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Report to Congress on the Price-Anderson Act

Prepared by

U. S. Department of Energy

Department of Energy
Report to Congress on the Price-Anderson Act

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Executive Summary

Based upon over 40 years of experience, the United States Department of Energy (DOE) believes that renewal of the Price-Anderson Act is in the best interests of DOE, its contractors, its subcontractors and suppliers, and the public.

In 1957, Congress enacted the Price-Anderson Act as an amendment to the Atomic Energy Act of 1954 to encourage the development of the nuclear industry and to ensure prompt and equitable compensation in the event of a nuclear incident. Specifically, the Price-Anderson Act established a system of financial protection for persons who may be liable for and persons who may be injured by a nuclear incident. With respect to activities conducted for DOE, the Price-Anderson Act achieves these objectives by requiring DOE to include an indemnification in each contract that involves the risk of a nuclear incident. This DOE indemnification: (1) provides omnibus coverage of all persons who might be legally liable; (2) indemnifies fully all legal liability up to the statutory limit on such liability (currently $9.43 billion for a nuclear incident in the United States); (3) covers all DOE contractual activity that might result in a nuclear incident in the United States; (4) is not subject to the usual limitation on the availability of appropriated funds; and (5) is mandatory and exclusive.

The Price-Anderson Amendments Act of 1988 made three significant changes with respect to the DOE indemnification. The 1988 Amendments greatly increased the amount of indemnification; made indemnification mandatory in all DOE contracts; and established a system of civil penalties for DOE indemnified contractors, subcontractors, and suppliers.

DOE is convinced that the indemnification provisions applicable to its activities should be continued without any substantial change because it is essential to DOE's ability to fulfill its statutory missions involving defense, national security and other nuclear activities; it provides proper protection for members of the public that might be affected by DOE's nuclear activities; it is cost-effective; and there are no satisfactory alternatives.

Elimination of the DOE indemnification would have a serious effect on the ability of DOE to perform its missions. Without indemnification, DOE believes that it would be difficult to obtain responsible, competent contractors, subcontractors, suppliers and other entities to carry out work involving nuclear materials. Other means of indemnification have practical and legal limitations, do not provide automatic protection and depend on cumbersome contractual arrangements.

Private insurance is most likely not available for many DOE activities. Even when available, it would be extremely expensive, limited, and restricted. Because the DOE indemnification operates as a form of self-insurance for claims resulting from nuclear incidents, DOE incurs no out-of-pocket costs for insurance. Moreover, thus far, it has not paid out significant amounts for claims pursuant to its

indemnification authority.

The current amount of indemnification ($9.43 billion) should not be decreased. DOE believes the continuation of an amount at least this high is essential to assure the public that prompt and equitable compensation will be available in the event of a nuclear incident or precautionary evacuation.

The DOE indemnification should continue to provide broad and mandatory coverage of contractual activities conducted for DOE. The protection afforded by the DOE indemnification should not be dependent on factors such as whether an activity (1) involves the risk of a substantial nuclear incident, (2) takes place under a procurement contract or (3) is undertaken by a DOE contractor pursuant to a license from the Nuclear Regulatory Commission (NRC). Limitations based on such factors would likely be cumbersome to administer without achieving any significant cost savings.

This report addresses two additional issues that are closely related to continuation of the DOE indemnification. First, the report reviews DOE's experience under the 1988 Price-Anderson Act Amendments that grant DOE authority to impose civil penalties for violations of nuclear safety requirements by indemnified contractors, subcontractors and suppliers. This authority has proven to be a valuable tool for increasing the emphasis on nuclear safety and enhancing the accountability of DOE contractors. DOE supports continuation of this authority to impose civil penalties on its for-profit indemnified contractors. Second, the report examines the potential effects on the Price-Anderson Act of the Convention on Supplementary Compensation for Nuclear Damage. Ratification of this Convention will require conforming amendments to the Price-Anderson Act. These conforming amendments, however, will not necessitate any significant changes in the Price-Anderson Act.

This report contains five recommendations:

Recommendation 1. The DOE indemnification should be continued without any substantial change.

Recommendation 2. The amount of the DOE indemnification should not be decreased.

Recommendation 3. The DOE indemnification should continue to provide broad and mandatory coverage of activities conducted under contract for DOE.

Recommendation 4. DOE should continue to have authority to impose civil penalties for violations of nuclear safety requirements by for-profit contractors, subcontractors and suppliers.

Recommendation 5. The Convention on Supplementary Compensation for Nuclear Damage should be ratified and conforming amendments to the Price-Anderson Act should be adopted.

Department of Energy
Price-Anderson Act Report to Congress

I. INTRODUCTION

The Price-Anderson Amendments Act of 1988 (1988 Amendments)[1] directed both the Department of Energy (DOE) and the Nuclear Regulatory Commission (NRC) to file reports with Congress containing their respective recommendations for continuation, repeal or modification of the Price-Anderson Act.[2] Section 170.p. of the Atomic Energy Act provides:

> The Commission [NRC] and the Secretary shall submit to the Congress by August 1, 1998, detailed reports concerning the need for continuation or modification of the provisions of [the Price-Anderson Act], taking into account the condition of the nuclear industry, availability of private insurance, and the state of knowledge concerning nuclear safety at that time, among other relevant factors and shall include recommendations as to the repeal or modification of any of the provisions of this section.

This report fulfills the statutory requirement in § 170.p. by focusing on those provisions of the Price-Anderson Act under which DOE indemnifies its contractors and other persons for legal liability arising from a nuclear incident or precautionary evacuation caused by activities under a contract with DOE (the DOE indemnification). It also examines the related provisions in § 234A of the Atomic Energy Act under which DOE has the authority to impose civil penalties for violations of nuclear safety requirements by contractors, subcontractors and suppliers covered by the DOE indemnification. Finally, it examines the effects on the Price-Anderson Act that would result from ratification of the Convention on Supplementary Compensation for Nuclear Damage.

The Secretary of Energy directed the formation of a task force of DOE employees to review the need for the continuation or modification of the Price-Anderson Act and then to prepare this report. The task force was chaired by the Office of General Counsel and included representatives from all programs affected by the Price-Anderson Act, as well as participants from field and operations offices.

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[1]The Price-Anderson Amendments Act of 1988 (1988 Amendments), Pub. L. No. 100-408, 102 Stat. 1066, amended the Atomic Energy Act (AEA), 42 U.S.C. §§ 2011 *et seq.* (1994 & Supp. II 1996).

[2]AEA § 170 and relevant definitions in § 11 comprise the Price-Anderson provisions of the Atomic Energy Act. These provisions are reproduced in Appendix B. Appendix B also reproduces § 234A of the Atomic Energy Act, which grants DOE authority to impose civil penalties on contractors, subcontractors and suppliers covered by the DOE indemnification.

In preparing this report, the task force considered DOE's experience with the DOE indemnification, the potential effects on current and future DOE activities if the DOE indemnification were continued, modified or terminated, and the feasibility of alternatives to the DOE indemnification. It also solicited and received comments from members of the public. DOE did not expend any funds to write this report beyond the normal salaries and overhead expenses of DOE employees. Further, DOE did not use any contractor or subcontractor support directly in preparing this report. Documents concerning the task force membership and its activities may be found at the DOE Price-Anderson Act website which is located on the internet at www.gc.doe.gov.

The task force developed and published a Notice of Inquiry that requested comments from the public on whether provisions of the Price-Anderson Act should be continued, modified or eliminated.[3] The Notice contained a discussion of the Price-Anderson Act and a list of potential issues. The initial comments were made available at the DOE Price-Anderson Act website and an opportunity was provided for reply comments on the positions expressed in the initial comments.

Thirty-four persons responded to the Notice of Inquiry, including thirteen DOE contractors (six nonprofit contractors and seven for-profit contractors), nine state and local governments in Nevada and California, four associations, two environmental groups, and three private citizens. Four reply comments were filed. The DOE Price-Anderson Act website contains all the comments and reply comments verbatim, a log of the names and addresses of the commenters and summaries of the comments.

II. BACKGROUND

A. Discussion of the DOE indemnification

In 1957, Congress enacted the Price-Anderson Act as an amendment to the Atomic Energy Act to provide a system of financial protection for persons who may be injured by and persons who may be liable for a nuclear incident. The Price-Anderson Act was intended 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 victims

[3] 62 Fed. Reg. 68,272 (Dec. 31, 1997). The Notice of Inquiry is reproduced in Appendix A.

for damages and injuries in the event of a nuclear incident. Congress renewed and amended the Price-Anderson Act in 1966, 1969, 1975, and most recently in 1988.[4]

With respect to activities conducted for DOE, the Price-Anderson Act achieves its objectives by requiring DOE to include an indemnification in each contract that involves the risk of a nuclear incident. This DOE indemnification: (1) provides omnibus coverage of a DOE contractor and all other persons who might be legally liable for injury or damage resulting from a nuclear incident; (2) indemnifies fully all legal liability up to the statutory limit on such liability (approximately $9.43 billion for a nuclear incident in the United States); (3) covers any DOE contractual activity that might result in a nuclear incident in the United States; (4) is not subject to the availability of appropriated funds; and (5) is mandatory and exclusive.[5] The Department of Energy Acquisition Regulation (DEAR)[6] sets forth standard nuclear indemnification clauses that are incorporated into all DOE contracts and subcontracts involving source, special nuclear, or by-product material (nuclear material).

The 1988 Amendments significantly increased the amount of the DOE indemnification for a nuclear incident in the United States from $500 million to $9.43 billion, made inclusion of the DOE indemnification mandatory in all DOE contracts involving the risk of a nuclear incident, and established a system of civil penalties for DOE contractors, subcontractors, and suppliers covered by the DOE indemnification.

The 1988 Amendments extended the Price-Anderson Act for fifteen years until August 1, 2002. On that date, DOE's authority to include the DOE indemnification in a contract will expire. Accordingly, if the Price-Anderson Act is not extended, the DOE indemnification will not cover activity under any contract entered into after August 1, 2002. This expiration would not affect activity under a contract in effect on that date until the normal term of the contract was completed.

B. Nuclear safety initiatives undertaken by DOE subsequent to the 1988 Amendments

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[4]For a comprehensive discussion of the issues and legislative history, *see* Dan M. Berkovitz, *Price-Anderson Act: Model Compensation Legislation?--The Sixty-Three Million Dollar Question*, Vol.13, No. 1 Harv. Envtl. L. Rev. 1 (1989); John F. McNett, *Nuclear Indemnity for Government Contractors under the Price-Anderson Act: 1988 Amendments*, Winter 1989 Gov't Cont. L. J. 1; John F. McNett, *Nuclear Indemnity for Government Contractors under the Price-Anderson Act*, 14 Pub. Cont. L. J. 40 (1983).

[5]*See* Appendix A for a complete description of the DOE indemnification and how it operates.

[6]Nuclear Hazards Indemnity Clauses, 48 C.F.R. Parts 950, 952, 970 (1997), 55 Fed. Reg. 33,730 (proposed Aug. 17, 1990), 56 Fed. Reg. 57,824 (final Nov. 14, 1991). *See* http://www.pr.doe.gov/dear.html.

Subsequent to the enactment of the 1988 Amendments, DOE has undertaken several initiatives to improve the safety of its nuclear activities. These initiatives include: (1) greater emphasis on the identification and implementation of appropriate nuclear safety requirements; (2) creation of the Office of Enforcement and Investigations and increased use of field offices to enforce nuclear safety; (3) contract reform, including the adoption of integrated safety management requirements in DOE contracts; and (4) more independent oversight of nuclear safety matters and public participation in decisions concerning the safety of DOE nuclear activities.

1. Identification and implementation of nuclear safety requirements

DOE has enhanced the quality of the safety requirements applicable to its nuclear activities in several ways. DOE streamlined the nuclear safety orders and related documents in the DOE directives system[7] to reduce unnecessary and redundant requirements. At the same time, where appropriate, DOE adopted certain requirements as regulations through the rulemaking process. Specifically, DOE adopted: (1) procedural rules for DOE nuclear activities, including procedures for investigating possible violations of nuclear safety requirements and assessing civil penalties where such violations occur,[8] (2) radiological protection rules for workers and other persons involved in the conduct of DOE nuclear activities,[9] (3) quality assurance rules,[10] (4) rules on workplace substance abuse programs at DOE

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[7]*See* DOE directives at http://www.explorer.doe.gov:1776/htmls/directives.html including technical standards at http://www.etde.org/html/techstads.

[8]Procedural Rules for DOE Nuclear Activities, 10 C.F.R. Part 820 (1998), 54 Fed. Reg. 38,865 (notice of inquiry and request for public comments, Sept. 21,1989); 56 Fed. Reg. 64,290 (proposed Dec. 9, 1991); 57 Fed. Reg. 20,796 (clarified May 15, 1992); 58 Fed. Reg. 43,680 (final Aug. 17, 1993); 62 Fed. Reg. 46,181 (final Sept. 2, 1997) (adjusting penalties for inflation); 62 Fed. Reg. 52,479 (interim rule and amendment of Appendix A - General Statement of Enforcement Policy, Oct. 8, 1997).

[9]Occupational Radiation Protection, 10 C.F.R. Part 835 (1998), 56 Fed. Reg. 64,334 (proposed Dec. 9, 1991); Fed. Reg. 65,458 (final Dec. 14, 1993); 61 Fed. Reg. 67,600 (proposed amendment Dec. 23, 1996); 63 Fed. Reg. 59,662 (final amendment Nov. 4, 1998); 63 Fed. Reg. 72,129 (corrected Dec. 31,1998). *See also* Ruling 1995-1, 61 Fed. Reg. 4,209 (Feb. 5, 1996) (interpreting scope of 10 C.F.R. Parts 830 and 835).

[10]Quality Assurance Requirements, 10 C.F.R.§ 830.120 (1998), 56 Fed. Reg. 64,316 (proposed Dec. 9, 1991); 59 Fed. Reg. 15,843 (final April 5, 1994). *See also* Ruling 1995-1, 61 Fed. Reg. 4,209 (Feb. 5, 1996) (interpreting scope of 10 C.F.R. Parts 830 and 835).

sites[11] and (5) whistleblower protection rules.[12] DOE currently is considering the need for additional regulatory requirements on safety management[13] and on radiological protection of the public and the environment.[14]

In addition, DOE has engaged in a comprehensive exercise to ensure that appropriate nuclear safety requirements are identified and implemented with respect to DOE activities. The Department Standards Committee (DSC) has coordinated efforts to ensure that the requirements used in connection with a particular activity are sufficient to assure adequate protection of workers, members of the public and the environment in a manner commensurate with the type and complexity of the activity and the associated hazards.[15] To accomplish this task, the DSC developed the Necessary and Sufficient Process[16] to identify environment, health, and safety requirements appropriate for a particular DOE activity. This process is based on defining the work to be performed and analyzing the hazards associated with the work.

2. Enforcement program

DOE established the Office of Enforcement and Investigations, which reports to the Assistant Secretary for Environment, Safety and Health, to investigate possible violations of the nuclear safety requirements and, where appropriate, to impose civil penalties and other remedies and corrective actions. DOE field office and program personnel assist in investigations and enforcement and provide regular oversight of contractor activities.

As of January 25, 1999, the Office of Enforcement and Investigations had issued thirty-three proposed Notices of Violation to DOE contractors including twenty-eight civil penalties totaling $1,995,000. All

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[11]Workplace Substantive Abuse Programs at DOE Sites, 10 C.F.R. Part 707 (1998), 57 Fed. Reg. 32,656 (final 1992); 57 Fed. Reg. 20,796 (clarified May 15, 1992).

[12]DOE Contractor Employee Protection Program, 10 C.F.R. Part 708 (1998), 57 Fed. Reg. 7,541 (final 1992); 57 Fed. Reg. 20,796 (clarified May 15, 1992).

[13]Nuclear Safety Management, 56 Fed. Reg. 64,316 (to be codified as 10 C.F.R. Part 830) (proposed Dec. 9, 1991); 60 Fed. Reg. 45,381 (notice of limited reopening of the comment period and availability of draft final rule August 31, 1995); 60 Fed. Reg. 47,498 (corrected Sept. 13, 1995).

[14]Radiation Protection of the Public and the Environment, 58 Fed. Reg. 16,268 (to be codified at 10 C.F.R. Part 834) (proposed March 25, 1993); 60 Fed. Reg. 45,381 (notice of limited reopening of the comment period and availability of draft final rule Aug. 31, 1995); 60 Fed. Reg. 47,498 (corrected Sept. 13, 1995); 61 Fed. Reg. 6,799 (proposed Feb. 22, 1996) (terrestrial biota).

[15]*Criteria for the Department's Standards Program*, DOE/EH/-0416 (August 1994).

[16]DOE P 450.3 (1996); DOE M 450.3-1 (1996).

of the civil penalties issued to for-profit contractors have been paid and deposited to the U.S. Treasury.[17]

3. Contract reform

DOE has undertaken an extensive reform of its contracting process to improve the management of work and safety throughout the DOE complex. Specifically, DOE has revised the DEAR to include provisions on performance-based contracting, competition, award fees, property management, record-keeping, insurance, litigation, claims, accountability provisions, and the conditional fee policy.[18] The most significant contract reform affecting nuclear safety is the adoption of DEAR clauses that mandate (1) the use of integrated safety management systems and (2) the identification of laws, regulations, and DOE directives to be applied to activities under DOE contracts.

DOE adopted the DEAR clause on *the Integration of Environment, Safety and Health into Work Planning and Execution*[19] to create a standard prescribed contract clause on how contractors should perform work in a manner that ensures adequate protection for employees, the public, and the environment. It provides for: (1) defining the scope of work; (2) identifying and analyzing hazards associated with the work; (3) developing and implementing hazard controls; (4) performing work within controls; and (5) providing feedback on adequacy of controls and continuing to improve safety management.[20] The clause establishes the principles that: (1) line managers must be given responsibility and held accountable for implementing health and safety requirements; (2) clear lines of authority and responsibility must be established; (3) workers and managers must have competence to assess and deal with the hazards; (4) resources must be effectively allocated; (5) hazards must be evaluated and an agreed-upon set of standards and requirements must be established before work is performed; (6) administrative and engineering controls must be tailored to the work and associated hazards; and (7) conditions and authorization authorities must be agreed upon. The clause specifically requires each contractor to submit a safety management system description for DOE approval that explains how the contractor will implement the system to establish performance objectives, measures and commitments;

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[17]*See* http://tis-nt.eh.doe.gov/enforce/ for a current list of Enforcement Actions and civil penalties assessed and paid.

[18]Department of Energy Acquisition Regulation, 48 C.F.R. Parts 901, 917, 926, 950, 952, 970 (1997), 62 Fed. Reg. 34,842 (final June 27, 1997) (contract reform "mega rule"). *See also* Conditional payment of fee or incentives, 62 Fed. Reg. 17,800, 17,810 (to be codified at 48 C.F.R. Part 915 & § 970.5204-XX) (proposed April 10, 1998), 64 Fed. Reg. 12,219 (final March 11, 1999).

[19]DOE Management and Operating Contracts , 48 C.F.R. § 970.5204-2 (1997), 62 Fed. Reg. 34,842, 34,865 (final June 27, 1997).

[20]*Id.* § 970.5204-2(c).

integrate work planning, hazards assessment, hazard controls, budget and resource planning and continuous improvement.

DOE also developed a DEAR clause on *Laws, Regulations and DOE Directives*[21] and made it an integral part of the safety management system. This clause requires clear identification of requirements, including nuclear safety requirements, to be implemented in connection with nuclear activities under a contract. In general, the clause requires a contractor either to incorporate all applicable requirements in DOE Orders and regulations or to use a tailoring process to develop a set of environment, health and safety requirements that is commensurate with the complexities and hazards associated with the work to be performed under the contract.

4. Independent oversight and public participation

Since its creation in 1988, the Defense Nuclear Facilities Safety Board (DNFSB) has provided independent oversight of DOE defense nuclear facilities and made many valuable recommendations on nuclear safety issues. Implementing these recommendations has been and continues to be an impetus for enhancing safety throughout the DOE complex. The DNFSB's Annual Report to Congress provides a categorization of recommendations by complexity, lead organization, and progress toward completion.[22] In addition, DOE has established an oversight program within the Office of the Assistant Secretary for Environment, Safety and Health to independently inspect and assess environment, safety and health and safeguards and security at its facilities.[23]

DOE has adopted and implemented a Public Participation Policy.[24] This policy fosters improvements in nuclear safety by ensuring decisions benefit from the perspective of those interested in and affected by DOE activities, such as workers and those who live in communities where DOE activities take place. In furtherance of this policy, DOE has established citizens advisory boards (CABs) at all its major sites to establish open, ongoing, two-way communication, both formal and informal, between DOE and its stakeholders. This process provides a diverse collection of opinions, perspectives, and values and enables each party to learn about and better understand each other's views and positions. As a result of such communication, DOE can make better, more informed decisions.

III. RECOMMENDATIONS

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[21] *Id.* § 970.5204-78.

[22] *See* http://www.dnfsb.gov/.

[23] *See* http://tis.eh.doe.gov/oversight/.

[24] DOE P 1210.1 (1994).

Recommendation 1. The DOE indemnification should be continued without any substantial change.

DOE is convinced the DOE indemnification should be continued because:

1. it is essential to DOE's ability to fulfill its statutory missions involving defense, national security and other nuclear activities;
2. it provides proper protection for members of the public that might be affected by DOE's nuclear activities;
3. it is cost-effective; and
4. there are no satisfactory alternatives.

A. DOE indemnification is essential to DOE's ability to fulfill its statutory missions.

In order to carry out its statutory missions, DOE utilizes various businesses, professional organizations, educational institutions and other entities. The willingness of these entities to enter into contracts to provide goods and services in connection with activities that involve the risk of a nuclear incident is highly dependent on the availability of the DOE indemnification. DOE's experience indicates that existing and potential contractors would be extremely reluctant to do business with DOE if the DOE indemnification were terminated. This view is supported by the comments submitted by DOE contractors in response to the Notice of Inquiry.

Nonprofit contractors in particular are not in a position to protect themselves against the financial implications of a nuclear incident. Without indemnification, several have stated that they would have to discontinue work for DOE. For-profit contractors stated that few would be willing to risk performing DOE work involving nuclear materials without indemnification. This would be particularly true for those for whom DOE work is a small part of their business. Elimination could also affect the ability of DOE contractors to obtain goods and services from subcontractors and suppliers. Typically, DOE work is a smaller part of the business of subcontractors and suppliers, and may not be worth the risk. It could also affect DOE's ability to obtain cooperation from other institutions and community organizations on research, clean-up activities or other projects funded by DOE.

Thus, if the authority for the DOE indemnification were to expire in 2002, DOE could face a serious crisis in fulfilling its defense, national security and other statutory missions because of an inability to obtain goods and services from responsible and experienced contractors, subcontractors and suppliers.

B. DOE indemnification guarantees the availability of $9.43 billion to ensure prompt and equitable compensation for members of the public.

The DOE indemnification ensures that $9.43 billion is available to compensate claims for personal injury and property damage resulting from a nuclear incident in connection with a DOE activity. DOE

believes it is essential to provide members of the public with this level of assurance concerning compensation in the event of a nuclear incident in connection with a DOE activity.[25] Moreover, the Price-Anderson Act contains numerous provisions to ensure the prompt availability and equitable distribution of compensation, including emergency assistance payments, consolidation and prioritization of claims in one federal court, channeling liability to one source of funds, and waiver of certain defenses in the event of a large accident. Equitable compensation should not be dependent on the financial resources of a particular contractor, subcontractor or supplier or on the uncertainties of protracted litigation.

1. The Price-Anderson Act ensures the payment of compensation immediately after a nuclear incident.

The Price-Anderson Act explicitly provides DOE with authority to make payments for the purpose of providing immediate assistance following a nuclear incident. In addition, it provides for the establishment of coordinated procedures for the prompt handling, investigation and settlement of claims resulting from a nuclear incident.[26]

2. The Price-Anderson Act consolidates and prioritizes claims in one federal court.

The Price-Anderson Act provides that the United States district court in the district where a nuclear incident takes place shall have original jurisdiction over any case resulting from a nuclear incident. If a case is brought in another court, it must be removed to the federal district court with jurisdiction upon motion of a defendant, NRC or DOE.

In addition to providing a single federal court with jurisdiction over all claims, the Price-Anderson Act provides for the establishment of a special caseload management panel to consolidate claims, establish priorities, and implement other measures that will encourage the equitable, prompt and efficient resolution of claims.[27] It also provides for the development of a plan for the distribution of funds where such a plan is appropriate.[28]

Given the statutory policy of consolidating all nuclear incident claims under the Price-Anderson Act in a single federal district court, the United States has filed an *amicus curiae* brief with the United States

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[25]See the section on Recommendation 2 for a more comprehensive discussion on the importance of guaranteeing the public the availability of at least $9.43 billion.

[26]AEA § 170.m.

[27]AEA § 170.n.(3)(A) & (B).

[28]AEA § 170.o.

Supreme Court seeking reversal of a 1998 Ninth Circuit Court of Appeals decision that would make the tribal exhaustion doctrine applicable to a nuclear incident on an Indian reservation. *See El Paso Nat. Gas Co. v. Neztsosie*, 136 F.3d 610 (9th Cir.), *cert. granted*, 119 S. Ct. 334 (1998) (No. 98-6). The United States argues that, under current law, a defendant who objects to tribal court adjudication of nuclear incident claims is entitled, upon serving notice in the tribal court, to seek prompt injunctive relief in federal court against further proceedings in the tribal court, subject to the right of the plaintiffs to refile their claims in federal court. To facilitate implementation of the existing statutory policy giving a defendant sued in any court (or the Secretary of Energy or the Nuclear Regulatory Commission) a right to choose a federal forum for litigation of nuclear incident claims, consideration should be given to including explicit language in the Price-Anderson Act, 42 U.S.C. § 2210(n)(2), to permit formal removal of nuclear incident claims from tribal courts by the same procedures as are provided for removal of such claims from state courts under current law.

3. The Price-Anderson Act minimizes protracted litigation.

The Price-Anderson Act contains numerous provisions to minimize protracted litigation and, in particular, eliminates the need to prove the fault of or to allocate legal liability among various potential defendants. Specifically, in the case of an extraordinary nuclear occurrence (that is, any nuclear incident that causes substantial off-site damage), the Price-Anderson Act imposes strict liability by requiring the waiver of any defenses related to conduct of the claimant or fault of any person indemnified.[29] Moreover, the Price-Anderson Act channels to one source of funds (that is, the DOE indemnification) the payment of all claims arising from the legal liability of any person for a nuclear incident. This "economic channeling" eliminates the need to sue all potential defendants or to allocate legal liability among multiple potential defendants. Economic channeling results from the broad definition of "persons indemnified" to include any person that may be legally liable for a nuclear incident, regardless of whether they have any contractual or other relationship with DOE.[30] Thus, regardless of who is found legally liable for a nuclear incident resulting from a DOE activity, the DOE indemnity will pay the claim.[31]

C. The DOE indemnification is cost-effective.

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[29]AEA § 170.n.

[30]AEA §§ 11.t. & 170.d.(2).

[31]In the hearings on the original Act, "the question of protecting the public was raised where some unusual incident, such as negligence in maintaining an airplane motor, should cause an airplane to crash into a reactor and thereby cause damage to the public. Under this bill, the public is protected and the airplane company can also take advantage of the indemnification and other proceedings." S. Rep. No. 296, 85th Cong., 1st. Sess. (1957), U.S. Code Cong. & Ad. News 1803, 1818.

DOE treats the DOE indemnification as a form of self-insurance and thus incurs no out-of-pocket costs for insurance relating to damage that might result from a nuclear incident. The DOE indemnification costs the taxpayers only the amount of actual settlements of claims and judgments in lawsuits brought under the Price-Anderson Act.

1. Payments under the DOE indemnification have not been not significant.

A number of claims have been filed in federal district courts seeking recovery under the Price-Anderson Act since the 1988 Amendments. Settlements have been paid in two cases that arose out of activities at the DOE Feed Material Production Center (FMPC) in Fernald, Ohio conducted from the 1950's to the 1980's and were brought in the United States District Court for the Southern District of Ohio.

The first lawsuit, *In re Fernald Litigation,*[32] was brought in 1985 by property owners and residents living near the facility and local businesses and their employees (excluding employees of the DOE facility contractor). Plaintiffs alleged causes of action for negligence, strict liability, private nuisance, willful and wanton misconduct, violation of the parent corporation's contractual guaranty and violation of the Price-Anderson Act. Plaintiffs claimed damages for emotional distress and diminution in property values. The parties participated in a summary jury trial in 1989 in which the jury returned a verdict for the plaintiffs for $136 million including $1 million for diminution in property value, $80 million for a medical monitoring fund and $55 million in punitive damages. The parties reached a settlement for $78 million that was paid by DOE. The DOE indemnity was cited as the authority for payment of the settlement.

The second lawsuit, *Day v. NLO, Inc.*,[33] was filed in 1990 by workers and frequent visitors of the FMPC facility. Some of the plaintiffs' claims were dismissed because workers compensation provided the exclusive remedy for these claims. The court concluded that its jurisdiction to hear this case stemmed from the Price-Anderson Act and that the Act was the source of all of the plaintiff's claims. DOE eventually paid $20 million to settle this lawsuit.

The elimination of the DOE indemnification would not necessarily eliminate the costs associated with claims resulting from a nuclear incident in connection with a DOE activity. DOE generally self-insures against non-nuclear risks and reimburses its contractors for property damage and third party liability claims resulting from such risks except in cases of willful misconduct, lack of good faith, or failure to exercise prudent business judgment on the part of contractor management. In the absence of the DOE

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[32] *In re Fernald Litigation*, No. C-1-85-149 (S.D. Ohio Sept. 29, 1989) (opinion and order approving settlement and denying objections).

[33] *Day v. NLO, Inc.*, (No. C-1-90-67) (S.D. Ohio Dec. 22, 1994) (opinion and order approving settlement and denying objections).

indemnification, DOE could be expected to reimburse its contractors for claims resulting from nuclear risks in much the same way as it currently reimburses claims resulting from non-nuclear risks.

2. Private insurance is expensive and most likely is not available for many DOE activities.

The American Nuclear Insurers (ANI), a private insurance company, is currently the sole source of nuclear hazards insurance. In response to a query in connection with the Notice of Inquiry, ANI stated that it is "not in a position to guarantee that coverage would actually be written" for a DOE nuclear facility and 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." ANI added that it would be much easier "to write nuclear liability insurance for new DOE facilities than for existing facilities" because ANI would have obvious concerns about picking up liability for old exposures which may well preclude insurability for facilities which have, in some cases, operated for decades.[34]

Moreover, ANI indicated any insurance policy would exclude on-site cleanup costs; environmental cleanup; property damage at the insured facility; and bodily injury or property damage due to manufacturing, handling or use of any nuclear weapon or other instrument of war. Radiation tort claims by workers also would be excluded but might be covered under a separate industry-wide policy issued by ANI subject to a shared industry-wide limit of $200 million.

Furthermore, even if private insurance were available, the amount would be limited and the cost would be astronomically high. ANI stated that would consider writing nuclear liability insurance at DOE facilities at limits up to $200 million--the maximum liability limit that it is current able to write at any one facility. For this insurance, it would charge DOE contractors a premium from $500,000 to $2 million annually. ANI indicated it would base premiums "upon such factors as: type of facility insured, nature of the activities performed, type and quantities of nuclear material handled, location of the facility, qualifications of site management, quality of safety-related programs and operating history."

Under its current contracting practices, DOE would treat such premiums as allowable costs and would thereby have to reimburse hundreds of contractors and subcontractors for insurance costs. The premiums would likely cost the Department between $30 million and $120 million per year for prime contractors (approximately 60 prime contractors times $500,000 to $2 million each). Subcontractor insurance premiums would also be passed through to the government. Reimbursement of these premiums would secure insurance coverage equal to only approximately 2% of the DOE indemnity of $9.43 billion.

D. No satisfactory alternatives to DOE indemnification are available.

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[34]Appendix C reproduces the statement from ANI.

There are no satisfactory alternatives to the DOE indemnification. In a few cases, DOE has used statutory authority under Public Law 85-804[35] or under § 162 of the Atomic Energy Act[36] to indemnify certain DOE activities that involve the risk of a nuclear incident. These alternative statutory indemnities, however, are cumbersome to administer; do not guarantee omnibus coverage of subcontractors, suppliers and other persons; and lack the procedural mechanisms that ensure prompt and equitable compensation for the public.

Recommendation 2. The amount of the DOE indemnification should not be decreased.

The DOE indemnification guarantees the availability of $9.43 billion to compensate injury and damage resulting from a nuclear incident in connection with a DOE activity. This amount provides members of the public with a high degree of confidence that they will be protected in the event of a nuclear incident. Any reduction in this amount would be perceived as a lessening of the commitment to provide prompt and equitable compensation in the event of a nuclear incident.

A. The current amount of the DOE indemnification is appropriate.

DOE believes the current amount of the DOE indemnification is appropriate. While most DOE activities do not involve the risk of a nuclear incident with the potential for substantial damage, some DOE activities are perceived to be high risk with the potential for catastrophic damage. $9.43 billion is a sufficiently high amount to support public confidence in the commitment in the Price-Anderson Act to provide prompt and equitable compensation even if there is a nuclear incident with catastrophic damage.

The amount of $9.43 billion reflects a threshold level beyond which Congress would review the need for additional payment of claims in the case of a nuclear incident with catastrophic damage. In the unlikely event that the damage from a nuclear incident were to exceed $9.43 billion, the Price-Anderson Act contains a Congressional commitment to thoroughly review the particular incident and

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[35]The National Defense Contracts Act, 50 U.S.C. §§ 1431-5 (1994 & Supp. II 1996). This law authorizes the President and delegated federal agencies, including DOE, to indemnify contractors for damage and loss claims arising from unusually hazardous or nuclear risks related to national defense activities. *See* Exec. Order No. 10,789, reprinted in 3 C.F.R. 426 (1954-1958).

[36]42 U.S.C. § 2202 (1994) (AEA § 162 provides that the President of the United States "may, in advance, exempt any specific action of the Commission [now DOE] in a particular matter from the provisions of law relating to contracts whenever he determines that such action is essential in the interest of the common defense and security.").

take whatever action is determined necessary to provide full and prompt compensation to the public.[37] In support of this commitment, the Price-Anderson Act requires the President to submit a plan for full and prompt compensation for all valid claims to Congress not later than 90 days after a determination by a court that damage may exceed the DOE indemnification.[38]

B. The amount of the DOE indemnification should not decrease even if there is a decrease in the amount of financial protection provided under the NRC Price-Anderson system.

The amount of the DOE indemnification is based on the financial protection available in the event of a nuclear incident at a commercial nuclear power plant licensed by NRC.[39] The Price-Anderson Act, however, provides that the amount of DOE indemnification does not decrease if there is a decrease in the amount of financial protection available in the event of a nuclear incident at a commercial nuclear power plant. In other words, the amount of the DOE indemnification would remain constant at $9.43 billion even if the amount of financial protection provided under the NRC Price-Anderson system were to decrease because of a decrease in the number of operating commercial nuclear power plants.

DOE believes the amount of the DOE indemnification should not decrease. Therefore, DOE supports continuation of the prohibition against any downward adjustment of the amount of the DOE indemnification. The level of assurance that the DOE indemnification provides the public should not decrease just because there may be fewer operating commercial nuclear power plants in the future.

DOE also believes it is important to provide members of the public with a high degree of confidence that prompt and equitable compensation will be available in the event of a nuclear incident at a commercial nuclear power plant. Accordingly, consideration should be given as to how that objective can best be achieved in light of the anticipated decommissioning of a significant number of commercial nuclear power plants in the near future.

Recommendation 3. The DOE indemnification should continue to provide broad and mandatory coverage of activities conducted under contract for DOE.

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[37]AEA § 170.i.(1).

[38]AEA § 170.i.(2).

[39]The financial protection for commercial nuclear power plants is a combination of the amount of private insurance available for a nuclear incident at a power plant ($200 million) and the amount of the industry insurance pool created by the imposition of retrospective deferred premiums on each nuclear power plant in the event of a nuclear incident ($83.9 million x 110 currently operating power plants equals $9.23 billion) for a total of $9.43 billion. *See* NRC Adjustment of the Maximum Standard Deferred Premium, 63 Fed. Reg. 39,015 (July 21, 1998) (to be codified at 10 C.F.R. Part 140).

The DOE indemnification should continue to provide broad and mandatory coverage of contractual activities conducted for DOE. The protection afforded by the DOE indemnification should not be dependent on factors such as whether an activity (1) involves the risk of a substantial nuclear incident, (2) takes place under a procurement contract, or (3) is undertaken by a DOE contractor pursuant to a license from the Nuclear Regulatory Commission. Limitations based on such factors would likely be cumbersome to administer and not achieve any significant cost savings.

A. The 1988 Amendments made the DOE indemnification mandatory for all activities under a contract for DOE that involved the risk of any nuclear incident in the United States.

Prior to the enactment of the1988 Amendments, DOE had discretion to enter into agreements of indemnification with its contractors whose activities involved the risk of public liability for a "substantial" nuclear incident. DOE exercised this discretion by reviewing the potential activities under a proposed contract and then making a determination whether there existed a risk of damage to persons or property of $60 million or more due to the nuclear hazard.[40] If DOE made an affirmative determination, it included the DOE indemnification in the contract. Subcontractors received a representation that DOE agreed to indemnify the prime contractor and other persons indemnified including the subcontractor. Thus, prior to the enactment of the 1988 Amendments, inclusion of the DOE indemnification was a matter of contract negotiation and required an explicit provision in the contract between DOE and its contractors.

The 1988 Amendments revised the Price-Anderson Act to state that DOE "shall . . . enter into agreements of indemnification under this subsection with any person who may conduct activities under a contract with the Department of Energy that involve the risk of public liability." It also eliminated the limitation that the DOE indemnification could be included only in contracts that involved a risk of a "substantial nuclear incident." According to the legislative history accompanying the 1988 Amendments, the Senate Energy Committee "felt that the protection afforded the public by the Price-Anderson Act is important enough to justify removing the Secretary's discretion," and further stated that requiring indemnification to be mandatory "will guarantee to the public that the Price-Anderson system will be available to provide compensation in the event of a nuclear incident."[41]

Consistent with this statutory mandate, DOE includes a nuclear hazards indemnification clause in all contracts that involve any risk of a nuclear incident. Such a contractual provision, however, is not a condition precedent under the Price-Anderson Act. The 1988 Amendments quite clearly charge DOE

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[40]DOE Procurement Regulation, 41 C.F.R. § 9-10.5005(b), § 9-50.704-6 (1983), (re-codified as 48 C.F.R. Parts 950, 952, 970, 49 Fed. Reg. 12,039 (1984)), 50 Fed. Reg. 12,185 (amended 1985); 56 Fed. Reg. 57,827 (amended Nov. 14, 1991) (Department of Energy Acquisition Regulation (DEAR)).

[41]S. Rep. No. 100-70, 100th Cong., 2d Sess., *reprinted* 1988 U.S. Code Cong. & Admin. News, 1424, 1432.

with providing indemnification to any person who may conduct activities under a contract with DOE that involves the risk of a nuclear incident.[42]

B. The DOE indemnification should continue to be mandatory and provide broad coverage of DOE nuclear activities.

The DOE indemnification should continue to be mandatory in order to guarantee to the public that indemnification will be available to provide compensation in the event of any nuclear incident resulting from any DOE activity. DOE believes a return to the discretionary indemnification system that existed prior to the 1988 Amendments would not be in the best interests of the government or the public. Making indemnification discretionary would again result in DOE being required to make a case-by-case decision as to whether the activity in a particular contract was appropriate for indemnification. Such a process would create uncertainty as to whether a particular DOE activity would be covered.

The DOE indemnification should continue to cover all DOE contractual activity that might result in a nuclear incident in the United States. This broad coverage assures the public that prompt and equitable compensation would be available anytime a nuclear incident were to occur in connection with a DOE activity, no matter how unlikely such an incident might be. DOE recognizes that most of its activities do not involve the risk of a "substantial" nuclear incident and that many of these activities would not be covered by the NRC Price-Anderson system of financial protection if they were conducted by NRC licensees for entities other than DOE. DOE believes, however, that the DOE indemnification should not be restricted to activities that involve a risk of a substantial nuclear incident but should cover all activities conducted for DOE. DOE agrees with the Congressional judgment in the 1988 Amendments that the DOE indemnification should serve as a guarantee to the public of prompt and equitable compensation in the event of any nuclear incident in connection with any DOE activity.

C. The DOE indemnification covers all contractual activities conducted for DOE that might result in a nuclear incident in the United States.

The DOE indemnification covers all contractual activities conducted for DOE with the potential to cause a nuclear incident. The one exception is that the DOE indemnification of a nuclear incident outside the United States is subject to the restriction that the incident must involve nuclear material owned by the United States.

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[42]Nuclear Hazards Indemnity Clauses, 48 C.F.R. Parts 950, 952, 970 (1998), 55 Fed. Reg. 33,730 (proposed Aug. 17, 1990), 56 Fed. Reg. 57,824 (final Nov. 14, 1991).

The DOE indemnification is not limited to procurement contracts.[43] Rather, it covers any arrangement that is contractual in nature and that DOE uses to secure a direct benefit for its account in furtherance of its missions. While procurement contracts are the primary vehicle by which DOE secures goods and services, it also conducts business through other arrangements such as leases. Whether a particular arrangement or portion thereof is contractual in nature and provides a direct benefit to DOE is a factual determination.

In recent years, there has been an increase in the use of arrangements other than procurement contracts to achieve DOE's objectives. For example, DOE has engaged in efforts to reindustrialize and re-use site assets (e.g., facilities, equipment, materials, utilities, and trained workforces) through the leasing of facilities no longer used for DOE activities to groups that will use them for research and development, and industrial and commercial purposes. The primary purpose of these reindustrialization efforts is to encourage the development of non-DOE activities. In many instances, however, these efforts also result in a direct benefit to DOE such as when a lessee or sublessee agrees to perform cleanup services for DOE in exchange for a reduced lease rate. DOE considers these arrangements to be contracts covered by the DOE indemnity to the extent they result in the direct provision of goods or services for the account of DOE. The fact that the work is not being performed pursuant to a traditional procurement contract does not change the fact that the work to be performed is for the account of DOE and that DOE receives a direct benefit.

The DOE indemnification does not cover commercial activities that are not for the account of DOE, even if such activities take place on DOE property under a lease or other arrangement with DOE. Commercial activity on DOE property, however, may take place in proximity to nuclear material that is a legacy from prior contractual activity conducted for DOE. If a nuclear incident results from such legacy material, then the commercial activity would be included within the omnibus coverage of the DOE indemnification that related to the contractual activity that resulted in the legacy material. In cases of commercial activity in proximity to legacy material, DOE believes there would be a general presumption that any nuclear incident resulted from the legacy material.

Prior to 1988, DOE primarily used cost-reimbursement contracts as the vehicle under which activities were performed for its account. Since 1988, DOE has attempted to achieve cost savings and management efficiencies by privatizing its arrangements with its contractors. In general, privatized arrangements are closer to contracts in the private sector than the traditional management and operating (M&O) contracts used by DOE and its predecessors since the Manhattan Project in the 1940s. Unlike M&O contracts, privatized arrangements have elements of a fixed-price contract and make a contractor subject to some financial risk if it does not perform as expected. Such privatized arrangements can include contracts under which activity is conducted off-site, contracts under which

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[43]Using Procurement Contracts and Grants and Cooperative Agreements, 31 U.S.C. §§ 6301-6305 (1994 & Supp. II 1996).

activity is conducted at the contractor's facility located on-site, or contracts under which a contractor performs the same activity for DOE as it does for commercial entities and on the same terms.[44]

The DOE indemnification is not restricted to cost-reimbursement contracts and can cover fixed-price contracts. In fact, the DOE indemnification is essential to DOE's efforts to make its contracting practices more akin to those in the private sector by placing some of the financial risk of performance on the party providing goods and services in a manner typical of most commercial arrangements . While potential contractors may be willing to accept more of the financial risk associated with their performance under a contract with DOE, they are not willing to accept the financial risk associated with a nuclear incident.

The DOE indemnification does not apply to an activity conducted for DOE that is undertaken by a contractor pursuant to an NRC license if the activity is covered by the NRC system of financial protection under the Price-Anderson Act. If, however, the NRC system of financial protection does not cover the activity, then the DOE indemnification covers it. The Price-Anderson Act only requires NRC to establish a system of financial protection with respect to reactors. For non-reactor licensees, the Price-Anderson Act grants NRC discretionary authority whether or not to adopt a system of financial protection. The NRC has not exercised this discretionary authority with respect to any NRC-licensed non-reactor facility currently in operation. Thus, as a practical matter, the DOE indemnification covers any DOE contractual activity likely to be licensed by NRC that is not associated with a reactor.

D. Broad and mandatory coverage encourages public acceptance of DOE activities.

Broad and mandatory coverage of the DOE indemnification is essential to public acceptance of many DOE activities. The comments in response to the Notice of Inquiry indicated particular concerns with activities relating to a repository for civilian nuclear spent fuel, transportation of nuclear material, and the clean-up of DOE sites.

1. The DOE indemnification covers DOE activities relating to a repository for civilian nuclear spent fuel.

The 1988 Amendments make clear that the Nuclear Waste Fund would be the source of the DOE indemnification with respect to any nuclear incident relating to the transportation, storage, disposal or other activities involving a repository for civilian spent fuel to the extent such activities were funded by the Waste Fund. In all other aspects, the DOE indemnity would operate exactly the same as it does with respect to other DOE activities that involve the risk of a nuclear incident. DOE believes there should be no change in the coverage by the DOE indemnification of all activities funded by the Nuclear Waste Fund.

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[44]*See* DOE/S-0120, *Harnessing the Market: The Opportunities and Challenges of Privatization,* January 1997.

2. The DOE indemnification covers DOE activities involving transportation of nuclear material.

The DOE indemnification covers any nuclear incident in the United States during transportation of nuclear material in connection with a DOE activity. In addition, if there is an accident during transportation but no nuclear incident, the DOE indemnification would cover any precautionary evacuation that is ordered by an authorized state or local official.

The DOE indemnification is vital to public acceptance of transportation of nuclear material in connection with DOE activities. The DOE indemnification should continue to broadly cover all transportation in connection with a DOE activity, including transportation to and from DOE facilities. It should also continue to cover precautionary evacuations ordered by an authorized state or local official.

3. The DOE indemnification covers DOE activities involving clean-up of a DOE site.

The DOE indemnification would apply to a nuclear incident arising from any DOE cleanup activity, including decontamination and decommissioning involving nuclear material. Some cleanup activity may involve primarily mixed waste (that is, a combination of nuclear material and of hazardous non-nuclear material) and to the extent the nuclear material component results in a nuclear incident, the DOE indemnification would apply.[45] As with all claims under the Price-Anderson Act, however, liability for nuclear incidents resulting from cleanup activity is limited by the statutory definitions of "nuclear incident" and "public liability."[46]

Recommendation 4. DOE should continue to have authority to impose civil penalties for violations of nuclear safety requirements by for-profit contractors, subcontractors and suppliers.

DOE's authority to impose civil penalties has proven to be a valuable tool for increasing the emphasis on nuclear safety and enhancing the accountability of DOE contractors. DOE supports continuation of this authority to impose civil penalties on its for-profit indemnified contractors, subcontractors, and suppliers.

A. The authority to impose civil penalties has proven to be a valuable tool.

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[45]*See* 56 Fed. Reg. at 57,825-26 (preamble to final rule for Nuclear Hazards Indemnity Agreement).

[46]AEA §§ 11.q. & 11.w.

During the debates preceding the1988 Amendments, there was considerable discussion concerning proposals to make DOE contractors more accountable for their actions by not indemnifying a contractor to the extent a nuclear incident resulted from its gross negligence or willful misconduct. These proposals raised serious questions concerning their potential effect on DOE's ability to secure contractors to assist in the performance of its missions and on the assurance of prompt and equitable compensation in the event of a nuclear incident. The 1988 Amendments did not include any of these proposed changes in the DOE indemnification. Rather, as an alternative, Congress granted DOE authority to impose civil penalties on its indemnified contractors for violations of nuclear safety requirements.[47]

DOE's experience since the enactment of the 1988 Amendments has confirmed the Congressional judgment that civil penalty authority is a preferable alternative to possible changes in the DOE indemnification. The authority to impose civil penalties has proven to be a valuable tool for increasing the emphasis on nuclear safety in connection with DOE activities that involve the risk of a nuclear incident. This authority has served as a catalyst both for identifying appropriate nuclear safety requirements and for enhancing contractors' responsibility and accountability for complying with these requirements.

B. Most nonprofit DOE contractors currently are not subject to the imposition of civil penalties.

In the 1988 Amendments, Congress exempted from civil penalties seven DOE nonprofit contractors by name in the statute along with their for-profit and nonprofit subcontractors and suppliers. The seven contractors are: (1) the University of Chicago for activities associated with Argonne National Laboratory; (2) the University of California for activities associated with Los Alamos National Laboratory, Lawrence Livermore National Laboratory and Lawrence Berkeley National Laboratory; (3) American Telephone and Telegraph Company and its subsidiaries for activities associated with Sandia National Laboratory; (4) Universities Research Association, Inc. for activities associated with FERMI National Laboratory; (5) Princeton University for activities associated with Princeton Plasma Physics Laboratory; (6) the Associated Universities, Inc. for activities associated with Brookhaven National Laboratory; and (7) Battelle Memorial Institute for activities associated with Pacific Northwest Laboratory.

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[47]The 1988 Amendments authorized DOE to impose a maximum civil penalty of $100,000 per violation per day on any contractor, subcontractor or supplier covered by the DOE Price-Anderson indemnification who violates a nuclear safety requirement. Each violation and each day of a violation constitutes a separate violation. The amount has been adjusted for inflation and is now $110,000 per violation per day. See 10 C.F.R. § 820.80 (1998), 62 Fed. Reg. 46,181 (final Sept. 2, 1997) (implementing the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note, as amended by the Debt Collection Improvement Act of 1996 (Pub. L. No. 104-134)).

Only five of the seven remain DOE contractors: Sandia National Laboratory is now operated by Lockheed-Martin, who (along with its subcontractors and suppliers) is subject to civil penalties. The new contractor for the Brookhaven National Laboratory is Brookhaven Science Associates (BSA), a nonprofit limited liability company jointly owned by two nonprofit organizations, who (along with its subcontractors and suppliers) is subject to civil penalties.

In addition to the statutory exemption, the 1988 amendments required DOE to determine by rule whether nonprofit educational institutions should receive automatic remission of any civil penalty. In the rulemaking that adopted the procedural rules for implementing the civil penalty authority, DOE determined that all nonprofit educational institutions should receive an automatic remission of civil penalties based on the view that all nonprofit educational institutions should be treated in a similar manner.[48] Under this rule, the new contractor for the Brookhaven National Laboratory is subject to civil penalties because it is not named as an exempt institution in the statute and it is not an educational institution eligible for automatic remission of civil penalties.

All subcontractors and suppliers, whether for-profit or nonprofit, to the five-remaining named contractors are statutorily exempt from civil penalties. In all other situations, however, only those subcontractors and suppliers that are nonprofit educational institutions receive automatic remission of civil penalties.

C. Nonprofit DOE contractors should continue to be exempt from the imposition of civil penalties.

DOE supports continuation of the Congressional decision in the 1988 Amendments not to apply civil penalties to nonprofit contractors. This decision reflects the fact that major universities and other nonprofits would be unwilling to put their educational endowments at risk for contract-related expenses such as civil penalties. If nonprofit contractors were subject to civil penalties, there is a strong possibility that DOE would have to increase the fees it pays to its nonprofit contractors to compensate for the additional risk that civil penalties could be assessed. Thus, making nonprofit contractors subject to civil penalties could have the undesirable consequence of diverting funds away from DOE research without creating a real financial incentive for safety.

DOE believes contractual provisions are a better mechanism than civil penalties for making nonprofit contractors more accountable for safety. Such provisions include fee reduction or elimination, stop work orders, and contract termination. As discussed previously, since the enactment of the 1988 Amendments, DOE has moved towards performance-based contracting and integrated safety management for all of its contractors including nonprofit contractors. A major tenet of these reforms is that work must be performed safely and that a contractor will be held accountable if it is not. All DOE

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[48] 42 U.S.C. § 2282a(b)(2) (1994); 10 C.F.R.§ 820.20(d) (1998), 58 Fed. Reg. at 63,680.

contracts now must include provisions on integrated safety management and identify the environment, health, and safety requirements applicable to activities under the contract.

Continuation of the current treatment of nonprofit DOE contractors is consistent with NRC's treatment of its nonprofit licensees. NRC recognizes that nonprofit entities have limited financial resources for paying civil penalties and thus imposes relatively low civil penalties on these entities ($5,500 per violation per day).[49] These relatively low amounts primarily serve the purpose of publicizing lapses in safety at NRC nonprofit licensees. DOE has achieved this same objective with its nonprofit contractors by issuing notices of violations under its procedural regulations. Moreover, unlike NRC and its licensees, there is a contractual relationship between DOE and its contractors. This contractual relationship gives DOE an ability to affect the behavior of its nonprofit contractors through financial incentives and disincentives through means not available to NRC.

D. Consideration should be given to a generic exemption for all nonprofit DOE contractors, nonprofit subcontractors and nonprofit suppliers.

DOE believes all nonprofit contractors, nonprofit subcontractors and nonprofit suppliers should be treated the same with respect to the applicability of civil penalties. Accordingly, consideration should be given to eliminating the statutory exemption for specific named contractors and their subcontractors and suppliers and replacing it with a generic exemption to cover all nonprofit contractors, nonprofit subcontractors and nonprofit suppliers. This change would eliminate the need to identify particular entities by name in the statute and also eliminate the distinction between "educational" nonprofits and other nonprofit entities.

As part of such a change, the exemption of for-profit subcontractors and suppliers to nonprofit contractors exempt by statute should be eliminated. Our experience indicates no such exemption is warranted because civil penalties currently apply to the for-profit subcontractors and suppliers of educational nonprofits that are covered by the automatic remission and this has worked well.

Recommendation 5. The Convention on Supplementary Compensation for Nuclear Damage should be ratified and conforming amendments to the Price-Anderson Act should be adopted.

On September 29,1997, the United States became the first country to sign the Convention on Supplementary Compensation for Nuclear Damage (Compensation Convention), which is intended to

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[49]General Statement of Policy and Procedure for NRC Enforcement Actions (NUREG-1600, Rev. 1) (Table 1A–Civil penalties of $5,500 applies to research reactors, academic, medical, and other small material users including nonprofit institutions not otherwise categorized, mobile nuclear services, nuclear pharmacies, and physician offices). *See* http://www.nrc.gov/OE.

establish a global regime for dealing with legal liability and compensation in the event of a nuclear incident. Ratification of the Compensation Convention will require conforming amendments to the Price-Anderson Act. These conforming amendments will not result in any significant changes in the Price-Anderson Act

A. The Compensation Convention should be ratified.

Ratification of the Compensation Convention would promote the national interests of the United States by extending the objectives of the Price-Anderson Act outside the United States. Like the Price-Anderson Act, the Compensation Convention seeks to achieve a proper balance between the interests of the nuclear industry and of the public. It will create an international legal framework that permits United States firms to pursue commercial opportunities by assisting in the development of safe nuclear facilities throughout the world. At the same time, it will assure prompt and equitable compensation in the event of a nuclear incident outside the United States.

B. Ratification of the Compensation Convention would require conforming amendments to the Price-Anderson Act but no significant changes.

The United States has been unable to ratify prior treaties on nuclear liability (the 1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy and the 1963 Vienna Convention on Civil Liability for Nuclear Damage) because these treaties would require fundamental changes in the Price-Anderson Act, such as preempting state tort law to impose strict and exclusive liability on the operator of a nuclear facility. Accordingly, the United States made compatibility with the Price-Anderson Act a major objective during the negotiation of the Compensation Convention and was successful in securing the inclusion of a "Grandfather Clause" that will permit the United States to ratify the Compensation Convention without any significant changes in the Price-Anderson Act.

The Grandfather Clause in the Compensation Convention provides that the national law of the United States (that is, the Price-Anderson Act) is deemed to satisfy the provision of the Compensation Convention relating to the liability of the operator if three conditions are met with respect to certain specified nuclear facilities. The specified facilities are civil nuclear reactors and civil facilities for processing, reprocessing or storing spent fuel or radioactive waste resulting from reprocessing spent fuel or containing significant amounts of transuranic elements. The three conditions are: (1) strict liability applies in the event a nuclear incident causes substantial off-site damage; (2) all persons other than the operator are indemnified for any legal liability they might incur; and (3) at least 1 billion Special Drawing Rights (SDR's)[50] is available to compensate nuclear damage resulting from a nuclear incident at a commercial power plant and at least 300 million SDR's is available to compensate nuclear damage

[50]One SDR equals approximately $1.3.

resulting from a nuclear incident at any other specified facility. The Price-Anderson Act already satisfies these conditions.

With respect to the DOE indemnification, the only change would be the amount of the indemnification with respect to a nuclear incident outside the United States.[51] The current amount is $100 million. The Compensation Convention, however, requires that at least 300 million SDR's be available to compensate damage from a nuclear incident. Thus, it will be necessary to increase the amount of the DOE indemnification for a nuclear incident outside the United States to around $500 million.

C. Consideration should be given to changes in geographical definitions such as the United States, states and territorial sea.

Ratification of the Compensation Convention would not require any conforming amendment with respect to the geographic definitions used in connection with the Price-Anderson Act. During the negotiation of the Compensation Convention, however, several questions arose as to the operation of the Price-Anderson Act with respect to a nuclear incident during maritime transport of nuclear material.

The Price-Anderson Act defines the United States to include "all Territories and possessions of the United States, the Canal Zone and Puerto Rico."[52] This definition includes the territorial sea. In 1989, the President extended the territorial sea of the United States to 12 nautical miles in breadth.[53] State boundaries generally remained at three miles, as they are defined under the Submerged Lands Act.[54] This situation raises an issue concerning the operation of the Price-Anderson Act. Specifically, since state tort law may only apply to incidents that occur within state boundaries, there could be an issue as to what law applies to nuclear incidents that take place beyond the boundaries of states in the territorial sea. Consideration should be given to clarifying this issue.

The exclusive economic zone ("EEZ") is not included within the definition of the United States for purpose of the Price-Anderson Act and therefore a nuclear incident in the United States EEZ is considered a nuclear incident outside the United States. Thus, the Price-Anderson Act covers nuclear incidents in the United States EEZ only to the extent it covers a nuclear incident outside the United States (that is , a nuclear incident involving transportation between two NRC licensees or transportation

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[51]The DOE indemnification only covers a nuclear incident outside the United States if it results from contractual activity for the account of DOE that involves nuclear material owned by the United States.

[52]AEA § 11.bb.

[53]Presidential Proclamation No. 5928, 3 C.F.R. § 547 (1988 Comp.), note following 43 U.S.C. § 1331 (1994).

[54]Submerged Lands Act, 43 U.S.C. §§ 1301(a)(2), 1311(a) (1988).

by a DOE contractor of nuclear material owned by the United States Government). A nuclear incident in the United States EEZ could result in substantial damage to resources located there as well as damage in the United States. Accordingly, consideration should be given to including the United States EEZ within the definition of the United States for purposes of the Price-Anderson Act.

APPENDICES

Appendix A — Notice of Inquiry: Preparation of Report to Congress on Price-Anderson Act, 62 Federal Register 68,272 (December 31, 1997)

Appendix B — Atomic Energy Act of 1954, as amended; 42 United States Code §§ 2210 et seq. (1994)

- § 2014 (AEA § 11) Definitions
- § 2210 (AEA §170) Indemnification and Limitation of Liability
- § 2282a (AEA § 234A) Civil Monetary Penalties for Violations of Department of Energy Regulations

Appendix C — Letter from John L. Quattrocchi, Senior Vice President, Underwriting, American Nuclear Insurers to Omer F. Brown, II, Harmon & Wilmot, L.L.P, January 21, 1998 (Attachment B to Comments filed by Energy Contractor Price-Anderson Group)

Documents On DOE Office of General Counsel Home Page

www.gc.doe.gov

1. Membership List of DOE Price-Anderson Act Task Force

2. Charter of DOE Price-Anderson Act Task Force, September 24, 1997.

3. Log of names and addresses of public filing comments on Notice of Inquiry.

4. Seven subjects summary of comments to Notice of Inquiry.

5. Question-by-question summary to Notice of Inquiry.

6. Convention on Compensation for Nuclear Damage (signed by the United States on September 29,1997).

7. Ben McRae, *The Compensation Convention: Path to a Global Regime for Dealing with Legal Liability and Compensation for Nuclear Damage*, 61 Nuclear Law Bulletin 25 (June 1998) (Nuclear Energy Agency).

Documents on home page or linked to Federal Register and Code of Federal Regulations:

8. 55 Fed. Reg. 33,730 (Aug. 17, 1990) (notice of proposed rulemaking) (Department of Energy Acquisition Regulation (DEAR)) (codified at 48 C.F.R. 950, 952, 970 (Nuclear Hazards Indemnity Clause).

9. 56 Fed. Reg. 57,824 (Nov. 14, 1991) (final rule) (Department of Energy Acquisition Regulation (DEAR)) (notice of proposed rulemaking) (codified at 48 C.F.R. 950, 952, 970 (Nuclear Hazards Indemnity Clause).

10. 61 Fed. Reg. 32,588 (June 24, 1996) (notice of proposed rulemaking) (Department of Energy Acquisition Regulation (DEAR)) (codified at 48 C.F.R. Parts, 917, 950, 952, 970) (contract reform "mega rule").

11. 62 Fed. Reg. 34,842 (June 27, 1997) (final rule) (Department of Energy Acquisition Regulation (DEAR)) (codified at 48 C.F.R. Parts 901, 917, 926, 90, 952, 970) (contract reform "mega rule").

12. 62 Fed. Reg. 17,800 (April 10, 1998) (notice of proposed rulemaking) (Department of Energy Acquisition Regulation (DEAR)) (to be codified at 48 C.F.R. Parts 970) (conditional fee policy), 64 Fed. Reg. 12,219 (final March 11, 1999).

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