

Comments of CIECP to DOE re Inquiry on Preparation of Report to Congress on the Price-Anderson Act

Submitted via: paareportnoi@hq.doe.gov.

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Dear Department of Energy:

The Council on Intelligent Energy & Conservation Policy (CIECP) urges the Department of Energy (DOE) to advocate that the DOE-related provisions of the Price-Anderson Act (Price-Anderson or PAA) be **modified to eliminate the industry liability cap** in DOE's report to Congress.

As a preliminary matter, we take issue with the disingenuous and conclusory manner in which DOE introduces the inquiry, stating in the Summary paragraph: "The PAA establishes a system of financial protection that encourages the safe and secure operation of nuclear power and other nuclear activities and assures equitable compensation of victims in the event of a nuclear incident."

While we support a mandate for insurance, the liability cap does absolutely nothing to advance public protection. Financial recompense can and should be required without granting the industry the unacceptable financial windfall provided by Price-Anderson.

Indeed, the cap represents not just a moral hazard in the classic sense, but a moral hazard of most acute form.

Price-Anderson is Outdated and Grossly Insufficient

Price-Anderson was enacted in 1957 as a temporary measure to entice the private sector to enter the nuclear industry, an industry then in its infancy. World War II was but a decade in the past. The General Electric Company's Vallecitos boiling water reactor began operation as the first privately owned nuclear power plant to produce electricity to a public grid. The double helix structure of DNA had been discovered by James Watson and Francis Crick just a few years earlier. Vast domains of medicine like epigenetics had yet to even emerge. Three Mile Island, Chernobyl, Fukushima-Daiichi were decades in the future.

Price-Anderson, as it pertains to the DOE, provides DOE indemnification – which really means that the US taxpayer provides insurance in the event of a serious nuclear accident. The outdated law relieves for-profit companies involved in nuclear activities of accountability. Profit is capitalized. Risk is socialized.

The nuclear power industry began because the government assumed the risk of accidents.

That state of affairs may have been justifiable in 1957. It long ago ceased being defensible.

The nuclear industry has been publically subsidized throughout every step and phase of its existence, from its publicly funded inception in the Manhattan Project onwards for decades, nuclear has been lavished with R&D money. From mining to facility operation to nuclear waste transportation to nuclear waste management and storage, the American public is footing the bill.

Literally, under the scheme devised for this industry and for no other, the American public will pay the cost of the containment of the nation's lethal radioactive waste for millennia.

Price-Anderson may no longer properly be added to this staggering tab. If private companies and insurers remain unwilling to accept the full level of risk inherent in activities engaged in by this now well-established, long massively subsidized industry, why on Earth should the American people?

Dexter J. Peach, then Director of Energy and Minerals Division at the U.S. General Accounting Office, rather ironically synopsized the issue in written testimony to Congress in 1981:

The Price-Anderson Act not only covers DOE nuclear facilities but is probably unique in its application of what is commonly referred to as 'umbrella coverage.' In addition to covering prime contractors responsible for operating the facilities within the DOE nuclear energy complex, the act also covers subcontractors, vendors, suppliers, architect-engineers and transporters who perform work in connection with a particular prime contractor's nuclear activity. Moreover, the act even covers past work that could cause an accident at some future date. Thus, the contractor who performed past work would be covered even though there is no existing contract. ... This coverage applies equally to both nuclear facilities licensed by the Nuclear Regulatory Commission (NRC) as well as those operated for the DOE by private contractors. (Peach, pp 1-2)

This broad liability protection given in 1957, Peach went on to aver, was still needed in the 1980s because neither the insurance industry nor the nuclear industry was willing to assume the risk. In Peach's words:

For example, catastrophic nuclear accidents causing severe public consequences could still occur; sufficient private insurance to cover such consequences is still unavailable; and ... it appears that private industry is still unwilling to assume the risks of such accidents without the kind of financial protection the act now provides. (Peach, p 3)

Decades more have passed. Yet, still, neither the private insurance industry nor the nuclear industrial enterprise (comprised in no small part by multibillion dollar DOE contractors and specialty vendors), appear inclined to assume full liability.

Obviously the one decade problem Price-Anderson was initially envisioned to resolve was never resolved. After more than six decades, it is surely time to end what has become a sorry excuse for corporate welfare.

History also demonstrates that the amount of recompense envisioned by Price-Anderson would be grossly inadequate in the advent of major disaster. As currently enacted, the DOE provides indemnification for an incident up to the statutory amount of \$13.7 – an amount which would be adjusted for inflation.

Mikhail Gorbachev, the former president of the Soviet Union, speaking on Chernobyl in 2006, noted that even top nuclear experts had not apprehend the level of risk and reflected on how a nuclear accident leaves "a terrible legacy for future generations." (BBC) In 2013, Naoto Kan, the former Prime Minister of Japan, related how, when reviewing the worst case scenario with nuclear experts during the height of the crisis, he feared he might have to order evacuation of the Tokyo metropolitan area, 150 miles from the stricken nuclear site. Mr. Kan said, "Fifty million

people, almost half the entire nation of Japan, abandon homes, leave workplace, schools, hospitals all evacuated... I realized Japan would not be able to function as a nation for a very long period of time ... [they couldn't] minimize spread before situation so grave." (Kan)
In 2019, the Japan Center for Economic Research, a Tokyo-based Japan think tank, estimated the cost of addressing the 2011 Fukushima-Daiichi nuclear disaster as being between \$315 billion – \$728 billion (2019US) (¥35 trillion and ¥81 trillion). (Komori)

In truth, no one can know the full cost of any major nuclear accident. The consequences of reactor meltdowns may or may not be comparable to the types of disaster the actions of DOE contractors might cause. But it is worth noting that the energy giant PG&E settled claims related to several Northern California wildfires for \$13.5 billion. (Trotta) Notably, a DOE contractor could be implicated in negligently causing a fire at a DOE nuclear site.

Regardless of how many billions or trillions in damages a major accident could consequence, the bottom line is that the public should no longer be the reinsurer for the for-profit nuclear industry.

Price-Anderson Presents a Major Moral Hazard

As the economist Ingmar Schumacher observed, socialization of costs has serious downsides. Under limited liability and risk-sharing, nuclear actors are inclined to under-invest in safety. "So to minimize moral hazard and free-riding, operators should have unlimited liability." (Schumacher) Socialization of cost also fails to result in a thorough quantification of the true costs of nuclear. "However, without this assessment we are unaware of the 'below-the-counter' subsidy that governments provide to the nuclear industry in case of disasters, and we are simply ignorant of the true costs of nuclear energy. This makes a thorough comparison of the costs and benefits of nuclear energy extremely difficult if not impossible." (Schumacher)

Former Nuclear Regulatory Commission (NRC) Commissioner Victor Gilinsky, writing in the Bulletin of Atomic Scientists, made a similar observation. While speaking of the law as it applies under the NRC, the point is apposite to the DOE scheme:

If you accept the NRC accident estimates, the risk the vendors would run without an exemption from liability would be very small, and likely a lot smaller than other corporate risks they routinely run. What is clear is that the nuclear firms—the largest of which possess an understanding of nuclear safety far beyond that of the public—do not believe the NRC safety conclusions that the risk of a catastrophic nuclear accident is infinitesimal. Nor do they accept that probable risk—probability of an accident times the consequences, were one to occur—as the right measure of risk to their companies. They don't want to risk their companies, period. ... If they don't believe the NRC numbers, why should the rest of us accept them? Why shouldn't we have the same protection from physical harm that the nuclear industry has from financial liability?
(Gilinsky)

Price-Anderson Distorts the Energy Market – and Crowds Out Renewables and Efficiency

As set forth in a letter to Secretary Granholm by Mark Cooper, PhD, Director of Research at the Consumer Federation of America and Senior Fellow for Economic Analysis at the Institute for Energy and the Environment at Vermont Law School and Jack Gillis, Executive Director of the Consumer Federation of America, earlier this year:

The potential transformation of the energy sector into one based on low cost, clean energy is one of the most important steps to ensuring economic growth over the next quarter century. This transformation is the result of a technological revolution in energy consumption and production, as well as innovations in digital communications, data processing, and advanced control technologies. These changes have created an opportunity for the development of an entirely new 21st century energy sector. ... The push by investor-owned utilities to subsidize their most uneconomic assets – large central station nuclear facilities – is a clear example of this problem. New nuclear plants are extremely expensive to build, and aging plants need subsidies to operate. These uneconomic reactors, unable to compete with lower cost alternatives, are also the largest and least flexible of the current generation units. They are heavy users of water and raise numerous public health and environmental issues. Promises that a new generation of ‘small modular’ nuclear technologies will do better are doubtful at best. They will be much more expensive than the alternatives already available, and they will take decades to deploy. They also raise serious concerns about security and pollution. We urge you to apply a strict economic standard to nuclear power. If it cannot compete on cost, it should not be part of the 21st century energy sector.”

(Cooper)

Examples of opportunities for the DOE to transform into a genuine force for the transformation of our energy sector to one based on abundant fuel-free generation, instead of one based on extractive heavy industry and toxin-releasing fuels, emissions, and waste abound. (Jacobson; Makhijani; Teplin; Weissman) Greater focus on efficiency as the least-cost, least-carbon-emitting, and most broadly beneficial means of combating climate change and improving quality of life is particularly needed at DOE. (Lovins) As the DOE noted in its Partnering for the Future report this year, investment in building improvements can rapidly save billions in energy costs, gallons of water savings and millions of metric tons of carbon emissions. (US DOE)

The DOE we presume is well aware that (1) Uranium mining and enrichment entails substantial use of energy and greenhouse gas emissions, releases radon and toxic metals into the air, soil and water. (2) Nuclear power generation – fission itself – creates carbon-14, a radioactive greenhouse gas with a half-life of some 5,700 years. (3) Nuclear power generation continuously releases harmful radionuclides into the environment. (4) Uranium mining, enrichment and all nuclear power sites become contaminated and often require millions of dollars to remediate, if remediated at all. (5) Radiation is especially dangerous for women, pregnant women, children, girls, infants, and babies in utero – and the nation’s regulatory scheme fails to take the vulnerability of these and other highly-vulnerable individuals into account. (6) Nuclear power creates the most hazardous long-lasting waste product on the planet – a product which remains lethal for longer than human civilization has existed, a product which will cost each generation of Americans which inherit it many billions to maintain.

Corporate welfare which adds to the well-endowed coffers of DOE contractors and would unfairly subsidize new so-called “advanced” reactors and small modular reactors (SMRs), microreactors, and the like, would grossly distort the energy market.

Far better for the nation to support truly clean non-radioactive, non-proliferation creating options – all of which would not impose continued damage upon environmental justice communities. The US Bureau of Land Management has identified 15,000 abandoned uranium mine locations in 14 states, with about 75% on federal and tribal lands. (US BLM) Directing public money to remediation of indigenous communities is an ethical imperative.

The DOE should stop promoting activities which continually produce more nuclear waste and more toxic pollution.

The Biden Administration DOE has promised a better, more representative, transparent, and socially just agency. Abandoning the reckless expansion of uranium mining, milling and enrichment and being honest with the American public about the full impacts of the uranium fuel cycle would be a good way to begin fulfilling those articulated objectives.

Continuing liability caps under Price-Anderson would be in conflict with the recommendation of the White House Environmental Justice Advisory Council to not harm to frontline communities and sunset investment in nuclear energy by 2030. (White House EJ Advisory Council)

Continuing to promote all things nuclear perpetuates environmental injustice by putting First Nation, Latinx and marginalized communities at risk. Encouraging nuclear activity in the American West imperils already strained water resources. (Frank; Hartman; NOAA; US BR; Williams)

It is high time to stop subsidizing the private uranium and nuclear industrial complex which has already benefitted from hundreds of billions worth of public subsidies for some 70 years and caused multi-generational public health consequences, serious damage to ecosystems, and produced a waste stream which will last in perpetuity. The toxic legacy of uranium mining over the last 70 years has left communities and taxpayers with the financial burdens of cleanup. Based on incredibly outdated law, uranium mines pay no federal reclamation fee or federal royalty in exchange for the profits they make from public lands that belong to the American people. Continuing Price-Anderson's liability caps would be irresponsible and only perpetuate injustice and add to the nation's risk while subsidizing polluters at US taxpayer expense.

Respectfully submitted,

Michel Lee
On behalf of
Council on Intelligent Energy & Conservation Policy (CIECP)

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