methods referred to in the question were not as effective as the omnibus protection provided by Price-Anderson indemnification for the vast majority of DOE nuclear projects.

A core tenet of the PAA is simplifying the process for public compensation in the event of a nuclear incident. Price-Anderson indemnification was initiated to provide prompt compensation to members of the public who sustain defined injury or damage caused by a nuclear incident. In the event of an Extraordinary Nuclear Occurrence (ENO), the Act provides no-fault coverage and calls for the equitable and efficient distribution of funds. None of the other options were designed with this level of public protection and prompt compensation in mind.

5. To what extent, if any, would the elimination of the DOE Price-Anderson indemnification affect the ability of DOE to perform its various missions? Explain your reasons for believing that performance of all or specific activities would or would not be affected.

If DOE Price-Anderson indemnification is eliminated it would adversely affect the willingness and ability of contractors to support DOE in performing its missions. As noted above, the uncertainty introduced by elimination of PAA protection, including significant litigation costs and an unclear scope of liability, would make it cost-prohibitive for many current contractors to continue to support DOE. This would be especially true of small businesses and non-profit entities that perform mission-critical tasks and add important diversity to the pool of nuclear vendors. Elimination of DOE PAA protection would also diminish public trust in the availability of public liability compensation in the event of a nuclear incident. Such an erosion of trust would also challenge DOE's ability to perform new missions, as the public would be more likely to oppose DOE nuclear projects in the future.

6. To what extent, if any, would the elimination of the DOE Price-Anderson indemnification affect the willingness of existing or potential contractors to perform activities for DOE? Explain your reasons for believing that willingness to undertake all or specific activities would or would not be affected.

DOE is often faced with a lack of robust competition from the contractor community for its most difficult work because of the challenges inherent in the work. As discussed above, given the absence of any clear and adequate alternative, elimination of DOE PAA indemnification would have significant repercussions. The resulting uncertainty in nuclear liability exposure and increased potential defense litigation costs would make the DOE contractor community less willing to take on DOE's national security and other nuclear missions and its most challenging environmental remediation missions. The elimination or reduction of PAA protection will likewise stifle public-private partnerships in the nuclear area, which can otherwise improve costs and results for the U.S. government partner.

7. To what extent, if any, would the elimination of the DOE Price-Anderson indemnification affect the ability of DOE contractors to obtain goods and services from subcontractors and suppliers? Explain your reasons for believing that the availability of goods and services for all or specific DOE activities would or would not be affected.

The ability of contractors to obtain goods and services from suppliers and subcontractors would be severely affected if Price-Anderson indemnification were eliminated. For the same reasons that contractors may not decide to pursue opportunities with DOE discussed above, suppliers and subcontractors to those contractors would face the same liability exposure and litigation risk—more often for much smaller dollar value contracts (only a portion of the prime contract). Subcontractors are even more likely to be concerned if Price-Anderson indemnification were not extended because many of these entities are smaller businesses that could not financially accept the added risks. As noted above, under P.L. 85-804, which is arguably the best (although still inadequate) alternative if the PAA were not available, the flow down of indemnification to subcontractors is not automatic, and that would likewise create a disincentive for subcontracting with DOE. As a result, the broader nuclear supply chain is likely to be significantly affected if Price-Anderson indemnification were removed for those entities.

8. To what extent, if any, would the elimination of the DOE Price-Anderson indemnification affect the ability of claimants to receive compensation for nuclear damage resulting from a DOE activity? Explain your reasons for believing the ability of claimants to be compensated for nuclear damage resulting from all or specific DOE activities would or would not be affected.

The principles underlying the current PAA regime include "economic channeling" to one source of funds—*i.e.*, the DOE indemnification (without regard to the availability of appropriated funds); and a prompt means for payment of claims. If DOE Price-Anderson indemnification was eliminated, claimants will likely be required to file against the government and all contractors, subcontractors, and suppliers that worked at or on the facility from which the claim originated. This would result in considerable costs to all claimants, as well as contractors, and delays in making any payments as each defendant would be litigating claim liability. Also, the amount of money available to pay claims would be limited to commercially available liability insurance (likely to be very limited, if available at all) and the assets available of the companies willing to provide the services. Finally, it is possible that claimants would not receive compensation until trial and final judgement. Therefore, it could take many years to resolve the claims before any payments are made. All of this would have a very negative impact on claimants with legitimate claims. The least economically secure claimants are likely to be most severely affected, as they would be least able to bear the cost of litigation.

9. What is the existing and the potential availability of private insurance to cover liability for nuclear damage resulting from DOE activities? What would be the cost and the coverage of such insurance? To what extent, if any, would the availability, cost, and coverage be dependent on the type of activity involved? To what extent, if any, would the availability, cost, and coverage be dependent on whether the activity was a new activity or an existing activity? If the DOE Price-Anderson indemnification were not available, how would that affect the availability of insurance? Should DOE require contractors to obtain private insurance if the DOE Price-Anderson indemnification were not available?

As described in our response to Question 4, it is highly unlikely that meaningful levels of private insurance would be available to cover liability for nuclear damage resulting from DOE activities (currently $13.7 billion for nuclear incidents that occur in the United States).

While there is private insurance available to entities licensed by the NRC to operate commercial power reactors, including $450 million in primary coverage for commercial nuclear power plants, this level is

unlikely to be available for DOE activities. Commercial nuclear reactors are well-understood systems, with well-evaluated risks, and which have operated to exacting standards set forth by the U.S. Nuclear Regulatory Commission for decades.

In contrast, many of DOE's missions are at the frontiers of science, and often are highly complex and unique. As reflected in DOE's 1998 Report, ANI explained that any offer to provide private insurance would hinge upon "a careful engineering evaluation of the facility, the activities performed, and the DOE's agreement to implement recommendations that may be offered."[8] Given the variability in work performed pursuant to DOE contracts, and consistent with ANI's comments supporting the 1998 Report, we understand that the availability and cost of private insurance would be based upon a case-by-case evaluation of both the facility and activities involved in each project. In addition to the distinct nature of the activities performed under DOE contracts, there is also no pool of similar DOE vendors performing similar activities that could band together to utilize tools such as deferred premiums, as is the case with licensed operators of the commercial power reactor fleet. In sum, we are unaware of any changes in the private insurance industry that would prompt a change in the conclusion reached by DOE in its 1998 Report that private insurance is "most likely not available for many DOE activities" and, if it were, the cost of such insurance would be "astronomically high."[9] This would be especially true for coverage of activities undertaken at existing DOE facilities, due to insurer concerns regarding assuming liability for preexisting exposures. Given the discussion above, NEI expects that commercial insurance for nuclear liability resulting from DOE projects would be largely unavailable if Price-Anderson indemnification were eliminated.[10]

10. Should the amount of the DOE Price-Anderson indemnification for all or specified DOE activities inside the United States (currently approximately $13.7 billion, adjusted for inflation), and outside the United States ($500 million) remain the same or be increased or decreased?

The current amount of compensation for domestic facilities available under Price-Anderson, $13.7 billion, is appropriate. Also, as part of Price-Anderson, Congress has reserved the right to take whatever actions are necessary and appropriate to protect the public in the event of a nuclear incident where the statutory limitation on liability is exceeded.

With respect to nuclear incidents occurring outside of the United States, NEI believes that the $500 million indemnity amount should be increased. Specifically, an upward adjustment in the $500 million limit is appropriate in light of the development of advanced reactor technology that may be deployed under DOE contracts in the future. The amount of coverage provided under international nuclear liability conventions (*e.g.*, the 2004 Protocol to Amend the Paris Convention) may serve as useful benchmarks for DOE in considering upward adjustments to the indemnification limit. As stressed in our responses to previous questions, renewal of the PAA is the first priority of NEI and its members. Thus, if necessary to avoid delaying renewal, adjustment to the $500 million limit should be considered separately from legislative efforts to extend or renew the Act.

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[8] 1998 Report, at p. 14.

[9] *Id*.

[10] As explained above in footnote 6, even if private insurance were available, the procedural complexity of obtaining private insurance for advanced or first-of-a-kind DOE efforts could make it difficult to obtain within the time required to be responsive to DOE's needs.

11. Should the limit on aggregate public liability be eliminated? If so, how should the resulting unlimited liability be funded? Does the rationale for the limit on aggregate public liability differ depending on whether the nuclear incident results from a DOE activity or from an activity of an NRC licensee?

The limit on aggregate public liability should not be eliminated, irrespective of whether the incident results from an NRC-licensed activity or a DOE activity. As stated previously, Congress has explicitly reserved the right and responsibility to take action, as necessary and appropriate, in the event the limit is exceeded. Given this Congressional authority and the fact that nearly 65 years of experience with Price-Anderson indemnification has never led to incidents approaching the limit on liability, there is no apparent need to change the existing limit on public liability in Price-Anderson. As discussed in the response to the prior question, the limit for DOE activities occurring outside the United States should be increased.

12. Should the DOE Price-Anderson indemnification continue to cover DOE contractors and other persons when a nuclear incident results from their gross negligence or willful misconduct? If not, what would be the effects, if any, on: (1) The operation of the Price-Anderson system with respect to the nuclear incident, (2) other persons indemnified, (3) potential claimants, and (4) the cost of the nuclear incident to DOE? To what extent is it possible to minimize any detrimental effects on persons other than the person whose gross negligence or willful misconduct resulted in a nuclear incident? For example, what would be the effect if the United States government were given the right to seek reimbursement for the amount of the indemnification paid from a DOE contractor or other person whose gross negligence or willful misconduct causes a nuclear incident?

DOE indemnification should apply in all circumstances currently covered. During the 1988 renewal, extensive discussion and assessment took place on the necessity for Price-Anderson indemnification to cover incidents that might result from gross negligence or willful misconduct. The PAA provides protection to members of the public who may be injured by a nuclear incident. That protection cannot be assured if there is an exception for gross negligence or willful misconduct by a contractor. The decision of DOE, which supported such coverage, and of Congress, which enacted the law, are still valid today. From the perspective of the public interest, the omnibus nature of Price-Anderson indemnification is and should be available under all circumstances.

Although DOE nuclear facilities historically have been exempt from the general industrial and construction workplace safety regulations administered by the Occupational Safety and Health Administration (OSHA), in the 2003 Defense Authorization Act, Congress directed DOE to promulgate its own industrial safety regulations and to subject violators to either civil penalties or contract penalties in the form of a fee reduction. 42 U.S.C. § 2282c. DOE now has a well-developed penalty system for contractor safety violations, including nuclear safety violations. This greatly reduces the likelihood of contractor gross negligence or willful misconduct. Thus, the current system properly balances protection of the public and penalties for contractor performance failures.

13. Should the definition of nuclear incident be expanded to include occurrences that result from DOE activity outside the United States where such activity does not involve nuclear material owned by, and used by or under contract with, the United States? For example, should the DOE Price-Anderson indemnification be available for activities of DOE contractors that are undertaken outside the United States for purposes such as non-proliferation, nuclear risk reduction or improvement of nuclear safety? If so, should the DOE Price-Anderson indemnification for these additional activities be mandatory or discretionary?

Attachment

The definition of "nuclear incident" should include occurrences that result from DOE activity outside the United States, even where such activity does not involve nuclear material owned by, and used by or under contract with, the United States. The dual purposes of the PAA are to: (1) encourage development of the nuclear industry by providing private industry financial protection for legal liability resulting from a nuclear incident, and (2) protect the public by assuring that funds are available to compensate claimants for damages and injuries in the event of a nuclear incident.[11] As indicated in the question, there are important activities that are undertaken by DOE and its contractors in areas such as non-proliferation, nuclear risk reduction, and improvement of nuclear safety that may not be covered by the current definition because they may involve nuclear materials that are not owned by the U.S. These activities are vital to the continued development of the nuclear industry, and the protections provided by the Act should be extended to these activities in order to fulfill the dual purposes of the Act.

Accordingly, NEI encourages DOE to propose appropriate revisions to the PAA to clarify that DOE's PAA indemnification extends to all such activities, regardless of whether the materials involved are owned by the United States. While we support such a change to the PAA, any amendments should be narrowly tailored to apply only to DOE's PAA indemnification program and should not affect or modify the definition of "nuclear incident" as that term is used to implement the NRC's PAA program. It is in the public interest for Price-Anderson indemnification to provide omnibus coverage to all entities working on DOE projects either within or outside of the United States, regardless of whether the nuclear material is "owned by, and used by or under contract with, the United States."

In addition, the DOE is actively pursuing the use of nuclear power in space. DOE should clarify that the current PAA indemnification for activity outside the United States includes activities that involve nuclear material owned by, and used by or under contract with, the United States that take place in space. If the DOE does not agree that work performed in space would be covered by the current indemnification, we encourage DOE to recommend that Congress modify the PAA to cover these activities.

As stressed in our responses to previous questions, renewal of the PAA is the first priority of NEI and its members. Thus, if necessary to avoid delaying renewal, the modifications suggested in this answer should be considered separately from legislative efforts to extend or renew the Act.

14. Should the PAA be modified to extend its authorization beyond 2025, or to make permanent the authorization? If so, what would be the effect, if any, on the DOE Price-Anderson indemnification? What would be the effect, if any, on the United States' adherence to the CSC?

The PAA's authorization should be made permanent to provide regulatory certainty for industry and the public and to encourage long-term investment in, and development of, advanced nuclear technologies. The PAA regime aligns with the principles of the global framework for managing nuclear liability, including the CSC, and there is no expectation that this framework will change. The uncertainty introduced by a 20-year renewal cycle offers no clear benefits to either the public or industry, but it does add significant risks to the nuclear industry and small businesses (including non-profit businesses) that participate in it. In addition, a much longer PAA renewal is necessary to provide for business certainty and to support the much longer expected life of operating nuclear plants. Already, with NRC license extensions, many plants now have license terms that have been extended from 40 to 60 years, and soon, after a second extension, 80 years. At the same time, both private parties and the U.S. Government, through DOE awards, are making substantial investment in new nuclear technologies in order to help decarbonize and meet net zero emissions targets. Thus, NEI encourages the DOE to pursue permanent PAA reauthorization in order to provide business certainty to support that new public and private

[11] 1998 Report, at pp. 4-5.

investment. Otherwise, the U.S. government's and private parties' substantial initial investment in new nuclear technology may not achieve these broader policy goals. If a permanent authorization is not possible, the authorization should be extended to 50 years to provide additional certainty for such substantial investment.

15. Should the PAA be modified as necessary to enable the United States to become a party to other international nuclear liability law treaties in addition to the CSC (that is, replace state tort law with the international nuclear liability principles, including channeling all legal liability exclusively to the operator on the basis of strict liability)? If so, what would be the effect, if any, on the system of financial protection, indemnification and compensation established by the PAA?

There is no need to modify the PAA to directly align with the Paris or Vienna Conventions on nuclear liability. The PAA is appropriately tailored to the nuances of U.S. law and functions well within the U.S. legal system. Further, the PAA and the Paris and Vienna Conventions contain similar general principles, which are memorialized in the CSC. The CSC sets forth a workable model for international standardization of nuclear liability protection. Alignment with the CSC—which the PAA provides—is sufficient to allow U.S. nuclear suppliers and vendors to participate in the global nuclear market. In addition, the PAA has been successfully implemented for nearly 65 years.

16. Should the PAA be modified to harmonize the operation of the PAA and the CSC? If so, describe the modification and explain the rationale.

There is no need to modify the PAA to achieve further harmonization with the CSC. The PAA already aligns with the CSC—more specifically, the Annex to the CSC, which sets forth requirements for national nuclear liability regimes.

17. Should section 934 of EISA be modified, especially with respect to the mechanisms for funding the United States' contribution to the CSC international fund? If so, describe the modification and explain the rationale.

NEI has actively participated in the DOE's efforts to develop a regulatory framework to implement section 934 of EISA, which, in turn, implements the CSC in the United States.[12] Specifically, section 934 describes how the United States will meet its obligation to contribute to the "international supplementary fund" in the event of a nuclear incident requiring a call for such funds. Based upon our previous participation in DOE's efforts to implement Section 934, we urge the Department to recommend modifications to EISA that would eliminate the retrospective risk pooling program, which requires U.S. suppliers to reimburse the U.S. Government for any payments made to the "international supplementary fund" under the CSC. Nearly fourteen years have passed since the enactment of EISA, and development of a regulatory framework to implement Section 934 has proven impracticable. We believe that this issue is best addressed in DOE's next Congressional report on implementation of Section 934, which we understand is due in 2023.[13] Although this issue is important to NEI's supplier members, it should not delay renewal or extension of the PAA and can be pursued in parallel with PAA renewal if necessary.

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[12] *See, e.g.*, "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," April 17, 2015; "Nuclear Energy Institute Comments on DOE Notice of Proposed Agency Information Collection for the Convention on Supplementary Compensation for Nuclear Damage Contingency Cost Allocation Docket Number DOE-HQ-2014-0021; Regulatory Information Number 1990-AA39," Nov. 7, 2016.

[13] Subsection 934(e)(2)(C)(iv) of the EISA requires DOE to submit a report to Congress every five years addressing the need to amend or continue Section 934. The last report was provided by DOE in February 2018. *See* "Section 934

18. Should the procedures in the PAA for administrative and judicial proceedings be modified? If so, describe the modification and explain the rationale.

The procedures for PAA administration of public liability claims do not need to be modified. They are well-designed to assure disposition of PAA claims in an efficient manner that provides protection and prompt compensation to the public.

19. Should there be any modification in the types of claims covered by the PAA system?

There is no reason to modify the types of claims covered by the PAA. PAA should continue to apply to all public liability claims arising from a nuclear incident, to the exclusion of inconsistent state law claims.

20. What modifications in the PAA or its implementation, if any, could facilitate the prompt payment and settlement of claims?

There is no reason for such modification of the PAA, as the current system works well to facilitate prompt and fair compensation of injured parties. As to implementation, the DOE should strive to ensure that contracting officers consistently include PAA indemnification provisions in contracts with nuclear vendors to avoid any doubt regarding whether the PAA indemnification applies in specific instances.

21. Should the PAA be modified to address any unique circumstances or issues raised by the development and deployment of advanced nuclear reactors, including small modular reactors and microreactors? If so, describe the modification and explain the rationale.

See responses to questions 10 (*i.e.*, increasing the $500 million indemnity limit for nuclear incidents occurring outside of the U.S.) and 13 (*i.e.*, expanding coverage to include incidents occurring outside of the U.S. that do not involve materials owned by, and used by or under contract with, the United States; and use of nuclear technology in space).

22. Should the PAA be modified to address any unique circumstances or issues raised by research and development activities related to advanced nuclear reactors, including small modular reactors and microreactors at DOE sites or by DOE contractors? If so, describe the modification and explain the rationale.

See responses to questions 10 (*i.e.*, increasing the $500 million indemnity limit for nuclear incidents occurring outside of the U.S.) and 13 (*i.e.*, expanding coverage to include incidents occurring outside of the U.S. that do not involve materials owned by, and used by or under contract with, the United States; and use of nuclear technology in space).

23. Should the PAA be modified to address any issues raised by current or anticipated changes in the nuclear industry such as increased use of reactors with capacity of less than 100 megawatts, decreased use of reactors with capacity of greater than 100 megawatts, and deployment of fusion reactors? If so, describe the modification and explain the rationale.

See responses to questions 10 (*i.e.*, increasing the $500 million indemnity limit for nuclear incidents occurring outside of the U.S.) and 13 (*i.e.*, expanding coverage to include incidents occurring outside of the U.S. that do not involve materials owned by, and used by or under contract with, the United States;

Report," U.S. Department of Energy, Feb. 2018 (available at https://www.energy.gov/sites/prod/files/2018/03/f49/Section%20934%20Report%20to%20Congress%20February%202018.pdf).

and use of nuclear technology in space). As to fusion reactors, NEI understands that fusion is in its early stages and its inclusion in the nuclear liability framework may need to be evaluated in the future.

24. Should the PAA be modified to address any environmental justice or equity and inclusion issues that may be associated with the implementation of the PAA, or the administration of claims covered by the PAA? If so, describe the modification and explain the rationale.

There is no reason for such modification. The PAA promotes environmental justice. It ensures a robust and efficient legal framework is in place to compensate claimants promptly, as opposed to costly litigation in state or federal court. Having to litigate to recover in the event of a nuclear incident harms those the most that can least afford to litigate or are aware of their rights. Thus, elimination of the PAA in turn could create a significant environmental justice challenge.