

Legal Alert:

Congress Supports the Nuclear Power Renaissance

August 23, 2005

On August 8, 2005, President Bush signed into law the Domenici-Barton Energy Policy Act of 2005 (“the Act”). The Act contains an array of provisions that support nuclear power, including tax credits, federal risk insurance, and loan guarantees. Combined with the impressive financial performance of the U.S. nuclear fleet and the growing public recognition that nuclear plants generate electricity without contributing to global warming, the Act creates a favorable environment for building new nuclear powerplants. This Legal Alert discusses the key nuclear provisions of the Act.

Price-Anderson Renewal (Title VI, Subtitle A)

The Act extends the Price-Anderson Act, which provides the basic liability protection for the U.S. nuclear industry, for 20 years, until 2025. Accordingly, the Act maintains the existing regime of no-fault insurance coverage for the public in the event of a nuclear reactor incident and sets new thresholds for private insurance coverage nuclear plant operators are required to purchase.

Standby Support for New Plant Delays (Title VI, Section 638)

The Act protects new plant investment by authorizing standby support to offset the financial impact of delays beyond the industry’s control that may arise during construction and the initial phases of starting up a new nuclear powerplant. Support is available for the first six new nuclear reactors and covers 100% of the cost of delays for the first two plants, up to a ceiling of \$500 million per plant, and 50% of the cost of delays, up to a ceiling of \$250 million per plant, for plants three through six.

Standby support covers delays in the commencement of full operation caused by the NRC’s failure to comply with the schedule for inspection, tests, analysis, and acceptance criteria or for preoperational hearings. It also protects against delay caused by litigation. The covered

costs include any principal or interest on debt associated with the project, as well as losses incurred if start-up delay forces the owner of a new plant to buy power on the open market in order to meet contractual electricity supply agreements.

Loan Guarantees for New Plants (Title XVII)

Under the Act, the Secretary of Energy is authorized to provide a loan guarantee of up to 80% of the project cost for innovative energy technologies that reduce the emission of greenhouse gases. Advanced nuclear energy facilities are among the type of projects eligible for such guarantees. The Act establishes a loan guarantee fund and creates two alternatives to finance the cost of guarantees: (1) the project developer can pay the cost of the loan guarantee into the Fund, or (2) the Secretary of Energy can request an appropriation of an amount equal to the cost of the loan guarantee and the project developer is obligated to pay that amount back over time.

Production Tax Credits (Title XIII, Section 1306)

The Act makes available production tax credits of 1.8 cents per kilowatt-hour of electricity generated from qualifying advanced nuclear power facilities during their first 8 years of operation. Qualifying facilities are those that receive an allocation of megawatt capacity from the Secretary of Energy and are placed into service before 2021; a facility for which a substantially similar design was approved prior to 1994 is not considered a qualifying advanced nuclear power facility for these purposes.

Two limitations restrict the aggregate amount of tax credits that may be claimed in any year. The first limitation is based on “allocated capacity.” Production tax credits may only be claimed for the production of electricity equal to the ratio of the allocated capacity the facility is assigned by the Secretary of Energy to the rated nameplate capacity of that facility. Thus, if a taxpayer’s facility was allocated 750 megawatts (of the 6,000 megawatts available for allocation by the Secretary) and the facility has a rated nameplate capacity of 1,000 megawatts, then only three-quarters of the allowable credit, or 1.35 cents per kilowatt hour, may be claimed for electricity produced at the facility.

The available tax credits are also subject to a second, annual limitation. The annual tax credit limit for the operation of a qualifying advanced nuclear power facility is \$125 million per 1,000 megawatts of allocated capacity in any one year of the eight-year period. Therefore, if a facility has a nameplate rated capacity of 1,000 megawatts and was assigned 750 megawatts of allocated capacity from the Secretary, both the annual and allocated capacity limitations apply such that the taxpayer may claim credits equal to 1.35 cents per kilowatt hour of electricity produced, subject to an annual credit limitation of \$93.75 million (or $\frac{3}{4}$ of \$125 million). The

tax credits are treated as part of the general business credit and may be reduced if other forms of government aid are received.

Decommissioning Fund Reform (Title XIII, Section 1310)

The Act repeals the “cost of service” requirement for deductible contributions to a qualified nuclear decommissioning fund contained in section 468A of the Internal Revenue Code. The Act also permits a taxpayer maintaining a qualified fund to accumulate therein an amount sufficient to cover the present value of 100% of the powerplant’s estimated decommissioning costs. However, contributions to the fund would not be deductible more rapidly than level funding (ratably over the estimated useful life of the powerplant).

Additionally, the Act requires that a taxpayer apply for a new ruling amount (that is, the amount that the IRS determines to be necessary to fund the powerplant's decommissioning costs) in any tax year in which the facility is granted a license renewal that extends its useful life.

Nuclear Facility and Materials Security (Title VI, Section 651)

The Nuclear Regulatory Commission proposed three additional security measures that were adopted in the Act. They are (1) a requirement that the NRC initiate a rulemaking proceeding on its “design basis threat,” the range of threats against which nuclear plant security personnel must defend; (2) a requirement for periodic “force on force” exercises by the NRC at nuclear powerplants and fuel cycle facilities that handle enriched uranium to aid in strengthening the protection of such facilities from intruders; and (3) a directive that the NRC assign an employee as the “Federal security coordinator” in each of the Commission’s regions. The Federal security coordinator in each region will communicate with the Commission and federal, state, and local governments regarding threats to facilities and will monitor select facilities. The Act also contains language modifying existing law governing the handling, importation, and export of radiation sources and the treatment of radioactive byproduct material.

Nuclear Research and Development Support (Title IX, Subtitle E)

The Act requires the Secretary of Energy to pursue a Nuclear Energy Research Initiative and creates a Nuclear Energy Systems Support Program to support research and development activities addressing such issues as the reliability, productivity, safety, and security of existing nuclear powerplants. In addition, the Act authorizes funding for the Energy Department's Nuclear Power 2010 program and provides for cost sharing programs to encourage the construction of new nuclear plants. The Act directs the Secretary to pursue a Generation IV Nuclear Energy System Initiative to develop a technology plan and support research and development on the most promising new reactor design candidates for commercial application.

In particular, the Secretary is to examine advanced proliferation-resistant and passively safe reactor designs.

The Act also requires the Secretary to pursue an advanced fuel recycling program to evaluate proliferation-resistant fuel recycling and transmutation technologies that will minimize environmental and public health and safety impacts. These new technologies are intended to be alternatives to current reprocessing technologies and are intended to support the evaluation of alternative national strategies for spent fuel and the Generation IV advanced reactor concepts.

Construction of Advanced Nuclear Reactors (Title IX, Sections 951-955)

During the 2007 to 2009 period, the Act allocates \$1.18 billion for core programs to support the construction of advanced new nuclear reactors, including nuclear energy research, development, demonstration, and commercial application activities. The Department of Energy's civilian nuclear infrastructure and facilities program will receive \$420 million of the funds allocated for these purposes. An additional \$580 million is allocated for the Advanced Fuel Cell Initiative and \$149.7 million for nuclear science and engineering support at universities.

Next Generation Nuclear Plants (Title VI, Section 641) and Hydrogen Production at Existing Nuclear Plants (Title VI, Section 634)

The Act authorizes \$1.25 billion under the Next Generation Nuclear Plant Program for research and development and for the construction of an advanced nuclear cogeneration reactor to produce electricity and hydrogen at the Idaho National Laboratory. An additional \$100 million is authorized to demonstrate the feasibility of hydrogen production at two existing nuclear powerplants.



For more information relating to the nuclear energy provisions of the Energy Policy Act of 2005, please contact one of the following lawyers:

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