

## XIV. Nuclear Energy

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### A. INTRODUCTION

In 2006, there were a number of significant legislative, judicial, and regulatory developments involving atomic energy related primarily to activities involving spent fuel and new reactors. On the legislative front, under a House bill introduced in the 110th Congress, New York's Indian Point nuclear plants would have their relicensing contingent on completion of an Independent Safety Assessment (ISA) and remediation of any problems that

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were identified. In addition, Senator Reid introduced a bill that would require nuclear power plant operators to transfer nuclear waste from spent nuclear fuel pools into dry storage casks located on-site at NRC-licensed independent spent fuel storage installations. On February 15, 2007, the president signed Public Law No. 110-5, providing funding through the end of fiscal year 2007 for nuclear energy research and development, among other things.

On the judicial front, the Court of Federal Claims awarded damages in several spent nuclear fuel cases but voided a prior order of the U.S. Court of Appeals for the D.C. Circuit preventing the government from raising certain defenses. In addition, the D.C. Circuit upheld the NRC's environmental impact statement regarding transportation of spent fuel to the Yucca Mountain depository; however, the Ninth Circuit held that the NRC must consider terrorist attacks when analyzing environmental impacts. Plaintiffs in the tritium lawsuits suffered a setback when a court denied their request for certification of class in order to commence a class action suit against Exelon.

On the administrative side, the number of expected combined operating license applications continues to rise and the NRC continues to revise its rulemaking activities to accommodate these anticipated applications. One early site permit (ESP) has been issued by the NRC, another ESP is expected to be issued imminently, and the agency received a new ESP application in August 2006. Additionally, Louisiana Energy Services, L.P. received its license for a uranium enrichment facility, the Commission is currently considering the Ninth Circuit's remand to address the environmental consequences of a terrorist attack in the Diablo Canyon independent spent fuel storage installation proceeding, and the Licensing Board continues to hear a number of cases pertaining to license renewal and the fallout from the Davis-Besse vessel head incident. The NRC is also currently preparing for DOE's anticipated June 2008 submittal of an application for a geologic repository at Yucca Mountain, Nevada. Finally, the government continues to develop criteria and guidance for the incentives contained in the Energy Policy Act of 2005 that are applicable to nuclear power plants.

## **B. LEGISLATIVE ACTIVITY**

### **1. Spent Nuclear Fuel**

#### *a. Spent Nuclear Fuel Storage*

Senator Harry Reid (D-Nev.) introduced the Federal Accountability for Nuclear Waste Storage Act of 2007 (S. 784) on March 6, 2007. The bill

was referred to the Committee on Environment and Public Works. Previously, similar bills, the Spent Nuclear Fuel On-Site Storage Security Act of 2005 (S. 2099) and (H.R. 4358), were introduced on December 14, 2005, in the Senate by Senator Reid and in the House by Representative Jim Matheson (R-Utah). S. 2099 and H.R. 4358 did not pass out of committee.

S. 784 would amend the Nuclear Waste Policy Act of 1982 to require that nuclear power plant operators transfer nuclear waste from spent nuclear fuel pools into dry storage casks located on-site at NRC-licensed independent spent fuel storage installations. The legislation would require that the transfer occur within six years after enactment or six years after the waste is produced. The bill would require DOE to take title and full responsibility (including safety, security, and financial responsibility) for the spent nuclear fuel after it has been transferred to dry cask storage in compliance with NRC regulations. S. 784 also would require that after the conveyance of title to DOE, the license held for the spent nuclear fuel dry cask is terminated and a new license issued to DOE. In addition, under the legislation, expenditures from the Nuclear Waste Fund would be used to compensate the utilities for expenses associated with transferring, storing, and securing the nuclear waste.

*b. Spent Nuclear Fuel Management and Disposal*

Several bills have been introduced providing for a comprehensive waste management program for moving spent fuel to an interim storage facility at Yucca Mountain, Nevada. Senators Pete Domenici (R-N.M.) and James Inhofe (R-Okla.) jointly introduced the Nuclear Fuel Management and Disposal Act (S. 2589) by request from DOE in April 2006. A House version (H.R. 5360) was introduced as well by Representative Joe Barton (R-Tex.) by request in May 2006. Senator Inhofe proposed a similar bill, S. 2610, focusing on the environmental aspects of the bill. Most recently, in September 2006, Senator Domenici introduced S. 3962, dubbed NU-WAY for Nuclear Waste Acceleration to Yucca, as his own version of S. 2589. All four of the bills died in committees when the session ended and have yet to be reintroduced. However, similar legislation is likely to be introduced in this session in the ongoing effort to get Yucca Mountain online by 2017.

The most recent version of the bill, S. 3962, could have resulted in spent fuel being moved to an interim storage facility at Yucca Mountain, Nevada, in 2011, six years before DOE's projection of 2017 for permanent waste emplacement at the Yucca Mountain repository. S. 3962 included many provisions of the original bills, S. 2589 and H.R. 5360, with the notable exception of the provision that would have preempted state, tribal, and, in

some cases, Department of Transportation requirements for the shipping of nuclear waste.

S. 3962 would have required a license application to be submitted to the NRC for the interim site at the Nevada Test Site (NTS) at the same time DOE filed its license application for the permanent repository at Yucca Mountain. DOE has said that it expects to submit the Yucca Mountain license application in June 2008. The NRC would have 18 months from that date to decide on the interim site and four years to complete its review for the permanent repository.

As soon as DOE received the NRC permit for the interim site, S. 3962 would have allowed it to begin moving defense fuel and waste there. This could have been as early as 2010. The bill also would have authorized DOE to begin moving civilian spent fuel to the interim site as soon as the NRC issued the construction authorization for Yucca Mountain and after the DOE secretary determined that recycling technologies in accordance with the Global Nuclear Energy Partnership (GNEP) would not have been available for that fuel within a reasonable period of time. According to DOE's schedule, the construction authorization would be issued in September 2011.

S. 3962 also contained other provisions aimed at moving the Yucca Mountain project forward. The bill would have permanently withdrawn from public use approximately 147,000 acres of federal land for the rail route to Yucca Mountain and for an aboveground interim storage site at the NTS, which is adjacent to the proposed repository at Yucca Mountain. The bill also would have lifted the existing 70,000-metric-ton statutory limit on the amount of waste that could be stored at Yucca Mountain. The new capacity would have been determined by scientific and technical analysis.

In addition, S. 3962 would have authorized DOE to begin construction of the infrastructure for the repository at Yucca Mountain and for the aboveground interim storage site as soon as DOE completed an environmental impact statement (EIS) that evaluates these activities. The bill also would have modified DOE's waste acceptance contract that a utility must sign with DOE that currently states that DOE will begin to accept spent fuel in 1998. The modified contract would have changed the deadline for waste acceptance by DOE from a specified date to 25 years after a nuclear plant begins commercial operation.

S. 3962 would have provided that appropriations from the Nuclear Waste Fund would not count against the allocations for discretionary spending. This would mean that DOE would have access to full funds in the Nuclear Waste Fund. The bill also would have addressed the NRC's waste confidence rule by stating that DOE's statutory obligation to site and operate a

repository provides reasonable assurance that spent fuel and high-level radioactive waste will be disposed of safely and in a timely manner.

## **2. Appropriations**

During the 109th Congress, the House passed the FY 2007 Energy and Water Development Appropriations Bill, H.R. 5427, in May 2006, and the Senate Appropriations Committee approved its version of the measure in June 2006. The bill was not enacted by the 109th Congress, but, before adjourning, the 109th Congress passed a continuing resolution (H.J. Res. 102) at the FY 2006 level to provide FY 2007 funding through February 15, 2007.

On February 15, 2007, the president signed the Revised Continuing Appropriations Resolution, 2007 (P.L. 110-5), funding the government through the end of the current fiscal year (September 30, 2007.) The new law requires federal agencies to report back to Congress with a spending plan within thirty days of its passage.

NRC received \$813 million for its budget, of which \$45.7 million comes from the Nuclear Waste Trust Fund and \$659 million comes from fees assessed on the nuclear industry. Appropriations will provide the balance.

DOE's nuclear research power programs, including the Nuclear Power 2010 program and the GNEP, will share \$680 million with DOE's electricity delivery and reliability programs. DOE's Nuclear Power 2010 program is a government-industry shared-cost effort aimed at identifying sites to develop, license, and build new nuclear power plants. GNEP is the administration's spent fuel and recycling program.

The new law allows DOE to set aside \$7 million for DOE expenses needed to administer a loan guarantee program that the nuclear industry is counting on to help provide financial backing for its new nuclear reactors. Also, the nuclear storage facility at Yucca Mountain received \$445.5 million under the law, which is a \$50 million cut from 2006 levels. The \$50 million reduction reflects the elimination of earmarks for waste reprocessing and recycling that helped set the stage for GNEP.

The law also calls for a halt in spending for construction at the proposed plutonium mixed oxide fuel fabrication facility at the Savannah River Site in South Carolina until August 1, 2007.

## **3. Nuclear Safety**

In February 2007, Senator Hillary Clinton (D-N.Y.) reintroduced a bill (S. 649) in the Senate requiring the NRC to conduct an ISA of Entergy

Corporation's nuclear power plants at Indian Point, New York. Senator Clinton first introduced the bill in May 2006. Representative John Hall (D-N.Y.) and others introduced a House version of the bill (H.R. 994).

Both H.R. 994 and S. 649 would require the completion of an ISA for Indian Point within six months of passage of the bill and require Entergy to make any recommended repairs or take any recommended actions. However, H.R. 994 would require the ISA to be completed and any recommended repairs or actions to be fully implemented prior to NRC renewal of Indian Point's licenses. H.R. 994 and S. 649 also would require the NRC and Department of Homeland Security to complete a detailed evaluation of the radiological emergency plan for Indian Point.

In addition, H.R. 994 specifies that the ISA would be conducted by a 25-member team comprised as follows: NRC officials (who are unaffiliated with the NRC Region 1 office or the NRC Office of Nuclear Reactor Regulation); six independent contractors with no prior history of working with Indian Point's nuclear power plants or any other nuclear power plant owned or operated by Entergy Corporation; the president of New York State Energy and Research Development Authority or designee; the director of the Bureau of Hazardous Waste and Radiation Management in the Division of Solid and Hazardous Materials of the New York State Department of Environmental Conservation, or his designee; and a New York State-appointed contractor with experience in systems engineering and no history of affiliation with any nuclear power plant owned by Entergy Corporation.

H.R. 994 also provides that the ISA would be monitored by a group of four officials appointed by the State of New York, as well as a review team composed of five citizens appointed by the State of New York, including one resident from each of the counties of Westchester, Rockland, Putnam, and Orange. In addition, the legislation would authorize \$10 million to the NRC to carry out the ISA for fiscal year 2008.

#### **4. Nuclear Incentives**

On January 12, 2007, Senators Joe Lieberman (I-Conn.) and John McCain (R-Ariz.) introduced S. 280, Climate Stewardship and Innovation Act of 2007. The greenhouse gas emissions bill contains provisions aimed at encouraging the expansion of nuclear power in the United States.

S. 280 would establish a DOE-nuclear industry partnership program for a 50-50 cost-sharing first-of-a-kind engineering expense for one new nuclear reactor design. An advanced nuclear reactor is one of four technologies eligible for assistance for first-of-a-kind engineering expenses under the bill. The eligible technologies would have to generate electricity or produce transportation fuel with low or no net greenhouse gas emissions.

Funding for DOE's portion would come from the emissions credit trading auction program managed by a new entity created under the bill, the Climate Change Credit Corporation. The program would authorize funding for three nuclear reactor projects. The projects would have to be three different designs certified by NRC and each project would be capped at \$200 million.

Companies that subsequently construct a nuclear reactor using one of the three reactor designs benefiting from the cost-sharing program would have to make a payment to the government, the amount of which would be specified by DOE and the Climate Change Credit Corporation. If a company is awarded financial assistance under the cost-sharing program but does not commence construction within 10 years, the company would have to repay any costs incurred by the Climate Change Credit Corporation under the program.

In addition, the bill would create a demonstration program allowing the first applicant for approval for a new advanced reactor design to be eligible for sharing expenses related to demonstrating NRC's ESP and combined license (COL) applications.

Under the legislation, if a nuclear power plant is delayed because of governmental action, particularly a licensing holdup by the NRC, the project developers would be able to collect additional financial assistance. The financial assistance payable to the project developers includes payments covering additional capital costs, project oversight expenses, replacement power costs, and calculated interest. The bill also would establish terms for a company to repay any government loan.

S. 280 also would provide that under the loan guarantee provision, the government would not provide any payments if a loan default is due to the project developer's malfeasance, misfeasance, or mismanagement of the construction or operation of the project or some other action under its control.

## C. JUDICIAL ACTIVITY

### 1. Spent Nuclear Fuel

Beginning in 1998, nuclear utilities began filing suits against DOE for its failure to remove SNF from reactor sites pursuant to the terms of the standard contract and the Nuclear Waste Policy Act (NWPA). The following discussion summarizes those aspects of each SNF decision that are unique to that decision.

*a. Litigation Before the U.S. Court of Federal Claims*

*i. Yankee Atomic v. United States*

On September 30, 2006, the U.S. Court of Federal Claims awarded \$142 million in damages to Maine Yankee, Connecticut Yankee Atomic Power Co., and Yankee Atomic Power Co., allowing the three former nuclear power plant owners to recover some of the SNF costs they incurred after DOE failed to begin accepting SNF for disposal by the 1998 standard contract date.<sup>1</sup> The court found that the nuclear plant owners reasonably incurred substantial, foreseeable costs in mitigating DOE's delay in performance of its contractual obligations and that the delay significantly factored in the owners' expenditure decisions.

*ii. Vermont Yankee v. United States*

On October 19, 2006, the Court of Federal Claims denied the government's cross-motions for summary judgment to dismiss Vermont Yankee's claims regarding DOE's failure to begin disposal on January 31, 1998, as per the standard contract.<sup>2</sup> The court rejected the government's attempts to distinguish this case from other cases involving a partial breach and held that although Vermont Yankee was not entitled to have its SNF accepted by DOE on January 31, 1998 (because it had individually contracted for a later date), it was a member of the industry that contracted with the government to dispose of SNF and thus was entitled to relief of the costs of obligations of interim storage of SNF.

*iii. Nebraska Public Power v. United States*

On October 31, 2006, the Court of Federal Claims concluded that the mandamus order of the D.C. Circuit in *Northern States I*<sup>3</sup> was void and did not preclude the government from presenting certain defenses to Nebraska's breach of contract claims brought in the Court of Federal Claims, holding that the D.C. Circuit acted in excess of its jurisdiction by issuing the mandamus.<sup>4</sup> On December 19, 2006, the court granted Nebraska's unopposed

1. Yankee Atomic Elec. Co. v. United States, 73 Fed. Cl. 249 (2006).

2. Vermont Yankee Nuclear Power Corp. v. United States, 73 Fed. Cl. 236 (2006).

3. N. States Power Co. v. Dep't of Energy (*Northern States I*), 128 F.3d 754 (D.C. Cir. 1997). The limited mandamus order issued by the D.C. Circuit in *Northern States I* precluded DOE from claiming that its delay in disposing of SNF was unavoidable on the ground that it had not yet prepared a permanent repository or that it had no authority to provide storage in the interim.

4. Nebraska Public Power Dist. v. United States, 73 Fed. Cl. 650 (2006).

motion for interlocutory appeal, allowing Nebraska to seek confirmation that the mandamus was void before filing briefs in opposition.<sup>5</sup>

iv. *Sacramento Municipal Utility v. United States*

On December 1, 2006, the Court of Federal Claims denied Sacramento Municipal Utility District's (SMUD) request to reconsider the court's prior ruling that it was not foreseeable on the standard contract's execution date that any breach of the contract would require the government to be liable for the costs of SMUD's decision to employ a dual-purpose dry storage system.<sup>6</sup> The court held that SMUD's decision to use dual-purpose dry storage was not foreseeable and also unreasonable. The court also set the final damages awarded to Sacramento at approximately \$40 million.

v. *Pacific Gas & Electric Co. v. United States*

On April 25, 2006, the Court of Federal Claims granted the government's motion for summary judgment to dismiss Pacific Gas & Electric Company's (PG&E) claim for restitution of all fees paid to DOE for removal of SNF as a result of DOE's total breach of contract, which claim PG&E put forth as an alternative to its claim for damages resulting from DOE's partial breach.<sup>7</sup> The court cited three decisions by the Federal Circuit<sup>8</sup> in holding that the claim for total breach was prohibited as a matter of law because the NWPA regulatory regime altered traditional contract remedies by (1) requiring DOE and utilities to enter into the standard contract, (2) making the government exclusively responsible for SNF collection and removal, and (3) placing responsibility for payment for such disposal on PG&E (among others). The court also held PG&E's Fifth Amendment takings claim to be invalid, pursuant to the reasoning in *Commonwealth Edison Co. v. United States*,<sup>9</sup> which held that because SNF takings claims related to storage of non-GTCC waste rest solely on the existence of the standard contract, plaintiffs' rights must be enforced through a contract remedy. However, the court held that PG&E's takings claim, as it relates to GTCC waste, is unripe pending a determination by DOE as to whether GTCC waste is covered by the standard contract.

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5. Nebraska Public Power Dist. v. United States, 74 Fed. Cl. 762 (2006).

6. Sacramento Mun. Utility Dist. v. United States, 74 Fed. Cl. 727 (2006).

7. Pacific Gas & Electric Co. v. United States, 70 Fed. Cl. 766 (2006).

8. Indiana Michigan Power Co. v. United States, 422 F.3d 1369 (Fed. Cir. 2005); Maine Yankee Atomic Power Co. v. United States, 225 F.3d 1336 (Fed. Cir. 2000); Roedler v. DOE, 255 F.3d 1347 (Fed. Cir. 2001).

9. 56 Fed. Cl. 652 (2003).

*b. Other SNF Decisions*

On September 25, 2006, the Federal Circuit held that the Court of Federal Claims did possess subject matter jurisdiction, pursuant to the Tucker Act,<sup>10</sup> over PSEG's breach of contract claims.<sup>11</sup> In addition, the court rejected PSEG's argument that section 119 of the NWPA granted the D.C. Circuit exclusive jurisdiction over its claims because performance under the standard contract does not fall within the purview of the NWPA; therefore, the NWPA does not strip the Claims Court of its Tucker Act jurisdiction.

## **2. Yucca Mountain Litigation**

*a. Nevada v. DOE*

On August 8, 2006, the D.C. Circuit rejected claims by the State of Nevada regarding DOE's final environmental impact statement (FEIS) and record of decision (ROD), which analyzed the transportation of SNF from nuclear plants to the Yucca Mountain depository, as either unripe for review or without merit.<sup>12</sup> Nevada claimed that DOE acted contrary to the National Environmental Policy Act (NEPA),<sup>13</sup> and arbitrarily and capriciously, when DOE did not prepare a supplemental environmental impact statement (SEIS) before adopting a contingency plan to ship casks of SNF to Yucca Mountain partly by rail and then partly by truck if the rail system to the depository were unavailable when the depository came online. The court rejected Nevada's claims as unripe for review, holding that DOE has not yet made a final determination regarding the plan. The court also rejected as unripe the claim that DOE's selection (without approval by the Surface Transportation Board (STB)) of the Caliente Corridor as the route through which to build the railway line invaded the STB's exclusive jurisdiction over carrier rail lines.

The court also dismissed the claim that NEPA required DOE to consult STB when drafting the FEIS because Nevada failed to raise the argument at the administrative level. The court further found that DOE complied with NEPA and the Council on Environmental Quality's (CEQ) notice and comment requirements by simply requesting the comments of the Nevada state engineer (and receiving comments from an agency headed by the state engineer). The court also held, contrary to Nevada's claims, that DOE had

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10. 28 U.S.C. § 1491(a) (2000).

11. PSEG Nuclear, L.L.C. v. United States, 464 F.3d 1343 (Fed. Cir. 2006).

12. 457 F.3d 78 (D.C. Cir. 2006).

13. 42 U.S.C. §§ 4321 *et seq.*

the discretion to tier its FEIS so as to preserve for further scrutiny in another EIS where to place the railway within the Caliente Corridor. Lastly, the court also held, over Nevada's objection, that DOE took the requisite hard look at the environmental impacts of the rail corridor's selection.

*b. Nevada v. NRC*

In September 2006, the D.C. Circuit rejected claims by the State of Nevada that the NRC's Waste Confidence Rule<sup>14</sup> would alter the judgment of the commissioners during the Yucca Mountain licensing proceeding.<sup>15</sup> The court held that Nevada did not have standing to raise this claim because Nevada could point to no injury in fact as a consequence of the rule. Further, the rule has no legal effect on the Yucca Mountain proceeding as it only affects proceedings for reactor facility storage pools or independent spent fuel storage installations, not proceedings for nuclear waste repositories like Yucca Mountain.

### **3. Price-Anderson Act Litigation**

In February 2007,<sup>16</sup> the U.S. District Court for the District of Arizona dismissed the plaintiff's state law claim of negligence, as well as its strict liability theory of recovery. The court held that the standard of care in a negligence claim (and a derivative claim for loss of consortium) is in direct conflict with the Price-Anderson Act<sup>17</sup> and that a claim based on absolute or strict liability is inconsistent with the act because it assumes that a plaintiff could recover without first having to establish that the defendant breached a federally imposed standard of care.

### **4. Early Site Permit Proceedings**

In December 2006, the Seventh Circuit affirmed the NRC's holding that Exelon's application for an ESP for the construction of a new nuclear power facility properly considered various alternative energy sources as required by NEPA.<sup>18</sup> The court deferred to the NRC's judgments regarding Exelon's consideration of alternative resources such as solar and wind power. Further, the court maintained that it would not second-guess an agency's

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14. 10 C.F.R. § 51.23 (1984). *See also* Waste Confidence Decision, 49 Fed. Reg. 34,688 (Aug. 31, 1984); Waste Confidence Decision Review, 55 Fed. Reg. 38,472 (Sept. 18, 1990).

15. *Nevada v. NRC*, 199 Fed. Appx. 1 (D.C. Cir. 2006).

16. *Koller v. Pinnacle W. Capital Corp.*, No. CV-06-2031-PHX-FJM, 2007 U.S. Dist. LEXIS 9186 (D. Ariz. Feb. 7, 2007).

17. 42 U.S.C. §§ 2011 *et seq.*

18. *Env'tl. Law & Pol'y Ctr. v. United States*, 470 F.3d 676 (7th Cir. 2006).

substantive decisions, but would only consider whether required procedures were followed.

### **5. Tritium Lawsuits**

In September 2006, the U.S. District Court for the Northern District of Illinois denied the consolidated motions<sup>19</sup> made by three separate plaintiffs seeking a preliminary determination of the duty owed regarding their claims of alleged tritium spills from a nuclear plant owned and operated by Exelon.<sup>20</sup> In addition, on March 19, 2007, the court denied class certification to several plaintiffs suing Exelon for damages due to tritium leaks, holding that plaintiffs did not prove that a class action was appropriate and that the class definition was overbroad and indefinite.<sup>21</sup>

### **6. Terrorism and Environmental Impact Statements**

In June 2006, the Ninth Circuit held that the NRC violated NEPA when it determined that an EIS need not consider the environmental effects of a terrorist attack.<sup>22</sup> NRC had rejected the appellant's contention that the EIS required a consideration of the impact of terrorist attacks on the grounds that the probability of such attacks is remote and speculative. The court reasoned that (1) the NRC could not, as a matter of law, determine that terrorist attacks are too speculative to warrant consideration—particularly given the NRC's expenditure of resources to study and guard against just such a threat; (2) the NRC could not eliminate consideration of a possible environmental consequence by simply determining the risk to be unquantifiable; (3) although the NRC need not conduct a worst-case analysis, the NRC cannot equate a request to assess the environmental impact of a terrorist act with a demand for worst-case analysis; and (4) the potential security risks associated with publicizing information gleaned in an EIS do not obviate NEPA's requirement to analyze those risks that might involve assessment of sensitive information and incorporate them into an agency's decision making (rather, such risks may supersede the requirement to pub-

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19. See *Duffin v. Exelon Corp.*, No. 06 C 1382, 2006 U.S. Dist. LEXIS 44908 (N.D. Ill. June 16, 2006); *Devine v. Commonwealth Edison Co.*, Nos. 06 C 2383 & 06 C 2384, 2006 U.S. Dist. LEXIS 49180 (N.D. Ill. July 19, 2006) (combined with *Sheck v. Commonwealth Edison Co.*).

20. *Duffin v. Exelon Corp.*, Nos. 06 C 1382, 06 C 2383, 06 C 2384, 2006 U.S. Dist. LEXIS 67138 (N.D. Ill. Sept. 5, 2006).

21. *Duffin v. Exelon Corp.*, No. 06 C 1382, 2007 U.S. Dist. LEXIS 19683 (N.D. Ill. Mar. 19, 2007).

22. *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016 (9th Cir. 2006).

licize all parts of the EIS). On January 16, 2007, the Supreme Court denied a petition for a writ of certiorari in this proceeding.<sup>23</sup>

## **7. Private Fuel Storage**

In April 2007, the D.C. Circuit heard oral arguments regarding Utah's petition for review of the Commission's 2005 decision authorizing the NRC staff to issue a construction and operating license to Private Fuel Storage (PFS) for an independent spent fuel storage installation facility located on the Skull Valley Goshute Indian reservation.<sup>24</sup> Utah has challenged the NRC's decision as being arbitrary and capricious.

### **D. ADMINISTRATIVE ACTIVITY**

#### **1. Nuclear Regulatory Commission Policy, Practices, and Procedures**

##### *a. Combined Operating Licenses*

The number of expected COL applications continues to rise and now stands at more than 20, with several of those applications for dual units. The NRC continues to estimate a forty-two-month review for a COL, which breaks down to about thirty months for a technical review and twelve months for the mandatory hearing. The first complete applications are expected to be filed in the fourth quarter of 2007.

##### *b. ESP Applications*

To date, the NRC has received four ESP applications. Exelon Generation Company's application for the Clinton site was submitted to the NRC in 2003, and a permit was issued on March 15, 2007. System Energy Resources, Inc.'s (SERI) application for an ESP at the site of the existing Grand Gulf Nuclear Station in Claiborne County, Mississippi, also was submitted in 2003, and the Commission approved issuance of the permit on March 27, 2007. Dominion's ESP application for its North Anna site—the third of the initial three ESP applications submitted in 2003—was delayed while the NRC prepared an SEIS to address changes in the ESP application related to cooling water. The SEIS for the North Anna ESP was issued on December 29, 2006. A Licensing Board plans to conduct a hearing on the application in 2007. Finally, on August 15, 2006, Southern

23. Pacific Gas & Elec. Co. v. San Luis Obispo Mothers for Peace, 127 S. Ct. 1124 (2007).

24. Private Fuel Storage, LLC (Independent Spent Fuel Storage Installation), CLI-05-19, 2005 NRC LEXIS 163 (Sept. 9, 2005).

Nuclear Operating Company submitted an application to the NRC for an ESP for two additional reactor plants at the Vogtle Electric Generating Plant site near Waynesboro, Georgia.

*c. New Reactor Rulemaking*

On October 31, 2006, the NRC staff sent SECY-06-0220, Final Rule to Update 10 C.F.R. Part 52, Licenses, Certifications, and Approvals for Nuclear Power Plants, to the Commission for approval. A Staff Requirements Memorandum (SRM) is anticipated from the Commission in Spring 2007 and is expected to adopt most, if not all, of the language proposed by the NRC staff. The primary intent of the rulemaking is to consolidate and reorganize Part 52. A few key changes in the rule language proposed by the staff for approval by the Commission include expanding the circumstances for amending a certified design, authorizing early environmental report or early safety evaluation report submissions up to six months in advance of the remainder of the COL application, and incorporating proposed revisions to the regulations governing the immediate effectiveness of licensing board decisions.

On October 17, 2006, the NRC published in the *Federal Register* a supplemental proposed rule relating to limited work authorizations (LWAs). On February 7, 2007, the NRC staff sent the rule to the Commission for approval. The final LWA rule will revise the definition of construction and reform the LWA process in 10 C.F.R. § 50.10(e) by removing the need for construction permit and combined license applicants and holders of early site permits to obtain a limited work authorization, construction permit, or combined license to conduct certain preconstruction activities.

*d. Revised Design Basis Threat Requirements*

On January 29, 2007, the NRC approved a final rule that codifies a revised design basis threat (DBT). The revised DBT rule, 10 C.F.R. § 73.1, provides a general description of adversaries who might attempt radiological sabotage against which a licensee's physical protection systems must be able to defend. Although the guidance documents containing the specific measures associated with the rule are withheld from the public for security reasons, the final rule contains a general description of the modes of attack, capabilities of attackers, and the intention of the attack. Of particular note, the revised DBT rule includes the threat of a cyber-attack as an explicit element of the DBT. Although a response to this threat was implied in the proposed rule, an explicit element was added to the final rule following public comments. The revised DBT does not include attacks using commercial aircraft. As NRC Chairman Dale Klein noted in a statement on the

DBT rule, “nuclear power plants are inherently robust structures that our studies show provide adequate protection in a hypothetical attack by an airplane.”

*e. Groundwater Protection*

In May 2006, NEI announced that the industry had unanimously adopted an initiative to address groundwater releases. The voluntary initiative was developed in response to a number of unplanned tritium discharges, which have been reported at a number of plants in the United States. To date, all reactor sites are implementing the industry groundwater initiative. In October 2006, the NRC’s tritium lessons-learned task force found “no impact on public health” in its historical survey of inadvertent, unmonitored liquid radioactive releases containing tritium. However, the task force made twenty-six recommendations, including updating NRC radiation monitoring regulations and voluntary operator reporting to state and local agencies. Subsequently, the NRC formed a working group to consider new guidance or regulations relating to groundwater monitoring.

*f. License Transfers*

A December 2006 joint press release announced the sale of Point Beach Nuclear Plant Power from Wisconsin Energy Corporation to FPL Group for \$998 million. The station’s two pressurized water reactors have a combined capacity of 1,060 MW. The transfer application was filed with the NRC on January 26, 2007. Consumers Energy, a subsidiary of CMS Energy, is selling Palisades Nuclear Power Plant to Entergy Corporation for \$380 million. The sale is expected to close in the first quarter of 2007. The deal still needs to be approved by a number of agencies, including the NRC. On February 6, 2006, British Nuclear Fuels (BNFL) and Toshiba Corporation announced that they had entered into a definitive agreement under which Toshiba would acquire Westinghouse Electric Company for a reported \$5.4 billion. On September 15, 2006, the NRC approved Westinghouse’s request for the NRC’s consent to the indirect change of control with respect to materials licenses, quality assurance program approvals, and certificates of compliance. On October 17, 2006, Toshiba announced that it had completed its acquisition of Westinghouse.

*g. License Renewal*

On June 9, 2006, the staff stated in SECY-06-134 that it plans to complete its update to the generic EIS for license renewal, NUREG-1437, by February 2009. The revision of the generic EIS, which was last updated over a decade ago, began in 2003 but was stalled due to lack of agency resources.

The staff expects to issue a draft generic EIS in January 2008. The staff also will issue associated guidance documents, Supplement 1 to Regulatory Guide 4.2, Preparation of Supplemental Environmental Reports for Applications to Renew Nuclear Power Plant Operating Licenses, and Supplement 1 to NUREG-1555, Standard Review Plans for Environmental Reviews for Nuclear Power Plants, to reflect the changes to the generic EIS. To date, the NRC has issued operating license renewals for 44 nuclear units.

## **2. Important NRC Adjudication Developments**

### *a. USEC*

On August 23, 2004, USEC, Inc. filed a license application with the NRC to build and operate a commercial centrifuge uranium enrichment facility, the American Centrifuge Plant, at its Portsmouth Gaseous Diffusion Plant site in Piketon, Ohio. On March 13, 2007, at the direction of the Commission, the Licensing Board overseeing USEC's American Centrifuge Plant held USEC's mandatory hearing. The Licensing Board is expected to issue a decision in April 2007.

### *b. LES*

In 2003, Louisiana Energy Services, LLP (LES) submitted an application for a license to build a 3-million SWU/year gas centrifuge uranium enrichment facility in Lea County, New Mexico. In June 2006, after the completion of a Licensing Board hearing, the NRC staff issued LES's license. Construction is under way at the site, including site clearing, grading, and backfilling for seismically qualified buildings. The intervenors in the Licensing Board proceeding, Nuclear Information and Resource Services and Public Citizen (NIRS/PC), filed suit on August 15, 2006, in the D.C. Circuit, arguing that the NRC violated federal laws and agency regulations when it issued LES's license.

### *c. Pacific Gas & Electric Company*

In 2001, PG&E filed an application with the NRC to build an independent spent fuel storage installation facility (ISFSI) at its Diablo Canyon Power Plant for the interim storage of spent nuclear fuel. The California-based group San Luis Obispo Mothers for Peace (SLOMFP) successfully petitioned for a hearing on PG&E's ISFSI application and argued that an agency needs to consider terrorism under NEPA when conducting its environmental review. The Commission disagreed but was overturned on appeal in the Ninth Circuit. On February 27, 2006, the Commission issued a memorandum and order establishing a course for remand proceedings at the agency where the NRC staff is to prepare an environmental assessment (EA) sup-

plement based—to the extent possible—on the agency record, within ninety days, addressing both the probability and the consequences of an attack at the ISFSI site. The intervenors will then have thirty days from the date of the EA supplement to file proposed contentions to the Commission. There also will be a forty-five-day public comment opportunity outside the hearing process. The staff will be expected to complete its review of the comments sixty days after the comment period closes. The Commission expects to complete the process, including any hearing, within one year.

*d. Davis-Besse Cases*

This past year, the NRC's Licensing Board had a number of proceedings stemming from former Davis-Besse employees' challenge to NRC enforcement orders that determined that they had made false and misleading statements and concealed material information about the scope and quality of past reactor vessel head inspections and the conditions of the reactor vessel head at First Energy Nuclear Operating Company's (FENOC) Davis-Besse facility. The licensing proceeding involving Andrew Siemaszko, a former FENOC systems engineer, was placed in abeyance on March 2, 2006, pending the resolution of a parallel criminal prosecution by the Department of Justice. On February 1, 2007, David Geisen, a former FENOC engineering manager, also had his proceeding put into abeyance for the same reason. On September 29, 2006, the Licensing Board presiding over the proceeding involving Dale Miller, the former Davis-Besse compliance supervisor, approved the parties' proposed settlement agreement and dismissed the case. Subsequently, on December 13, 2006, the Licensing Board presiding over the proceeding involving Steven Moffitt, the former Davis-Besse technical services director, approved the parties' proposed settlement agreement and dismissed that case.

*e. HLW Storage Developments*

On July 19, 2006, the DOE Office of Civilian Radioactive Waste Management released its schedule for submitting a license application for the proposed Yucca Mountain repository. The schedule included plans for DOE to certify that its licensing support network document collection is in compliance with the requirements of 10 C.F.R. Subpart J in December 2007. DOE expects to meet that certification milestone as it reports its backlog document pipeline is empty, and it now is processing current materials.

In addition, DOE continues to work on its supplement to the 2002 Yucca Mountain EIS. The supplemental Yucca Mountain EIS will address current repository design and operational plans. DOE expects to complete the supplement in May 2008. Separately, on October 30, 2006, DOE published a

notice in the *Federal Register* that it would review the Mina corridor, an alternate rail route to the site, after getting approval from the Walker River Paiute Tribe to consider a rail line through its reservation. DOE also is considering proposing Yucca Mountain legislation that would address, among other topics, land withdrawal and water rights for the site. DOE maintains that it is on track to submit a repository license application to the NRC no later than June 2008.

### **3. Energy Policy Act of 2005 Incentives**

The Energy Policy Act of 2005 (EPAcT) included three key incentives that apply to new nuclear power plants: production tax credits, loan guarantees, and standby support. Importantly, DOE has determined that applicants may use all three of the incentives for a single plant.

Because production tax credits are familiar to the energy industry and to the IRS, the production tax credit incentives in EPAcT are fairly straightforward and well-understood. In Notice 2006-40, the IRS provided interim guidance relating to the credit under section 45J of the Internal Revenue Code for production of electricity at advanced nuclear facilities. That guidance sets out three key dates that govern whether a project will be eligible for tax credits. First, an applicant must file a COL by December 31, 2008 (or before the nameplate capacity reaches 6000 MW—whichever is later). Then, the NRC must issue the COL before January 1, 2014. Finally, the facility must be placed in service before January 21, 2021. The credit is 1.8 cents per kilowatt hour that is produced and sold to an unrelated person.

EPAcT also provides for loan guarantees to support development of energy technologies that avoid, reduce, or sequester air pollutants or greenhouse gas emissions, including nuclear power plants. Although the loan guarantee is seen by some in the industry as the key incentive for any new nuclear projects, the loan guarantee program has seen the least progress of the three nuclear incentives in EPAcT. The program has been hamstrung by OMB objections regarding the cost of the program, and DOE has yet to formally establish the Loan Guarantee Program Office.

The most unusual EPAcT incentive is the risk insurance or standby support program. DOE issued its final standby support regulations on August 11, 2006. The program is supposed to cover losses resulting from, among other factors, the NRC's failure to meet its schedule for construction verification activities and the conduct of preoperational hearings. Significantly, the NRC has firmly and repeatedly stated that it will not provide a schedule for construction verification but will instead perform its inspections consistent with a licensee's construction schedules.