A Subtle Surprise Hidden in Plain Sight: The Price-Anderson Act and Contractor Nuclear Liability Indemnities

DR. KARL J. DUFF

In the beginning, two bombs provided an ending. The explosion of a single, terrible, US bomb over Hiroshima[1] (followed shortly by another, more powerful, explosion over Nagasaki[2]) ended the carnage of World War II. The raw destructive power of these weapons simultaneously began a new era of nuclear threat/counter-threat geopolitics. We called it the Cold War, and fear of an Armageddon created by bombs even more powerful than those used in Japan drove world defense budgets for decades.

The United States, facing the chilling and uncharted waters of the early Cold War years, made a remarkable decision. The government elected to erect an almost unthinkable nuclear deterrent,[3] yet, at virtually the same time, took a considered decision to press for the peaceful use of nuclear power. Thus, by 1957, the Price-Anderson Act (Price Anderson) was passed.[4] Those working today within the arcane and, at times, poorly drafted language of Price Anderson eventually begin to glimpse an overall understanding of the potential severity of nuclear liability to private sector companies, and of the efforts through Price Anderson to mitigate those risks.

As the court in *Corcoran vs. New York Power Authority*[5] pointed out, "private power companies remained reluctant to invest in nuclear facilities because of the potentially astronomical liability costs." As Justice Souter recently observed in the Supreme Court's *El Paso Natural Gas Co. vs. Neztsosie*[6] case, Price Anderson followed the Atomic Energy Act[7] because it soon became apparent that profits

Dr. Karl J. Duff, D.P.A., J.D. is an attorney and risk consultant with a national practice based in the Atlanta, GA area. His practice deals with environmental insurance carrier issues, as well as the risks and liabilities of engineers, consultants, and contractors. He is the author of numerous articles in diverse areas, ranging from privacy rights, to international comparative law, to environmental matters. Nothing in this article should be understood as the opinion of any person or entity other than the author.

from the private exploration of atomic energy were uncertain and the accompanying risk substantial. The same view was articulated years earlier in *Duke Power Co vs. Carolina Environmental Study Group, Inc.*, where we read "(W)hile repeatedly stressing that the risk of a major nuclear accident was extremely remote, spokesman for the private sector informed Congress that they would be forced to withdraw from the field if their liability were not limited."[8]

FUNDING CATASTROPHE LIABILITY IN THE FACE OF UNCERTAINTY

In order to implement the federal government's ultimate policy decision to provide for the licensing of private-sector construction, ownership, and operation of commercial nuclear power reactors for peaceful purposes under a program of federal regulation, Price Anderson limited liability, called for the use of private insurance, and created a catastrophic liability fund.[9] Again, the Congress was clearly influenced in drafting the liability scheme of Price Anderson by a single, undeniable fact: despite the apparent low likelihood of a catastrophe, "the very uniqueness of nuclear power meant that the possibility remained, and the potential liability dwarfed the ability of the industry and private insurance companies to absorb the risk."[10]

Originally, Price Anderson[11] limited the aggregate liability of power plant owners and operators (licensees) for a single "nuclear incident" (*see* note 36) to $500 million (US), plus the amount of private liability insurance available in the private insurance marketplace.[12] In 1957, there was $60 million available insurance capacity.[13] Thus, in 1957 US dollars, the total pool for recovery was, at least in theory, some $560 million in the event of some catastrophic event. Under the statute as originally passed, the nuclear power industry was required to purchase the maximum amount of privately underwritten public liability insurance, excess of which, the federal government (at least in theory) "would indemnify the licensee and other persons indemnified" (a key term explored later) "in an amount not to exceed $500 million" (US).[14] This arrangement is crucial because, in the discussion of contractor liability later in this article, the $500 million amount remains, but the mandate of at least $60 million in financial protection is not necessarily the case.

In 1966, the first amendments to Price Anderson were passed,[15] extending the basic scheme presented in the preceding paragraph, with the following notable changes:

- The liability limitation was extended for another ten years.

- Anyone receiving an indemnity for liability would, as an essential precondition to being indemnified, waive all legal defenses in the event of a substantial nuclear accident. This provision was based on a Congressional concern that state tort law dealing with liability for nuclear incident was generally unsettled, and that some way of insuring a common standard of responsibility for all jurisdictions—*strict liability* "was needed."[16] (Emphasis supplied.) The crucial distinctions between circumstances where defenses are waived (and where they are not) will be discussed.
- All claims arising out of a nuclear incident were transferred to Federal Court.[17]

Later, in 1973, the Atomic Energy Commission (AEC), Price Anderson's contemplated licensing and regulatory authority, was replaced by the Nuclear Regulatory Commission (NRC).[18] In 1975, Congress extended Price Anderson's coverage through 1987. Although the $560 million limitation scheme discussed earlier was retained, a new provision was added "requiring each of the 60 reactor owners to contribute between $2 [million] and $5 [million] (US) toward the cost of compensating victims."[19] Thus, at least in theory, the government's contribution to the liability pool should be lessened, since the liability ceiling remained the same.

Finally, the 1975 amendments to Price Anderson make a dictalike statement

> (In) the event of a nuclear incident involving damages in excess of (the) amount of aggregate liability, the Congress will thoroughly review the particular incidents and will take *whatever action is deemed necessary and appropriate to protect the public from the consequences of a disaster of such magnitude. . .*[20]
> (Emphasis supplied.)

This comment may well be one of the most overlooked portions of Price Anderson in terms of gaining a solid understanding of how it might function. For now, simply hold this provision at the ready as the "Congressional discretion" provision.

Congress added the most recent set of modifications to Price Anderson in 1988.[21] Much the wiser as a result of enormous litigation concerning the infamous Three Mile Island (TMI) incident,[22] Congress sought to remedy the confusing litigation which arose from the fact that the TMI event was not automatically an "extraordinary nuclear incident." The problem was that the statute provided "no

mechanism for consolidating the claims in federal court."[23] Thus, in 1988, Congress amended Price Anderson to grant US District Courts original and removal jurisdiction over all "public liability actions."[24]

Moreover, a serious defect in the functioning of Price Anderson came to light in the TMI cases. Since the NRC[25] took roughly a year to make a determination that TMI was an "extraordinary nuclear incident" under Price Anderson, the myriad cases being contemplated or filed were not readily brought in a single forum. The 1988 Amendments force all "nuclear incidents," not just "extraordinary nuclear incidents," into federal district court.

STATE OR FEDERAL LAW?

The Third Circuit US Court of Appeals stubbornly resisted the notion of a federal cause of action created by Price Anderson and held that the Price-Anderson Act was not intended to confer Price Anderson jurisdiction upon the various US District Courts.[26] Judge Scirica grudgingly accepted for the Third Circuit the 1988 Congressional modifications in 1995.[27] By 1999, the Second Circuit readily used the phrase "exclusive federal cause of action for radiation injury."[28] After the 1988 Amendments, litigants might begin in state court, however, they would promptly find themselves in federal court if they wished to continue their dispute.

This statutorily created federal cause of action, brought exclusively in federal courts, applies substantive state law *unless* the applicable state law is inconsistent with Price Anderson.[29] The Third Circuit has said that state tort law is pre-empted on the issue of what the applicable standard of care is,[30] asserting that TMI II[31] had conclusively resolved whether federal law pre-empted state tort law on this issue.[32] Additional litigation will be needed to determine whether federal rules and law will erode the role played by state law further.

The Third Circuit went on to say that state tort law still played a crucial role in the balance of the tort equation: whether the duty created by the standard of care was breached, whether there was a causal link between the breach of the standard of care and the injury in question, and in proving up the actual loss or damages.[33] In this case, the federal duty of care was established by reference to certain rules and regulations.[34] In elaborating upon these somewhat technical and arcane radiation exposure rules and regulations, the Third Circuit held that the federal standard of care was breached if radiation exceeding certain limits was released, *regardless* of whether the individual plaintiffs were harmed. The plaintiffs' exposures to

radiation remained relevant, but only to prove causation and damages, in the state-law-based tort equation.

DEFINING TERMS

With a basic understanding of the history, playing field, and overall intent of Price Anderson in place, we may now discuss its myriad terms of art. It is through these defined terms that we will understand the specifics of Price Anderson and begin to see a significant contractor risk that may not be perceived at present. The most important terms are as follows:

- *Extraordinary nuclear occurrence.* This is typically viewed as a catastrophic event and requires a specific, conclusive determination by the NRC or the Secretary of the Department of Energy (DOE).[35]
- *Nuclear incident (includes an extraordinary nuclear occurrence).* A nuclear incident may also reach less drastic circumstances,[36] but must cause[37] sickness, disease, death, or loss of or damage to property or loss of use of property, "arising out of or resulting from" the incident.
- *Public liability.* This term is defined as "any legal liability arising out of or resulting from a nuclear incident or precautionary evacuation."[38]
- *Financial protection.* This is the most important definition in Price Anderson from the perspective of this article. The act defines "financial protection" as "the ability to respond in damages for public liability and to meet the costs of investigating and defending claims and settling suits for such damages."[39] As we shall see, this term is just as crucial in terms of what it does not say, as for what it does say.
- *Indemnitor.* This definition must be read in conjunction with the term "financial protection" and the term "person indemnified." The act says that indemnitors can fall into one of three broad classes:[40]
  1. Any insurer with respect to its obligations under a policy of insurance issued by the insurer as proof of financial protection. (This should include self-insurance mechanisms such as legitimate captive insurance companies.)
  2. Any licensee, *contractor* (emphasis added) or other person who is obligated under *any other form* (emphasis added) of financial protection with respect to such obligations.
  3. The NRC or the Secretary of Energy, as appropriate, with respect to any obligation undertaken by it in indemnity agreements entered into pursuant to § 2210 (discussed later).

- *Person indemnified.* This means (at least as to nuclear incidents occurring within the United States):[41]
  1. The person with whom an indemnity agreement is executed, *and* (emphasis added)
  2. Any other person who may be liable for public liability by reason of his activities under any contract with the DOE, or any project to which the provisions of 42 U.S.C. § 2210(d) (discussed later) has been extended, or under any subcontract, purchase order or other agreement, of any tier, under such contract or project.

Adding our understanding of the key terms to our established (albeit superficial) overview of Price Anderson, we may now turn to the critically important indemnity provisions of the Price-Anderson Act.

PRICE-ANDERSON ACT INDEMNITIES

We must keep in mind the fundamental intent of Price Anderson to channel litigation and limit liability. The art and science of risk management is critically important in understanding whether a situation is subject to the aggregate limitation of $500 million; whether Price-Anderson's indemnity of up to $500 million can, therefore, be triggered; and the extent to which a defendant (person indemnified) must pay before the indemnity begins. We begin by reviewing what we know about the Price-Anderson liability scheme in pertinent part:

- Congress ultimately elected to allow private-sector utilities to operate nuclear power plants, as opposed to the original concept of a government monopoly.
- These private sector operators could only construct and operate their plants after compliance with a phenomenally rigorous set of regulatory and statutory requirements.
- Because of the significant risks (held to be severe, but improbable) associated with a nuclear catastrophe, the liability was (correctly) determined by the industry and Congress to be in excess of all available insurance and other financial resources in the private industry.
- Given this circumstance, the fledgling operators of the nuclear power industry demanded (and received) a Congressional limitation of liability in the event of a worst case scenario. This amount was set as $60 million of insurance (total market capacity as the time) *plus* an indemnity from the government for amounts excess of $60 million up to a total maximum aggregate of $560 million including the

private insurance obtained by licensees of the plant facility and the government contribution through indemnity.

- The federal government retains the discretion to change the rules after the fact. One possible governmental action (though, as we shall see, by no means the *only* possible governmental action) could be the allocation of additional funds to the liability pool if the catastrophe was sufficiently grave.[42]

Licensee Indemnities

Price-Anderson indemnities chiefly address the liability of the licensed activity of NRC licensees[43] (power plants, etc.) and Department of Energy contractors.[44] We will first address indemnity provisions applicable to licensees.

Licensed activity is defined[45] as an activity licensed pursuant to the Atomic Energy Act and covered by financial protection provisions.[46] Assuming this test is met, the licensee must then show the existence of a "nuclear incident."[47] Under the 1988 Amendments, there is no longer a need to show an "extraordinary nuclear occurrence."[48] The lesser hurdle of nuclear incidents also removes the need for a time- consuming NRC decision. There must be a claim of some harm suffered as a result of the nuclear incident (*i.e.*, public liability),[49] and there must be an indemnification agreement in place, as required by the statute.[50] Finally, the financial protection (approximately $60 million) must be exhausted before the $500 million federal catastrophic event funds are made available to fund the indemnity.[51]

A critical caveat becomes relevant at this point. Price Anderson requires an "indemnified person"[52] to waive essential defenses such as defenses related to the conduct of the claimant/plaintiff and statutes of limitations.[53] There is no waiver of such defenses regarding claims that are uninsured, not subject to financial protection, or indemnity.[54] A careful reading of the statute makes it clear that these defenses are *not* waived by licensees *unless* there is an "extraordinary nuclear occurrence." A nuclear incident would not, apparently, trigger such statutorily authorized waivers as a precondition in the indemnity agreements. This, it would seem is the rule for licensees: no waiver of defenses for nuclear incidents that are not "extraordinary nuclear occurrences." The reverse holds, as we shall see, for contractors.

This circumstance raises the possibility of certain tactical, strategic, and substantive conflicts. For example, in terms of the operation

of a power facility, a contractor working for a licensee travels under the same risk circumstances as the licensee. Omnibus wording in the property and liability insurance policies (retrospective nuclear pools, private market insurance, etc.) would likely include the contractor under the licensee's coverages. Similarly, the contractor could benefit from the indemnity extended to the licensee. To do so, however, it would appear that the contractor might have to give the same mandated waivers as the licensee in order to derive the benefit of the indemnity and limitation of liability provisions. In a claim situation, it is not inconceivable that a licensee, pointing the liability finger at a contractor, might be faced with a contractor asserting that it may not have waived certain defenses (if they were determinative as defenses).

The government, on the other hand (beyond any control of the licensee or contractor), might elect to declare that a nuclear incident was, in fact, an extraordinary nuclear occurrence. (Nothing in the 1988 Amendments would appear to prevent such a determination; it is simply no longer required as a predicate to triggering Price Anderson.) If that happened, then there would be a mandatory waiver of certain defenses in order to access the indemnity scheme, irrespective of the views of the indemnified party or parties.

Contractor Indemnities

Contractor indemnity provisions track those of licensees in some ways, but differ in some ways as well. To begin with, we will discuss the triggering mechanism for contractor indemnities. The licensee indemnities from the NRC are mandatory ("shall")[55] while the indemnity of contractors by the DOE is permissive ("may").[56]

Thus, the DOE may enter into indemnity agreements with contractors, provided that the contractor's activities for the DOE pursuant to the contractor/DOE agreement:

1. "(I)nvolve the risk of public liability"[57] *and*
2. Are *not* subject to financial protection requirements under § 2210(b) (*i.e.*, licensees) or §2210(c) (*i.e.*, licensees and others where financial protection of less than $560 million is required) or § 2210(k) (*i.e.*, non-profit educational institutions exempt from financial protection).[58] We should note that in these three exception areas, the statute apparently mandates indemnities.

It is also noteworthy that DOE indemnities may be required, by virtue of statutory authority, to agree to some of the defense waivers we

see for licensees in "extraordinary nuclear occurrence" situations, to the extent of waivers of charitable or governmental immunity.[59] Apparently, the DOE/contractor indemnities are *not* allowed to require the other mandatory licensee defense waivers, such as those pertaining to conduct of the claimant or statutes of limitation. This, ultimately, could vastly aid the contractor and the government in the right circumstances, possibly preventing or mitigating payment to a claimant/plaintiff.

While this indemnity structure seems to provide the contractor with more defenses than a licensee, remember that indemnities are mandatory as to licensees, but are not automatic as to contractors. To further complicate the situation, DOE *may* (or may not) require any defense waivers.

The issue of financial protection seems to be fundamentally different for contractors as well. For example, DOE "may" require financial protection "of a type and in such amounts as the Secretary shall determine to be appropriate to cover public liability arising out of or in connection with the contractual activity and shall indemnify persons indemnified against such claims above the amount of financial protection required."[60]

It is here that we encounter the rogue assumption which seems to have become the conventional wisdom in the industry: If the contractor is not required to provide insurance, the contractor assumes that no financial protection is required and the DOE indemnity is, in effect, "first dollar." It is our argument that nothing could be further from the plain meaning of the statute. To understand the fallacy of this assumption, we must begin to chart the route to a successful triggering of the DOE indemnity by a contractor. Here are the steps in summary form:

1. The contractor must be performing work for DOE that involves the risk[61] of public liability.[62]
2. The contractor must not be subject to the various permutations of the $60 million/$500 million indemnity/financial arrangements, and so on.[63]
3. The DOE must have exercised its discretion and elected to indemnify the contractor.[64]
4. There must be a claim of public liability.
5. If the DOE has not elected to require the waiver of certain defenses,[65] the claim must not be deflected by the contractor's asserted defenses. Even if the DOE has required the waiver of certain defenses, the contractor's remaining defenses (if any) must fail to deflect the claim.

6. The financial protection required by DOE (if any) must be exhausted. The DOE indemnity is excess of any such financial protection.[66]

Again, it is at this crucial point that many contractors make their most crucial risk-management error. They assume that no financial protection has been required if DOE does not require nuclear insurance. This is a fundamental misunderstanding of "financial protection", a defined term. Remember, financial protection simply consists of "the ability to respond" to public liability damage claims, and to conduct the defense of such claims.[67]

Some contractors may be confused by the licensee indemnity provisions.[68] Such contractors appear to believe the list set out in the statute is an exhaustive listing (private insurance, private contractual indemnities, self-insurance, "other proof of financial responsibility," or "a combination of such measures"). A careful reading of the statute discloses the intent of *"financial protection"*—any means of responding to damage claims in payment. The plain language of the statute's definition (the ability to respond) makes this clear.

Contractor financial protection, if insurance is removed from the equation, includes cash, hard and soft assets, credit lines, accounts receivable, intellectual property (patents, etc.), contracts with other clients, stock in other companies (subsidiaries, joint ventures, partnership interests), indemnities from contractor, subcontractors, sale of stock, or ownership interest in the company, and like resources. In other words, the total, maximally leveraged net worth of the contractor, when reduced to cash, would allow it to respond to a claim (even absent insurance), and would clearly meet the definition of financial protection in a serious claim scenario.[69]

The real surprise lurking in this set of assumptions may be this: If there is no specified amount of financial protection, then the permitted amount of financial protection is the maximally leveraged net worth of the contractor.

The only remaining obstacle to this kind of entire-company-at-risk circumstance is a determination of whether the DOE required[70] a certain level of uninsured financial protection. Any experienced government contractor knows that significant projects require extensive financial disclosures. By the same token, such contractors know that the financial wherewithal of the prospective bidders is always a consideration. The financial strength of the contractor may not always be determinative, but is almost always a factor.

It can easily be seen, especially in the case of midsize-to-large government contractors, that their size, the nature of the balance sheet, and financial capabilities are components of DOE's selection/award process. These midsize-to-large contractors are, by the financial review process, required to demonstrate the financial strength and ability to complete the project. In the words of the act, such contractors are, as an inherent part of the bid submission/competition process, required to demonstrate and provide financial protection. It is implausible to assert that following a significant claim, cognizant federal employees would say they never considered whether a contractor had a financial substance to respond to a claim.

Contractors who may become nervous about the foregoing analysis could argue that it really amounts to permitting a certain level of financial protection, and that, in the absence of an express DOE mandate setting out specific financial protection requirements, the indemnity should still be first dollar. They could argue that *permitting* is different from *requiring*.[71]

This argument does not prevail. In fact, language from the Federal Acquisition Regulation (FAR) seems to contend that simply reviewing a prospective contractor's financial condition, even if permissive, would still require the exhaustion of all payment from the "Stockholders' Equity Insurance Company".[72] Specifically, the landmine language says

> Except as hereafter *permitted* (emphasis added) or required in writing. . . .[73]

As a result, DOE may require in writing certain levels of financial protection (bonds, insurance, letters of credit, etc.), *or* it may simply "permit" the contractor to go to work in its normal financial condition. Again, this is a potentially ominous circumstance for the midsize-to-large contractor with significant assets, but without significant nuclear insurance.

Moving further into the relevant FAR language, we see that the permitted net worth (financial protection) must first be exhausted before the indemnity is triggered and the government's money flows

> To the extent that the contractor...(is) not compensated by any financial protection permitted or required by DOE, DOE will indemnify the contractor. . ."[74]

It would appear to be abundantly clear that government contractors planning on first-dollar government indemnities in the absence

of a written requirement for insurance or other protection at a specific level of sufficiency are making a fundamentally erroneous risk management decision. If nothing else, they are providing, *de facto*, what is in effect a job-specific policy underwritten by the Stockholders' Equity Insurance Company[75] in a face amount of the net maximum liquidated value of the contractor.

This raises two issues:

1. To protect the taxpayers, the statute wisely directs in § 2210 that
   > In administering the provisions of this Section, the Commission, or Secretary, as appropriate, shall use, to the maximum extent practicable, the facilities and services of private insurance organizations, and the Commission, or Secretary, as appropriate, may contract to pay reasonable compensation for such services.[76]

   Many contractors appear to prefer to use their company equity in lieu of insurance coverage. This article argues that, for better or worse, contractors seem content to (perhaps unknowingly) use their company equity in lieu of such coverage despite the availability of a statutory mandate to pay for such coverage.
2. Mid- and large-size contractors (and perhaps some small ones, too) who chose to bet the net worth of the firm absent insurance[77] might conceivably violate fiduciary duties to shareholders in the process. Imagine a scenario in which a substantial firm faces a catastrophic claim and the indemnity will not be triggered until and unless the financial health of the company is wrecked. Unhappy, suit-prone contractor shareholders are not inconceivable.

CONCLUSIONS

We would do well to remember that these legal and business considerations will live in a much larger, media-fed, politically charged environment in the event of a future Three Mile Island or Chernobyl in the United States. We might ask ourselves, as might contractors and regulators, what the real probabilities are of first-dollar indemnity from the government. The print and electronic headlines would likely create irresistible political pressure to oppose the use of taxpayer funds from the first dollar in protecting the financial value of a company perceived to have caused an environmental catastrophe. By analogy, one might image the outcry if the federal government absorbed the costs of the losses from the Exxon Valdez (*Valdez*) catastrophe. The *60 Minutes* team would have a fine hit piece on why the government saved the nuclear polluters, preserving their corporate profits.[78]

We should recall, too, the Congressional discretion provision in Price Anderson.[79] The relevant language for us is the statutory charge for Congress to take whatever action it deems appropriate "to protect the public from the consequences of a disaster of such magnitude."[80] Returning to the *Valdez* analogy, the ultimate costs to Exxon were widely reported as well in excess of $500 million. A radiation catastrophe could well cause damages in excess of the maximum indemnity.

This language is commonly held to stand for the proposition that Congress would simply increase the indemnity amount, but the language can operate in other ways. Congress could decide that it needed to make an example as a future deterrent. It would seem that a company that demanded first-dollar indemnity, when it had chosen not to insure for a catastrophic consequence to its actions, would face a decidedly less friendly Congress when the time came to ask Congress to elevate the indemnity amount, or when it came time to trigger the indemnity in the first place.

NOTES

1. *See* the work of Richard Rhodes for a superlative chronicle of how the first bomb was conceived, produced, delivered and detonated over Hiroshima in 1945. *The Making of the Atomic Bomb*, Touchstone Books, reprint ed., 1995.

2. Rhodes also provides rich historical detail about the movement to ever-more powerful bombs in his later book, *Dark Sun: The Making of the Hydrogen Bomb*, Touchstone Books, reprint ed., 1996.

3. The Cold War literature on this topic is simply too vast to cite.

4. Pub. L. No. 85-256, 71 Stat. 576 (1957). 42 U.S.C. § 2210 *et seq.* Scholars will note, however, that the first true step in this direction was actually taken more than a decade earlier, in 1946, about a year after the Hiroshima and Nagasaki bombs ended the war. The first comprehensive federal framework governing the nuclear power industry was created by the passage of the Atomic Energy Act of 1946. *See* Act of August 1, 1946, ch. 724, 60 Stat. 755 (1946). *See* discussion in Corcoran v. New York Power Authority 202 F.3d 530 (2d Cir. 1999). *Corcoran* cites Duke Power Co. v. Carolina Environmental Study Group 438 US 59, 63 (1978) for the proposition that the Federal vision of America's nuclear power industry was that "of a government monopoly." (*Duke Power Co.* is discussed in more detail elsewhere in this paper.) *See also*, for example, the history of the Act as discussed in In Re: TMI Litigation Cases Consol., II 940 F.2d 832 (3d Cir. 1991). However, eight years later, the Atomic Energy Act of 1954 (*See* 42 U.S.C. §§ 2011-2281) provided for government licensing of private sector nuclear power operators. *See also, Duke Power* 438 U.S. at 63.

5. Corcoran v. New York Power Authority 202 F.3d 530 (2d Cir. 1999).

6. El Paso Natural Gas Co. v. Neztsosie 526 U.S. 473 (1999).

7. *See* note 4.

8. Duke Power Co. v. Carolina Environmental Study Group, Inc. 438 U.S. 59 (1978) at 438 U.S. 65.

9. Mr. Justice Burger, in *Duke Power Co.* at 438 U.S. 63, 64, citing, in turn, H.R. Rep. No. 2181, 83rd Cong., 2d Session, 1-11 (1954) relative to the statutory evolution from Atomic Energy Act of 1946 (note 4, *supra*) through the Atomic Energy Act of 1954 (Act of Aug. 30, 1954), ch. 1073, 68 Stat. 919, as amended, 42 U.S.C. §§ 2011-2281) and *see also*, Power Reactor Development Co. v. Electrical Workers 367 U.S. 396 (1961), *rev'g. and remanded*, 108 U.S. App. D.C. 97, 280 F.2d 645 (1960). *See also*: Green, "Risk, Liability and Indemnity", 71 *Mich. L. Rev.* 479-481 (1973). *See also* note 76.

10. Mr. Justice Burger in *Duke Power Co.*, note 8.

11. *See* note 4.

12. 438 U.S. at 64, 65.

13. *Id. See also*: *Insurance for Nuclear Installations*, International Atomic Energy Agency, Vienna, 1970.

14. *Id.* There is also a statutorily created retrospective plan allowing for post-even assessments. This arrangement is discussed *infra*.

15. 438 U.S. 65.

16. *Id. See also*: S. Rep. No. 1605, 89th Cong., 2d Session, 6-10 (1966). Price Anderson's supposed deference to State tort law has been steadily eroded.

17. 42 U.S.C. § 2210(n)(2); 438 U.S. 66 at fn. 16.

18. *See*: The Energy Reorganization Act of 1974 at 42 U.S.C. § 5801, *et seq.*, especially §§ 5814 and 5841.

19. 42 U.S.C. § 2210(b); 438 U.S. 66 at fn. 7, also citing 42 Fed. Reg. 46 (1977). *Duke Power*, note 8, had conclusively settled in the affirmative any doubt as to whether the liability cap created by Price Anderson would survive attacks based on alleged constitutional infirmities.

20. 42 U.S.C. § 2210(e).

21. Pub. L. No. 100-408, 102 Stat. 1066 (codified at 42 U.S.C. § 2210 (1994)).

22. A comprehensive review of the TMI litigation would properly be the subject of an extensive law review article. For our limited, noncomprehensive purposes, the reader is referred to: Susquehanna Valley v. Three Mile Island 619 F.2d 231 (3d Cir. 1980); People of Three Mile Island v. Nuclear Regulatory Commission 747 F.2d 139 (3d Cir. 1984); In Re: Three Mile Island Alert, Inc. 771 F.2d 720 (3d Cir. 1985); In Re: TMI Litigation Cases Consolidated II 940 F.2d 832 (3d Cir. 1991); In Re: TMI 67 F.3d 1103 (3d Cir. 1995), *cert. den.*, 516 U.S. 1154 (1996); In Re: *TMI* 89 F.2d 1106 (3d Cir. 1996); In Re: TMI Litigation 193 F.3d 613 (3d Cir. 1999).

23. El Paso Natural Gas Co. v. Neztsosie 526 U.S. 473 at 477 (1999), Mr. Justice Souter citing 102 Stat. 1076, 42 U.S.C. § 2210(n)(2), (n)(3), and (o), as well as S. Rep. No. 100-218, p. 13 (1987).

24. *Id.* By 2000, the Fifth Circuit could calmly proclaim that the 1988 jurisdictional expansion in 42 U.S.C. § 2210(n)(2) (*i.e.*, the deletion of "extraordinary nuclear

occurrence") created "automatic Federal jurisdiction" for *public liability* from a *nuclear incident*. *See*: Acuna v. Brown & Root 200 F.3d 355 (5th Cir. 2000) at 339.

25. *See* note 18.

26. *See*: Kiick v. Metropolitan Edison 784 F.2d 490 (3d Cir. 1986) and Stibitz v. General Pub. Utils. Corp. 746 F.2d 9903 (3d Cir. 1984), *cert. den.*, 469 U.S. 1214 (1985).

27. In Re: TMI General Public Utilities Corp. 67 F.3d 1103 (3d Cir. 1995).

28. Corcoran v. New York Power Authority 202 F.3d 530 (2d Cir. 1999).

29. *Corcoran, id*; 42 U.S.C. § 2014(hh). Justice White delivered the following instructive summary in the Silkwood case: "For example, the Committee rejected a suggestion that it adopt a Federal tort to replace existing state remedies, noting that such displacement of state remedies would engender great opposition." 464 U.S. 238 (1984) at 254, citing hearings before the Joint Committee on Atomic Energy on proposed amendments to the Price-Anderson Act relating to Waiver of Defenses, 89th Cong., 2d Session, 31, 75 (1966); S. Rep. No. 1605, 89th Cong., 2d Session at 6-9 (1966).

30. In Re: TMI Litig. Cases Consol II 940 F.2d 832 (3d Cir. 1991), *cert. den.*, 503 U.S. 906 (1992); and In Re: TMI 67 F.3d 1103 (3rd Cir. 1995). *See also*: Pacific Gas & Electric v. Energy Resources Conservation and Development Commission *et al.*, 461 U.S. 190 (1983).

31. *See* note 3.

32. In Re: TMI, note 30. It is also important to recall the US Supreme Court's decision in *Silkwood* that the punitive damages allowed by state law were not pre-empted by Price Anderson. *See*: Silkwood v. Kerr McGee Corp. 464 U.S. 238 (1984). However, courts now would be faced with a bar of punitive damages claimed against a "person indemnified" (*see, infra*) by operation of the Act's provisions at 42 U.S.C. § 2210(s).

33. *Id.* The court was focused on PA law. Other states may have variations in the tort liability creation formula.

34. 10 C.F.R. §§ 20.105 and 20.106; 25 Fed. Reg. 8595, 8595 (1960); 22 Fed. Reg. 548, 549 (1957); 29 Fed. Reg. 14434, 14434 (1964); 28 Fed. Reg. 10170, 10171 (1963); 35 Fed. Reg. 18385 (1970); 40 Fed. Reg. 19439, 19439 (1975). C.F.R. references by the court were to the 1979 version (year of the TMI incident).

35. 42 U.S.C. § 2014(j). This determination requirement took roughly one year for TMI. *See*: discussion in Kiick v. Metropolitan Edison 784 F.2d 440 (3d Cir. 1986). The delay caused confusion in the courts and elsewhere to such an extent that the long-standing requirement for such a determination was effectively removed by the 1988 Amendments. The focus of the statute now is on a "nuclear incident." *See* note 36.

36. 42 U.S.C. § 2014(q).

37. *See* the discussion of federal/state tort law pre-emption and interaction in Section III of this paper, *supra*. Perhaps the most far-reaching and creative attempt to describe a situation involved the Nuremburg-like allegations of the Plaintiffs in *In Re: Cincinnati Radiation Litigation* 874 F. Supp. 796 (1995) at 832. There, the unconsented-to irradiation of uninformed patients (with accompanying harms) as part of undisclosed government Department of Defense tests were (unsuccessfully) alleged to be "nuclear incidents."

38. 42 U.S.C. § 2014(w). The term *public liability* excludes claims under state or Federal workman's compensation acts brought by persons who are *indemnified* (a defined term) and are employed at the site of and in connection with the activity where the nuclear incident occurs; claims arising out of an acts of war; and claims for loss of or damage to property at the site and used in connection with the licensed activity where the nuclear incident occurs.

39. 42 U.S.C. § 2014(k).

40. 42 U.S.C. § 2014(m).

41. 42 U.S.C. § 2014(t).

42. 42 U.S.C. § 2210(e), note 20.

43. 42 U.S.C. § 2210(c).

44. 42 U.S.C. § 2210(d).

45. 42 U.S.C. § 2014(p).

46. *See* notes 36 and 39. Specifically, § 170(a) of the Act.

47. *See* note 35.

48. *See* notes 35 and 36.

49. *See* note 38.

50. 42 U.S.C. § 2210(c).

51. *See* notes 11, 12, and 13.

52. *See* note 41.

53. 42 U.S.C. § 2210(n)(1).

54. *Id.*

55. 42 U.S.C. § 2210(c).

56. 42 U.S.C. § 2210(d)(1)(A).

57. *Id.*

58. *Id.*

59. 42 U.S.C. § 2210(d)(1)(B)(i)(II).

60. 42 U.S.C. § 2210(d)(2).

61. *See* note 57.

62. *See* note 38.

63. *See* note 58.

64. *See* note 56.

65. *See* note 59.

66. *See* note 60.

67. *See* note 39.

68. 42 U.S.C. § 2210(b).

69. In my lectures, I refer to this kind of uninsured worse-case, liquidate-the-company-for-the-judgment-creditor circumstance as a payment by the "Stockholders' Equity Insurance Company."

70. 42 U.S.C. § 2210(d)(2).

71. To coin a phrase, "It all depends on what you say *is* is."

72. *See* note 69.

73. FAR 952-250-70(c).

74. FAR 952-250-70(d)(1).

75. *See* note 69.

76. 42 U.S.C. § 2210(g).

77. Insurance is readily available in the marketplace on paper of the highest quality, with very significant capacity, and at rates clearly reasonable under the language of 42 U.S.C. § 2210(g).

78. Price Anderson personal injury action will include significant claims for damages. The reader may want, as an example, to review the allegations of the plaintiffs in Day v. NLO, Inc. 3 F.3d 153 (6th Cir. 1993) and In Re: NLO, Inc. 5 F.3d 154 (6th Cir. 1993) where plaintiffs alleged some $200,000,000.00 in damages.

79. *See* note 20.

80. *Id.*