

Testimony before the United States Senate  
Committee on Environment and Public Works  
Subcommittee on Transportation, Infrastructure and Nuclear Safety

Renewal of the Price Anderson Act

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Peter A. Bradford

Visiting Lecturer in Energy Policy and Environmental Protection Yale University  
Associate, Regulatory Assistance Project  
Former Chair, New York Public Service Commission and Maine Public Utilities  
Commission  
Former Commissioner, U.S. Nuclear Regulatory Commission  
Past President, National Association of Regulatory Utility Commissioners

Thank you very much for the invitation to testify regarding the renewal of the Price-Anderson Act in the context of competitive electric power markets. Aspects of the law have provided for a system of self-insurance by the nuclear industry for some 45 years. While these provisions can and should be strengthened to assure funding in the event of a serious nuclear accident, the underlying concept is sensible.

However, the electric industry has changed significantly since Congress last renewed Price-Anderson and since I last testified before this committee on that subject in 1985. These changes undermine the wisdom and the fairness of applying the liability limitation provisions to new nuclear units and perhaps also to units whose licensed life is extended beyond its original term.

One noteworthy change is that virtually no imported oil is now burned to generate electricity in the U.S. Consequently, nuclear energy – though still a hedge against air pollution and volatility in the fossil fuel markets – no longer does anything to reduce U.S. oil import dependence.

Another significant change is the opening of the electric power market to competition among all forms of power generation. A national policy requiring competitive electric power supply was achieved through the enactment of the Energy Policy Act of 1992 and subsequent proceedings of the Federal Energy Regulatory Commission. Pursuant to this national policy, all power plants should now have an equal opportunity to sell into the wholesale electric market based on their costs and other operating characteristics. The basis for this policy was Congress's belief that marketplace competition would produce lower prices and greater customer satisfaction than did the power plant selection process based on utility and governmental forecasts that prevailed when Price-Anderson was enacted and renewed.

In a competitive power generation market, capacity from nuclear plants must compete with capacity from fossil fuels and from renewable resources, none of which enjoy any type of federally mandated liability limitation. Under these circumstances, the liability limitation has two anticompetitive effects. First, new nuclear capacity appears cheaper than it really is relative to other sources, or – for that matter – relative to investment in energy efficiency. This is because its cost of capital does not reflect the risk of having to pay for damages in excess of \$9 billion, when estimates of worst-case accident or sabotage scenarios are much higher than that. Second, any nuclear design that is truly inherently safe or that is at least incapable of doing more than \$9 billion in damage does not enjoy the benefit of its improved safety in competition with those nuclear plants that do benefit from the liability limitation. Indeed, the liability limitation ultimately is less a subsidy of nuclear power than of nuclear catastrophe. As such, it removes market incentives for – for example – remote siting, underground siting and inherently safe designs. Companies offering designs that have such advantages would be well advised to disavow the liability limitation and thereby avoid the public skepticism that it engenders.

The risk of an accident that exceeds \$9 billion in damages is in no way diminished by the Price-Anderson Act. The Act merely requires that – whatever that risk is – it will be

borne either by those who suffer the damage or by the nation's taxpayers. In the wake of September 11, the possibility of a disaster involving nuclear energy and costing many times \$9 billion is clearly not as low as we had thought. Rather than underwrite industry costs in the event of such an accident, it would seem wiser for Congress to adopt a framework that encourages the deployment of energy sources – conceivably including inherently safe nuclear sources – that do not carry with them the potential for inflicting such large damages.

No connection exists between the upper limit on liability and the more desirable features of Price-Anderson. Removal of the limit coupled with a provision extending the retrospective annual premium until all damages had been paid would provide more assurance to the general public than the present law. Indeed, most of the witnesses who testified in favor of Price-Anderson renewal in the House last year made little or no mention of the liability limit for nuclear power plants<sup>1</sup>. Their testimony urged retention of the mutual-insurance scheme and other aspects of the law. If they saw Price-Anderson as essential to future nuclear plants, to nuclear relicensing, to increasing the licensed output of nuclear power plants, they did not say so. Even the two witnesses who endorsed the liability limit offered no proof that it is still needed<sup>2</sup>. The most vehement claim that the liability limit is essential to the future of nuclear power was made by a witness opposing renewal<sup>3</sup>.

The fact is that other industries – marine oil transport comes to mind – are required to provide a mutual insurance framework independent of any liability limit that may exist. And the Price-Anderson mutual-insurance requirement need not be modified if the liability limit were removed.

The Price-Anderson limited liability principle was originally adopted as part of a clear Congressional bargain<sup>4</sup> that included detailed requirements for public participation in the nuclear licensing process. Over the years, those protections have been substantially eroded, usually on the basis of arguments that nuclear technology had substantially matured and no longer required so substantial a set of intervenor protections<sup>5</sup>. Furthermore, probabilistic risk assessment has been introduced into many aspects of nuclear regulation, again based on the rationale that the technology and risk assessment methodology have matured to an extent now adequate to provide informed judgment about accident probability<sup>6</sup>.

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<sup>1</sup> For example, Chairman Meserve of the NRC and Mr. Fertel of the Nuclear Energy Institute barely hint that they are testifying in favor of a liability limitation.

<sup>2</sup> Testimony of George Davis on behalf of Westinghouse and of John Quattrocchi on behalf of American Nuclear Insurers.

<sup>3</sup> Testimony of Anna Aurilio on behalf of the U.S. Public Interest Research Group.

<sup>4</sup> Described Controlling the Atom: The Beginnings of Nuclear Regulation 1948-1962 by George Mazuzan and Samuel Walker, (University of California Press, 1984), pp. 198-213

<sup>5</sup> For indication that this process continues, see NRC's proposed "Changes to Adjudicatory Process" (RIN 3150-AG49), 66 FR 19609-19671 (April 16, 2001).

<sup>6</sup> See, for example, the October 11, 2000, letter from the Advisory Committee on Reactor Safeguards to Chairman Richard Meserve, stating, "In over two decades of development following the Reactor Safety Study, PRA reached a level of maturity that allows it to be used to identify unnecessary regulatory burden, as well as additional safety improvements". In his House testimony on Price-Anderson, Chairman Meserve

What then are we to make of continued insistence on liability limits? Can it really be that all of this maturing, all of this increased database only counts when it is being used to reduce aspects of NRC safety oversight? That it counts for nothing in the context of reconsidering the liability limit?

Such a result is indefensible. If the technology is mature enough to cut public hearing and information rights to the vanishing point, if it is mature enough to circumscribe regulatory scrutiny with probabilistic risk assessment, then it is too mature to need a limitation on its liability for catastrophic accidents.

The justification for the limit dates from a time when other alternatives to fossil fuels did not exist. Now, however, at a time when competitive markets are actually providing as many or more new renewable megawatts per year worldwide as new nuclear plant megawatts, this argument is out of date. If nuclear law is to be updated – as industry witnesses urge – to take account of changes in the 1990s, then Congress should take all of those changes into account. Congress should let nuclear power compete within a framework that will reward its safest designs to the fullest. Congress should not continue a framework that encourages facilities with a remote potential for extreme catastrophe to substitute for facilities that can provide or conserve energy in safer ways.

At the very least, those who support renewal of the liability limitation can hardly oppose measures providing support for renewable energy and energy efficiency as part of restructuring legislation. The liability limitation is a specific override of an asserted free market outcome – the unwillingness of private insurers to cover the full potential costs of a nuclear accident. If such a countermarket subsidy is to be offered to one technology, then the least that can responsibly be done is to ascertain its value and offer a comparable subsidy to other technologies that offer the same advantages of domestic supply, reduced fossil fuel dependence and diminished air pollution, especially since these technologies really are in the startup phase that was said to justify the Price Anderson Act when first it became law, 45 years ago.

Thank you again for the invitation to testify.

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noted, “Improved probabilistic risk assessment techniques combined with more than four decades of accumulated experience with operating nuclear power reactors has led the commission to realize that some regulations may not achieve their intended safety purpose and may not be necessary to provide adequate protection of the public health and safety.”