In the United States Court of Federal Claims

Nos. 99-447C & 03-2626C
(partially consolidated)

(Filed Under Seal: May 6, 2010)
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BOSTON EDISON COMPANY, Plaintiff, v. UNITED STATES, Defendant.	Post-trial decision in suit for damages for partial breach of Standard Contract for disposal of spent nuclear fuel; sale of nuclear power plant; buyer's claim for damages following on seller's correlative claim; foreseeability; causation; reasonable certainty of damages; government's right to recoup from buyer damages payable by government to seller measured by diminution in value of nuclear power plant; future maturity of recoupment right
ENTERGY NUCLEAR GENERATION CO., Plaintiff, v. UNITED STATES, Defendant.	

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OPINION AND ORDER[1]

LETTOW, Judge.

INTRODUCTION

This litigation stems from the lack of performance by the Department of Energy ("DOE") of its statutory and contractual obligations to collect spent nuclear fuel from the Pilgrim nuclear power station in Plymouth, Massachusetts. In separate suits, both the buyer and the seller of the Pilgrim station have sought damages caused by DOE's failure to perform its contractual obligations.

The seller, Boston Edison Company ("Boston Edison"), entered into a so-called Standard Contract with DOE on June 17, 1983, calling for the disposal by DOE of spent nuclear fuel ("SNF") and high-level radioactive waste ("HLW") generated at Pilgrim. *See Boston Edison Co. v. United States*, 64 Fed. Cl. 167, 170 (2005) ("*Boston Edison I*"). As a general matter, the Nuclear Waste Policy Act of 1982 ("the Act" or "NWPA") prescribed that DOE begin to dispose of SNF from nuclear power stations by January 31, 1998. *See* Pub. L. No. 97-425, § 302, 96 Stat. 2201, 2257-2261 (Jan. 7, 1983) (codified as amended at 42 U.S.C. § 10222). However, DOE has never disposed of any SNF generated at Pilgrim or at any other nuclear power station, and the recent abandonment of efforts to establish a repository for SNF and HLW at Yucca Mountain, Nevada means that the government has no plans or preparations of any kind to

[1]Because this opinion and order might have contained confidential or proprietary information within the meaning of Rule 26(c)(1)(G) of the Rules of the Court of Federal Claims ("RCFC") and the protective order entered in these partially consolidated cases, it was initially filed under seal. The parties were requested to review this decision and to provide proposed redactions of any confidential or proprietary information on or before May 12, 2010. No redactions were requested.

commence even belated performance.[2] Given the failure of performance, Boston Edison filed a complaint in this court on July 12, 1999, alleging that the United States had partially breached the Standard Contract and had breached the implied covenant of good faith and fair dealing. *Boston Edison I*, 64 Fed. Cl. at 173. One day later, on July 13, 1999, Boston Edison sold Pilgrim to Entergy Nuclear Generation Co. ("Entergy"), assigning its Standard Contract to Entergy. *Id.*; *see also Entergy Nuclear Generation Co. v. United States*, 64 Fed. Cl. 336, 338 (2005).[3] Entergy filed suit against the United States on November 5, 2003, also alleging a partial breach of the contract and breach of the implied duty of good faith and fair dealing. *See Entergy Nuclear*, 64 Fed. Cl. at 338. Thereafter, on motion by the government, the court consolidated the Boston Edison and Entergy cases "for the limited purpose of addressing issues concerning (1) contract formation, (2) contract implementation through the date of sale of the Pilgrim Nuclear Power Station, and (3) Boston Edison Company's diminution-in-value claim and the government's attendant offset claim against Entergy." *Boston Edison Co. v. United States*, 67 Fed. Cl. 63, 67 (2005) ("*Boston Edison II*"). Having thus resolved preliminary procedural issues, the court proceeded to consider Boston Edison's claims on the merits, holding a trial in June 2007. Based upon the evidentiary record developed at that trial, Boston Edison was awarded diminished-value damages of $40.03 million, based upon the fact that Boston Edison had added that amount to the decommissioning trust fund transferred upon the sale of Pilgrim to cover projected costs of

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[2]Nonetheless, the Standard Contract has never been repudiated, *see Wisconsin Elec. Power Co. v. United States*, 90 Fed. Cl. 714, 721 (2009), and the numerous SNF cases filed in this court have proceeded as instances of partial breach of a continuing contract. *See Carolina Power & Light Co. v. United States*, 573 F.3d 1271, 1273 (Fed. Cir. 2009); *Pacific Gas & Elec. Co. v. United States*, 536 F.3d 1282, 1284 (Fed. Cir. 2008) ("A series of cases has established that DOE has partially breached the contract by failing to begin its performance on January 31, 1998.") (citations omitted); *Maine Yankee Atomic Power Co. v. United States*, 225 F.3d 1336, 1343 (Fed. Cir. 2000) ("The breach involved all the utilities that had signed the contract – the entire nuclear electric industry.").

Within the past few weeks, however, two petitions have been filed in the Court of Appeals for the District of Columbia Circuit, seeking review of DOE's denial of requests to (1) suspend the fee paid by nuclear power generating facilities to the Nuclear Waste Fund as established pursuant to the NWPA, which Fund has as its purpose paying for development and operation of disposal facilities for SNF and HLW, and (2) perform the annual review of the adequacy and need for this fee as specified in Section 302(a)(4) of the NWPA, 42 U.S.C. § 10222(a)(4). *See National Ass'n of Regulatory Util. Comm'rs v. United States*, No. 10-1074 (D.C. Cir. filed Apr. 2, 2010); *Nuclear Energy Inst. v. United States Dep't of Energy*, No. 10-1076 (D.C. Cir. filed Apr. 5, 2010).

[3]Assignments of the Standard Contract were and are specifically permitted by Section 302(b)(3) of the Nuclear Waste Policy Act, codified at 42 U.S.C. § 10222(b)(3), so long as the assignment occurs "with transfer of title to the spent nuclear fuel or high-level waste involved," which transfer would occur upon sale of a facility. *See Rochester Gas & Elec. Corp. v. United States*, 65 Fed. Cl. 431, 437 (2005).

storing spent fuel after Pilgrim would have ceased operation. *See Boston Edison Co. v. United States*, 80 Fed. Cl. 468, 492 (2008) ("*Boston Edison III*").[4]

The court then turned to Entergy's claims. Entergy amended its complaint to extend the period covered by its claims from the date of its purchase of Pilgrim to and through December 31, 2008.[5] Trial was held on Entergy's claims from September 29, 2009 through October 7, 2009. The court adopted the evidentiary record from the trial of Boston Edison's claims in 2007 and heard new evidence. Following post-trial briefing and closing argument, Entergy's claims are ready for disposition.

FACTS[6]

The Nuclear Waste Policy Act of 1982 was enacted to provide a formal means of carrying out the Government's long-standing policy of assuming responsibility and providing for the timely disposition of commercial SNF and HLW. *See* 42 U.S.C. § 10131(b)(2). In the NWPA, Congress expressly acknowledged that "[a] national problem has been created by the accumulation of . . . spent nuclear fuel from nuclear reactors . . . ." 42 U.S.C. § 10131(a)(2)(A). To solve this problem, the NWPA sought to establish a firm schedule and deadline by which the Government would assume responsibility for the disposal of commercially-generated SNF. *See* 42 U.S.C. § 10131(b)(1). Utilities would pay fees into the Nuclear Waste Fund in exchange for the Government's performance of SNF and HLW disposal services beginning no later than January 31, 1998. *See Indiana Mich. Power Co. v. Department of Energy*, 88 F.3d 1272, 1277 (D.C. Cir. 1996). Pursuant to Section 302 of the NWPA, DOE created a Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste (the "Standard Contract"). *See Northern States Power Co. v. United States*, 224 F.3d 1361, 1364 (Fed. Cir. 2000). It was

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[4]The award of damages in favor of Boston Edison was embodied in a judgment issued under RCFC 54(b). Both the government and Boston Edison took appeals from that judgment, but their appeals were dismissed by the Federal Circuit on the ground that the claims of Boston Edison and Entergy were sufficiently intertwined that judgment under Rule 54(b) should not have been entered. *Boston Edison Co. v. United States*, 299 Fed. Appx. 956, 958 (Fed. Cir. 2008). The judgment in *Boston Edison* was accordingly vacated and the case remanded, without any "determination concerning the merits of the trial court's rulings." *Id*.

[5]The court previously had granted partial summary judgment in Entergy's favor on liability, leaving damages to be determined after trial. *See Entergy Nuclear*, 64 Fed. Cl. at 346.

[6]This recitation of facts constitutes the court's principal findings of fact in accord with RCFC 52(a). Other findings of fact and rulings on questions of mixed fact and law are set out in the analysis.

that contract which Boston Edison signed on June 17, 1983, for the disposal of the SNF and HLW generated by Pilgrim. BX 5 (U.S. Dept. of Energy Contract No. DE-CR01-83NE44368).[7]

In connection with its sale of the Pilgrim facility to Entergy on July 13, 1999, Boston Edison assigned its Standard Contract to Entergy. *See Entergy Nuclear*, 64 Fed. Cl. at 338; 2009 Tr. 38:15-19 (Test. of Charles Minott, Senior Project Manager for Pilgrim). Under the assignment, Boston Edison retained claims that had accrued as of the closing date, with Entergy acquiring claims accruing thereafter. *See Boston Edison I*, 64 Fed. Cl. at 173. The circumstances of that assignment preserved Boston Edison's claim and led Entergy to file its own claim in this court.

The Pilgrim Nuclear Power Station is a "boiling water" reactor plant that has been in continuous operation, with the exception of maintenance and refueling outages, since 1972. 2009 Tr. 39:2-5, 41:25 to 42:3 (Minott). The station's net output is 685 megawatts. 2009 Tr. 38:23 to 39:1 (Minott). Pilgrim is licensed for operation by the Nuclear Regulatory Commission ("the NRC" or "Commission") through June 2012. 2009 Tr. 39:6-11 (Minott). Entergy has filed a license renewal request with the Commission for an additional 20 years of operation, which application is currently pending. 2009 Tr. 39:12-20 (Minott).

Pilgrim's SNF is currently stored in its on-site spent fuel pool. 2009 Tr. 56:24 to 57:2 (Minott). The spent fuel pool is 40 feet long by 30 feet wide by 40 feet deep, is located adjacent to the structure containing Pilgrim's reactor, is lined with quarter-inch thick stainless steel, and is surrounded by approximately six to eight feet of concrete on the walls and the floor. 2009 Tr. 57:5 to 59:5 (Minott). Spent fuel assemblies are deposited in cells within stainless-steel racks located inside the pool. 2009 Tr. 67:22 to 68:9 (Minott). Prior to 1994, Pilgrim was licensed by the NRC to store up to 2,333 assemblies in its spent fuel pool. NX 1172 at 9 (Kenneth Metcalfe, Assessment of Damages, Entergy Nuclear Generation Co.'s Spent Nuclear Fuel Claim (Mar. 24, 2009) ("Metcalfe Report")); *see also* 2009 Tr. 85:15-18 (Minott). When it became apparent that DOE would not meet its obligations under the Standard Contract,[8] Boston Edison was forced to

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[7]Citations to the trial transcript from the 2007 trial are to "2007 Tr. __." Citations to the trial transcript from the 2009 trial are to "2009 Tr. __." All exhibits from the 2007 trial were adopted in the 2009 trial, with additionally introduced exhibits being assigned subsequent sequential numbers. Boston Edison's exhibits are denoted as "BX," Entergy's exhibits are denoted as "NX," and defendant's exhibits are denoted as "DX." Citations to Boston Edison's demonstrative exhibits are to "BDX," to Entergy's demonstrative exhibits are "NDX," and to the government's demonstrative exhibits are to "DDX."

[8]In 1994, DOE announced that it would be unable to begin accepting SNF from Standard Contract holders by January 31, 1998, and projected that the earliest possible date for accepting waste for disposal at a repository located at Yucca Mountain, Nevada, was 2010. *See* DOE, Waste Acceptance Issues, 59 Fed. Reg. 27,007-08 (May 25, 1994); *see also* DOE, Nuclear Waste Acceptance Issues, 60 Fed. Reg. 21,793-94 (May 3, 1995).

either increase the storage capacity of the pool, store spent fuel elsewhere, or, once spent fuel storage space was exhausted, cease operations. *See Boston Edison III*, 80 Fed. Cl. at 486-87; 2009 Tr. 87:23 to 88:2 (Minott). Boston Edison considered dry storage options, but for technical and cost-related reasons chose instead to install high-density spent fuel racks in Pilgrim's spent fuel pool. *Boston Edison III*, 80 Fed. Cl. at 487; 2009 Tr. 85:7-23 (Minott). Boston Edison sought and obtained approval from the NRC to install the high-density racks and thus increase the allowable number of assemblies that could be stored in the spent fuel pool from 2,333 to 3,859. 2009 Tr. 70:5-8 (Minott); BX 276 (NRC's Amend. No. 155 to Facility Operating License No. DPR-35 (June 22, 1994)). The high-density racks were installed over time, as needed. Boston Edison installed two high-density fuel racks prior to its sale of Pilgrim to Entergy. *Boston Edison III*, 80 Fed. Cl. at 487. Since the sale, Entergy has installed three additional high-density racks, and has also ordered a temporary rack scheduled for delivery in March 2010 for use in emergencies should additional spent-fuel capacity be needed to accommodate repairs. 2009 Tr. 88:3-21, 92:12 to 93:12 (Minott). Entergy's claim for damages arises from the costs associated with the purchase, installation, and operation of the high-density racks it installed to store the spent fuel that should have been delivered to DOE under the Standard Contract.[9]

Entergy also claims damages arising from fees imposed by NRC that Entergy attributes to DOE's breach. The NRC is required to recover its costs of regulation from the licensees that the NRC supervises. 2009 Tr. 1194:21-1195:3 (Test. of Peter Rabideau, Director, Strategic Organizational Planning, NRC); DX 469 (Revision of Fee Schedules; 100% Fee Recovery, FY 1999, 64 Fed. Reg. 31,448 (June 10, 1999) (citing the Omnibus Budget Reconciliation Act of 1990)). To this end, the NRC charges licensees various fees. Pertinent here are fees charged pursuant to 10 C.F.R. Parts 170 and 171. The fees assessed by the NRC under Part 170 are plant-specific and relate to inspection, license amendment, and other similar activities that are unique to a particular plant and are computed by the NRC based on the number of person-hours expended by the NRC in those categories of regulatory work. 2009 Tr. 182:2-14 (Test. of Steve Bethay, Director, Nuclear Safety Assurance, Entergy); 2009 Tr. 1197:17 to 1198:4 (Rabideau). Fees charged by the NRC under 10 C.F.R. Part 171 are applicable broadly to licensees and are assessed on an annual basis; they reflect costs incurred by the NRC for generic, non-site-specific activities such as engineering analyses, rule-making, and resolution of generic technical issues

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There is no foreseeable prospect that DOE will begin performance. *See* Hearing Before the H. Comm. on the Budget, 111th Cong. (2009), *available at* http:www.ocrwm.doe.gov/uploads/1/July_16_RW-1_Final_Testimony_7-14-09.pdf (Statement of Christopher A. Kouts, Acting Director of the Office of Civilian Radioactive Waste Management, DOE) (noting that DOE's fiscal year 2010 budget request "announces the Administration's intended termination of the Yucca Mountain repository Project").

[9]Entergy has not yet installed dry fuel storage at Pilgrim, but it is anticipated that a dry storage facility will be completed and brought into operation at Pilgrim in 2014. *See* 2009 Tr. 140:2-9 (Minott). Any claim for damages associated with a dry storage facility will be the subject of a future action by Entergy. *See* Entergy 2009 Post-Trial Br. at 12 n.7.

regarding new vendor components. 2009 Tr. 182:15-19, 196:16 to 197:7 (Bethay); 2009 Tr. 1198:14-23 (Rabideau).[10]

Prior to 1999, generic, non-site-specific dry-storage activity costs were charged only to plants that had dry storage facilities. 2009 Tr. 197:14-23 (Bethay). In 1999, the NRC amended Part 171 of its rules to allocate the generic, non-site-specific spent-fuel-storage activity costs, encompassing both wet-storage and dry-storage activities, to all licensees, regardless of whether licensed facilities had dry storage facilities. DX 469; 2009 Tr. 197:24 to198:2 (Bethay). Following the 1999 rule changes, Pilgrim was first assessed Part 171 fees for non-site-specific spent-fuel dry-storage activity costs. 2009 Tr. 198:3-14 (Bethay). Entergy does not currently have, nor did it have at any time following the NRC's 1999 rule change, any dry storage capabilities. 2009 Tr. at 197:8-13.

Finally, Entergy has claimed "cost of capital" damages, which it defines as the economic cost incurred by a party over time that reflects its expenditures for mitigating DOE's breach. *See* 2009 Tr. 698:4-17 (Test. of Kenneth Metcalfe, an economic expert who was called to testify by Entergy). Entergy contends that cost-of-capital damages represent actual economic damages incurred by a party in bearing expenses that it would not have had to incur absent a breach of contractual obligations. 2009 Tr. 699:16-23 (Metcalfe). Mr. Metcalfe calculated Entergy's cost-of-capital damages by taking the weighted average cost of Entergy's debt and multiplying it by the expenditures incurred by Entergy during the applicable time period in mitigating DOE's breach. 2009 Tr. 708:15 to 709:8 (Metcalfe). Entergy's claimed cost-of-capital damages total $1,396,000. NX 1172 at 11 (Metcalfe Report).

Entergy and the government also presented evidence at trial related to the decommissioning trust fund transferred from Boston Edison to Entergy in accord with the purchase and sale agreement. When Boston Edison solicited bids for the sale of Pilgrim, it indicated that it intended to transfer to the successful bidder all decommissioning responsibilities, including those associated with stored spent fuel. *See Boston Edison III*, 80 Fed. Cl. at 473. In this respect, Boston Edison advised potential bidders that it would provide a fully-funded decommissioning fund in an amount deemed sufficient by the buyer to cover the costs of decommissioning Pilgrim plus "interim fuel storage until such a time as the [DOE] takes title to the fuel." *Id*. (citing BX 93 at 0009 (Offering Memorandum); 2007 Tr. 156:9-24 (Test. of John J. Reed, Principal of Reed Consulting Group, who was retained by Boston Edison to manage the competitive auction for the Pilgrim power station). Entergy, in preparing its bid, determined that decommissioning expenses, including those associated with SNF storage, were "the largest factor" in developing its offer for the Pilgrim facility. *Boston Edison III*, 80 Fed. Cl. at 474; 2007 Tr. 2042:13 to 2043:6 (Test. of Dan Keuter, Vice President for Business Development, Entergy); BX 67 (Letter from Keuter to Michael Meisner, President, Maine Yankee Atomic Power Co. (Aug. 24, 1998)). Entergy also retained a decommissioning cost-evaluation firm that

[10]Fees for licensing activities related to a particular vendor's components are charged to that vendor. 2009 Tr. 246:9-14 (Bethay).

determined that dry storage would eventually be needed at Pilgrim and would entail significant risks and costs. *Boston Edison III*, 80 Fed. Cl. at 474. After a series of bids accompanied by negotiations, Boston Edison accepted Entergy's bid to purchase the Pilgrim plant for $80 million for the plant, inventory, fuel, and land, and agreed to transfer a decommissioning trust fund of $466 million to Entergy. *Id*. at 476.

Regulations promulgated by the NRC mandate that a decommissioning fund be established for a licensed nuclear power station and specify the activities that must be covered by monies in the fund, but those activities do not include SNF storage costs. *See Boston Edison III*, 80 Fed. Cl. at 478 (citing 10 C.F.R. § 50.75(c)). The government and Entergy asserted at the 2007 trial on Boston Edison's claims that the transfer of $466 million as a decommissioning fund excluded SNF storage costs, and that Boston Edison in effect paid Entergy nothing for such costs. *Boston Edison III*, 80 Fed. Cl. at 478. However, this court found that argument to be without merit. *Id*. at 478-80, 482-83. Rather, the amount placed into the fund, $466 million, represented Entergy's determination of the funding necessary as of April 1, 1999 to provide for decommissioning of Pilgrim beginning in 2012, plus on-site storage of SNF generated at Pilgrim through 2043. *Id*. at 476-77.

The Pilgrim sale closed on July 13, 1999, and Boston Edison transferred decommissioning trust funds to Entergy totaling $401,218,181.82, plus an additional $70 million in a provisional trust, in return for Entergy's acceptance of full responsibility for decommissioning the plant and caring for the SNF that had been generated at Pilgrim. *Boston Edison III*, 80 Fed. Cl. at 482.[11] After the closing, Entergy was required to provide annual reports to the NRC regarding the status of the decommissioning trust fund. *Id*. Initially, Entergy reported only a portion of the total fund available to it. *Id*. (citing BX 367 (1999 Decommissioning Funding Assurance Report (Mar. 20, 2000) ("The NRC formulas and the calculated fund amounts herein exclude the cost of dismantling or demolishing non-radiological systems and structures as well as costs to manage and store spent fuel until transfer to DOE.")). However, beginning in 2003, Entergy began reporting the entirety of the decommissioning trust fund as applicable to decommissioning. *Id*.

The decommissioning fund for Pilgrim is governed by a "Boston Edison Company Master Decommissioning Trust Agreement for Pilgrim Nuclear Power Station" ("Master Trust Agreement"), effective January 1, 1995, executed by Boston Edison and Bank of New York. *See* NX 1174 (Master Trust Agreement). By amendments, Entergy and Mellon Bank were substituted as the parties to the Master Trust Agreement. *See* NX 1175-B; NX 1175-C. The "exclusive purpose" of the Master Trust Agreement is "to accumulate and hold funds for the contemplated Decommissioning of the Unit(s) and to expend funds for that purpose." NX 1174

[11]The terms of the provisional trust related to obtaining a private letter ruling from the Internal Revenue Service. *See Boston Edison III*, 80 Fed. Cl. at 482 n.15. Such a ruling was obtained, and Boston Edison was refunded $43,338,980.32. *Id*. As a result, the net amount of the decommissioning trust fund transferred by Boston Edison was $427,879,201.50. *Id*.

at 7 (§ 2.01 Master Trust Agreement). The Master Trust Agreement defines "decommissioning" as "the removal of the Unit from service and disposal of its components in accordance with Applicable Law." *Id*. at 4 (§ 1.01(10) Definitions – "Decommissioning").[12] To date, Entergy has not taken any steps toward removing Pilgrim from service and disposing of its components. 2009 Tr. 126:12-15 (Minott).

In 2002 or early 2003, Mr. Minott, then a Senior Project Manager at Pilgrim, proposed that Entergy create a subaccount within the trust to allow for more flexibility regarding use of trust funds for post-shutdown spent fuel storage. 2009 Tr. 129:4-22 (Minott). However, no action was ever taken on this proposal. 2009 Tr. 130:24-25 (Minott).

STANDARDS FOR DECISION

The remedy for breach of an express contract "is damages sufficient to place the injured party in as good a position as it would have been had the breaching party fully performed." *Indiana Mich. Power Co. v. United States*, 422 F.3d 1369, 1373 (Fed. Cir. 2005) (citing *San Carlos Irrigation & Drainage Dist. v. United States*, 111 F.3d 1557, 1562 (Fed. Cir. 1997)); *see also System Fuels, Inc. v. United States*, 79 Fed. Cl. 37, 51 (2007); *Tennessee Valley Auth. v. United States*, 69 Fed. Cl. 515, 522 (2006), *appeal dismissed*, 188 Fed. Appx. 1004 (Fed. Cir. 2006). "[T]he general principle is that all losses, however described, are recoverable." *Indiana Michigan*, 422 F.3d at 1373 (quoting *Restatement (Second) of Contracts* § 347 cmt. c (1981)).

To recover damages, Entergy bears the burden of proof to show that (1) the damages were reasonably foreseeable by the breaching party at the time of contracting, (2) the breach is a substantial causal factor in the damages, and (3) the damages are shown with reasonable certainty. *Indiana Michigan*, 422 F.3d at 1373 (citing *Energy Capital Corp. v. United States*, 302 F.3d 1314, 1320 (Fed. Cir. 2002)). Damages must also be directly caused by defendant's

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[12]The Master Trust Agreement's definition of "decommissioning" further provides:

> This process shall include, but not be limited to, (a) pre-shutdown activities related to its removal and disposal including studies, planning, licensing, regulatory filings and non-DOE spent fuel storage, (b) work done to prepare and carry out DECON, ENTOMB, [or] SAFSTOR (as defined by the NRC) of the Unit and Site, whichever is applicable, (c) the removal of radioactively contaminated and radioactively uncontaminated portions of the Unit and disposing of the same at the end of the operating life of the Unit, (d) work done to the Site and the Unit's associated equipment and facilities and to other areas, whether or not such areas are contiguous to the Site and equipment and facilities, in order to decontaminate such Site and such areas, and (e) work done by or on behalf of the Company (or for which the Company is charged) to a facility where any portion of the Unit and its associated equipment and facilities are to be disposed of in order to prepare and maintain such facility as a disposal site.

NX 1174 (§ 1.01(10) Definitions – "Decommissioning").

breach and not be too remote. *See Wells Fargo Bank, N.A. v. United States*, 88 F.3d 1012, 1021 (Fed. Cir. 1996) ("'[R]emote and consequential damages are not recoverable in a common-law suit for breach of contract . . . especially . . . in suits against the United States for the recovery of common-law damages.'") (quoting *Northern Helex Co. v. United States*, 524 F.2d 707, 720 (Ct. Cl. 1975)). Although causation must be directly established, the breach need not be the sole cause of the damages. *California Fed. Bank v. United States*, 395 F.3d 1263, 1267-68 (Fed. Cir. 2005). Additionally, while speculative damages are not recoverable, "'where responsibility for damages is clear, it is not essential that the amount thereof be ascertainable with absolute exactness or mathematical precision.'" *San Carlos Irrigation & Drainage Dist.*, 111 F.3d at 1563 (quoting *Electronic & Missile Facilities, Inc. v. United States*, 416 F.2d 1345, 1358 (Ct. Cl. 1969)).

If a party to a contract provides notice that it does not intend to perform under the contract, the other, non-breaching party acquires an obligation to mitigate its losses or damages: "'[O]nce a party has reason to know that performance by the other party will not be forthcoming, . . . he is expected to take such affirmative steps as are appropriate in the circumstances to avoid loss by making substitute arrangements or otherwise.'" *Indiana Michigan*, 422 F.3d at 1375 (quoting *Restatement (Second) of Contracts* § 350 cmt. b); *see also Citizens Fed. Bank v. United States*, 474 F.3d 1314, 1320 (Fed. Cir. 2007) (same); *Tennessee Valley Auth. v. United States*, 60 Fed. Cl. 665, 674 (2004) (same). Typically, a mitigating, non-breaching party is entitled to recover its expenses of mitigating the breach, specifically its costs of arranging alternatives to the breaching party's required performance. Numerous other spent nuclear fuel cases that have addressed an alleged breach of the Standard Contract have focused on this measure of damages. *See*, *e.g.*, *Pacific Gas & Elec. Co. v. United States*, __ Fed. Cl. __, __, 2010 WL 1270206, at *2 (2010); *Energy Nw. v. United States*, 91 Fed. Cl. 531, 540-41 (2010); *Wisconsin Elec.*, 90 Fed. Cl. at 769-82; *Dairyland Power Coop. v. United States*, 90 Fed. Cl. 615, 623 (2009); *Dominion Res., Inc. v. United States*, 84 Fed. Cl. 259 (2008); *Carolina Power & Light Co. v. United States*, 82 Fed. Cl. 23, 41 (2008), *amended in another respect on reconsideration*, 82 Fed. Cl. 317, *aff'd in pertinent part, vacated in part, and remanded*, 573 F.3d 1271; *System Fuels*, 79 Fed. Cl. at 53-55; *System Fuels, Inc. v. United States*, 78 Fed. Cl. 769, 788 (2007); *Northern States Power Co. v. United States*, 78 Fed. Cl. 449, 457-59 (2007); *Southern Nuclear Operating Co. v. United States*, 77 Fed. Cl. 396, 403-04 (2007); *Tennessee Valley Auth.*, 69 Fed. Cl. at 522.

The party obligated to mitigate may recover as damages its reasonable costs incurred in doing so. However, the government may seek to eliminate or reduce mitigation-related damages by making a showing that the claimant's mitigation efforts were unreasonable. *See Indiana Michigan*, 422 F.3d at 1375. A non-breaching party is "'not precluded from recovery . . . to the extent that [it] has made reasonable but unsuccessful efforts to avoid loss.'" *Id*. (quoting *Restatement (Second) of Contracts* § 350(2)); *see also First Heights Bank, FSB v. United States*, 422 F.3d 1311, 1316-17 (Fed. Cir. 2005); *Tennessee Valley Auth.*, 69 Fed. Cl. at 523.

ANALYSIS

I. ENTERGY'S CLAIMS

Entergy seeks mitigation damages through December 31, 2008 for costs incurred for the continuing on-site storage of SNF at Pilgrim. It seeks damages for (1) costs associated with multiple re-rackings of the Pilgrim SNF pool required to increase the pool's capacity for the extended storage of SNF, (2) the payment of fees imposed by NRC that Entergy attributes to DOE's failure to perform its obligations under the Standard Contract, and (3) "cost of capital" damages.

A. High-Density Racks

1. *Foreseeability.*

To recover mitigation damages, Entergy must prove that its costs were foreseeable as a probable result of the breach. "'Foreseeability is a question of fact.'" *Landmark Land Co., Inc. v. F.D.I.C.*, 256 F.3d 1365, 1379 (Fed. Cir. 2001) (quoting *Climatic Rainwear Co., Inc. v. United States*, 88 F. Supp. 415 (Ct. Cl. 1950)). A loss is foreseeable if it "follows from the breach (a) in the ordinary course of events, or (b) as a result of special circumstances, beyond the ordinary course of events that the party in breach had reason to know." *Restatement (Second) of Contracts* § 351(2). This required element of proof "reflects the principle that a breaching party should not be liable for damages that 'it did not at the time of contracting have reason to foresee as a probable result of such a breach.'" *Citizens Fed. Bank*, 474 F.3d at 1321 (quoting *Restatement (Second) of Contracts* § 351 cmt. a). *Compare Indiana Michigan*, 422 F.3d at 1376 (government not liable for money that utility invested in a private SNF storage facility because the ultimately unsuccessful venture was "too speculative" and therefore unforeseeable), *with Dominion Resources*, 84 Fed. Cl. at 274 (finding as foreseeable the cost of a heat-load analysis that was performed before re-racking the spent fuel pool, which analysis was made necessary by DOE's partial breach). Entergy must demonstrate that both the magnitude and type of damages were foreseeable at the time of contract formation. *See Landmark Land*, 256 F.3d at 1378-79 (affirming the trial court's denial of damages because the magnitude of damages was not foreseeable).

Given DOE's failure of performance under the Standard Contract, the cost of additional on-site storage at Pilgrim was inherently foreseeable. The government stresses Entergy's burden of proof but does not dispute this fundamental circumstance. *See* Def.'s 2010 Post-Trial Br. at 12-13. When DOE entered into the Standard Contract, it knew that utilities would have to arrange for the storage of their SNF if DOE did not meet its obligations. Pilgrim's re-racking costs were not attributable to a speculative venture, *see Indiana Michigan*, 422 F.3d at 1376, but rather resulted from the implementation of a plan deemed to be the most technologically practical and financially sound way to mitigate the damage from DOE's breach. *See Boston Edison III*, 80 Fed. Cl. at 487; 2009 Tr. 85:7-23 (Minott). The costs associated with Pilgrim's decision to

increase the storage capacity of its spent fuel pool were foreseeable both in magnitude and in type. *See, e.g.*, *Dominion Resources*, 84 Fed. Cl. at 274 (finding it foreseeable that heat load analysis would be needed to re-rack SNF).

2. *Causation.*

Courts in SNF cases have diverged as to which of two standards to apply regarding causation, the "substantial factor" test or the "but-for" test. The Federal Circuit has stated that "the selection of an appropriate causation standard depends upon the facts of the particular case and lies largely within the trial court's discretion." *Citizens Fed. Bank*, 474 F.3d at 1318. In practice, the "substantial factor" test and the "but-for" test "generally yield identical results." *Abbott Labs. v. Brennan*, 952 F.2d 1346, 1352-53 (Fed. Cir. 1991). This court will apply the more generally used and more stringent "but-for" causation standard. *See Yankee Atomic Elec. Co. v. United States*, 536 F.3d 1268, 1272 (Fed. Cir. 2008) ("but-for" test preferred to "substantial factor" test, although trial courts have discretion to apply either); *see also Dominion Resources*, 84 Fed. Cl. at 270; *Carolina Power & Light Co.*, 82 Fed. Cl. at 42-43. The but-for standard requires the plaintiff to "show that but for the breach, the damages alleged would not have been suffered." *San Carlos Irrigation & Drainage Dist.*, 111 F.3d at 1563. The causal connection between the breach and the claimed damages must be "definitely established," but that is not to say that the breach must be the "sole factor or sole cause" for the claimed damages. *American Fed. Bank, FSB v. United States*, 72 Fed. Cl. 586, 598, 601 (2006) (citing *California Fed. Bank*, 395 F.3d at 1268), *aff'd*, 295 Fed. Appx. 368 (Fed. Cir. 2008).

The causation element has been met respecting re-racking costs. "Had DOE performed under the Standard Contract, Boston Edison would not have needed any additional high density racks. The proofs at trial demonstrate that Pilgrim's re-racking efforts were attributable to the government's breach, and that these costs would have been unnecessary had the government performed its statutory and contractual obligations." *Boston Edison III*, 80 Fed. Cl. at 487 n.18 (citations omitted). Entergy had no reason, other than the government's breach, to install additional racks in the Pilgrim spent fuel pool. *See* 2009 Tr. 84:14-23 (Minott). But for the government's breach, these costs would not have been incurred; therefore, DOE's breach is a direct cause of the re-racking costs.

Nonetheless, the government contends that Entergy has not depicted a plausible non-breach world against which to determine whether costs would have been incurred but for the breach. Specifically, the government avers that Entergy should have modeled the effect of Greater-than-Class-C ("GTCC") waste upon its allocation rights under the Standard Contract. *See* Def.'s 2010 Post-Trial Br. at 27.[13] This contention has its genesis in the Federal Circuit's

[13]GTCC waste is classified as a radioactive waste. *See* 10 C.F.R. § 61.55(a) (classifying radioactive waste based on the radionuclide concentration in specific types of waste). 2009 Tr. 1539:17 to 1540:2 (Test. of Eileen Supko, Entergy's expert witness on the regulatory regime in the United States applicable to GTCC waste, and on the effect the disposal of GTCC waste

decision in *Yankee Atomic*, holding that GTCC waste qualifies as HLW under the Standard Contract and therefore that the government was contractually obligated to accept it in addition to SNF. 536 F.3d at 1278-79. Entergy is not seeking any damages for DOE's failure to accept GTCC waste during the claims period, *see* Entergy's 2009 Post-Trial Br. at 40, but the government's hypothesis is that acceptance of GTCC waste in the non-breach world might affect the acceptance and disposal of all the utilities' SNF, including that from Pilgrim, by slowing the acceptance queue.

The government's contention is not borne out by the record. The 1987 annual capacity report ("ACR")[14] explicitly states that HLW (of which GTCC waste is a part) would not be accepted prior to 2008. DX 47 at 7 (June 1987 ACR, Tbl. 2.1, n.*); DX 48 at 61 (June 1987 Mission Plan Amendment, Tbl. F-1) (showing two distinct waste acceptance streams, one for spent nuclear fuel and another, beginning in 2008, for HLW). Because GTCC waste would not have been accepted by DOE during the first ten years of performance, it would have had no effect on the SNF acceptance queue for that period of time.

The government persists by asserting that GTCC waste may have been accepted in the same queue as SNF, and that Entergy bears the burden of modeling such a scenario. *See* Def.'s 2010 Post-Trial Br. at 28-29. Entergy responds that the government has the obligation under the

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would have had on DOE's acceptance queue). GTCC waste has a relatively high concentration of radionuclides and is generally unsuitable for near-surface disposal. 2009 Tr. 1540:22 to 1541:1 (Supko). The primary source of GTCC waste in commercial nuclear power plants is the internal metal components of the reactor, which are bombarded over the life of the reactor's operation such that they become highly radioactive. 2009 Tr. 1563:17 to 1564:4 (Supko). However, so long as the internal reactor materials remain in the reactor core and the reactor remains active, the components continue to be useful and do not constitute "waste" until the plant shuts down for decommissioning and the reactor core is dismantled. 2009 Tr. 1564:5-10 (Supko). After shutdown, characterization of the metal components of the reactor core may not occur for several decades, especially if a shutdown reactor is located on a site with other operating nuclear reactors and the shutdown reactor will not be decommissioned until the other operating reactors cease operation. 2009 Tr. 1575:8-22 (Supko). Some internal components of a reactor may be disposed of without generating GTCC waste through concentration averaging, which packages materials having higher radionuclide concentrations with those having lower concentrations and for which the NRC permits disposal as lower-level waste. 2009 Tr. 1566:2 to 1568:12 (Supko). Some utilities have used concentration averaging to dispose of their reactor vessels during decommissioning to avoid generating any GTCC waste. 2009 Tr. 1569:22 to 1570:22 (Supko).

[14]The Standard Contract required DOE to issue an ACR every year, beginning no later than July 1, 1987, to project DOE's annual spent fuel receiving capacity for the ten years following the expected commencement of operation of the initial DOE facility. *See Carolina Power & Light*, 82 Fed. Cl. at 29.

Standard Contract to provide acceptance criteria and a schedule for the removal of HLW, which it had not done for years prior to 2008, and therefore that Entergy does not need to develop various scenarios which DOE might have considered. Entergy's 2009 Post-Trial Br. at 41-42. The facts of record show, however, that this controverted point is without any meaningful consequence. Even if GTCC waste were included in the SNF queue, it would not affect the acceptance rate of Pilgrim's SNF, and hence would have no impact on Entergy's mitigation costs. The earliest date that any reactor-vessel GTCC waste could be ranked in any acceptance priority ranking ("APR") would be when a reactor was shut down, a date when GTCC material could be considered "waste." *See* 2009 Tr. 1576:10 to 1577:10 (Supko). If GTCC waste were to have been accepted by DOE in the same queue as SNF and prioritized based on reactor shut-down date, the first canister of GTCC waste would have come from the Rancho Seco plant, which shut down in 1989. 2009 Tr. 1597:1-11 (Supko). The 1989 Rancho Seco canister of GTCC waste would not have had priority over any of Pilgrim's acceptance rights for the period between 1998 and 2008; all of Pilgrim's SNF allocation during this period would have had priority. *See* 2009 Tr. 1597:23 to 1598:12 (Supko) (explaining that the Pilgrim SNF to be accepted by DOE through 2008 was generated no later than 1986, giving it priority over any GTCC waste generated in 1989).[15] The government's attempt to raise the issue of GTCC waste as a defense to Entergy's damages claims consequently is unavailing.

3. *Reasonable certainty as to damages.*

"To establish the quantum of its damages with reasonable certainty, [Entergy] need not make a showing of 'absolute exactness or mathematical precision,'" *Boston Edison III*, 80 Fed. Cl. at 488 (quoting *Indiana Michigan*, 422 F.3d at 1373), but Entergy must provide appropriate documentary or other support from its records to enable the court to make a "fair and reasonable approximation" of damages. *See National Austl. Bank v. United States*, 452 F.3d 1321, 1327 (Fed. Cir. 2006); *Rosenburg Lumber Co. v. Hadigan*, 978 F.2d 660, 667 (Fed. Cir. 1992).

a. *Direct costs.*

To mitigate DOE's partial breach of the Standard Contract, Boston Edison sought and obtained an amendment of the NRC license for Pilgrim to allow installation of high-density racks and thus increase the amount of SNF that could be stored in the Pilgrim spent fuel pool. *See* 2009 Tr. 85:17-23 (Minott); BX 276 (NRC's Amend. No. 155 to Facility Operating License No. DPR-35). As noted earlier, this license amendment increased the allowable number of spent fuel assemblies that could be stored in the pool from 2,333 assemblies to 3,859. 2009 Tr. 70:5-8, 85:15-18 (Minott).

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[15]Ms. Supko calculated the impact of GTCC waste on Pilgrim's SNF acceptance using other "trigger" dates, such as the date of the segmentation of the internal reactor components and the date canisters with the components were packaged and made available for disposal. Under these scenarios, Pilgrim's SNF acceptance also would not have been affected within the damages period. *See* 2009 Tr. 1598:17 to 1601:3 (Supko).

In 2000, the effective capacity of the Pilgrim spent fuel pool, meaning the maximum number of assemblies that could be stored in the spent fuel pool consistent with Pilgrim's license, was 2,251, after subtracting 60 unusable spaces, allowing for a full core reserve of 580 assemblies, and not accounting for additional high-density racks. 2009 Tr. 535:1-14 (Metcalfe). Under the rates set forth in the 1987 ACR and applying Entergy's corresponding acceptance rights, in the non-breach world DOE would have removed 1,366 assemblies from the Pilgrim spent fuel pool between 1998 and December 2008. 2009 Tr. 549:10-14 (Metcalfe). Therefore, in the non-breach world, racks N3, N4, N5, and N6 would not have been necessary as the effective capacity of the pool would have been sufficient without installation and use of these racks. 2009 Tr. 536:4-12 (Metcalfe).

To maintain full core reserve, Entergy purchased four racks (N3, N4, N5, and N6) and installed three of them (N3, N4, and N5). *See* NX 1021 at 004878 (Fig. 1.3, Pilgrim Spent Fuel Pool – Final Reracked Configuration). Absent the additional racks, the spent fuel pool could not have accommodated a full core offload. *See* NX 1021 at 004875 (regarding racks N3 and N4); NX 1029 at 004915 (regarding racks N5 and N6); 2009 Tr. 96:2-9, 104:18 to 105:4 (Minott). Rack N3 was installed in 2000 and Rack N4 was installed around 2005. 2009 Tr. 102:25 to 103:4 (Minott). Rack N5 was delivered in November 2008 and installed the next month. 2009 Tr. 104:6-14 (Minott). Rack N6 is a temporary rack that is designed to be used when necessary in the cask pad area, and removed from the pool when and if it is not needed. 2009 Tr. 88:17-21 (Minott).[16]

Entergy seeks damages of $2,932,000 related to its need for the additional spent fuel storage racks. 2009 Tr. 83:22-24 (Minott). This amount represents the costs associated with purchasing and installing racks N3, N4, and N5 and purchasing, but not installing, rack N6. 2009 Tr. 83:21 to 84:7 (Minott); 2009 Tr. 551:11-22 (Metcalfe). Mr. Minott derived these damages based upon Entergy's work orders, which capture costs associated with capital projects. 2009 Tr. 89:2-8 (Minott). Work Order 79656, totaling $971,000, covers the costs associated with the purchase and installation of racks N3 and N4; work order 79985, totaling $1,961,000 covers the same elements for rack N5 and the acquisition cost for rack N6. 2009 Tr. 90:15 to 91:11 (Minott). The entirety of this amount was paid by Entergy. 2009 Tr. 84:8-13 (Minott).

The government accepts the calculation of the great majority of Entergy's re-racking costs, challenging only Entergy's entitlement to overhead costs, and asking the court to exclude $39,512 in labor costs which it asserts are not supported by proper documentation. *See* Def.'s 2010 Post-Trial Br. at 41. Regarding the labor costs, Entergy responds that this cost was incurred by the refueling-floor crew and maintenance and radiation-protection employees, as part of a

[16]Rack N6 cannot permanently occupy the cask pad area because the area is necessary for cask loading operations. 2009 Tr. 100:9 to 101:1 (Minott). Rack N6 would permit full core offload if necessary in 2012-2013 to allow Entergy to perform temporary emergency repairs; after any such repairs had been completed, the fuel would be reloaded into the reactor and rack N6 removed from the pool. 2009 Tr. 92:12 to 93:12 (Minott).

four-week effort to clean the areas of the spent fuel pool where the new racks would be installed. *See* 2009 Tr. 109:21 to 110:17 (Minott). The claimed amount is reflected in a journal transaction shifting the labor costs from a generic account to the spent-fuel-rack project. *See* 2009 Tr. 109:15-20 (Minott); NX 1032 at 004188 to 004192 (Entergy Journal Totals Report).[17] The journal transaction lists the amount only as a single "lump sum," without delineating the number of hours worked by particular individuals or the precise activities performed. *See* 2009 Tr. 1302:1-21 (Test. of Robert Peterson, an expert witness who testified on behalf of the government about accounting for damages). However, Mr. Minott specifically testified that four weeks of pool-cleaning effort were needed before the new racks could be installed. 2009 Tr. 109:21 to 110:17 (Minott). He also testified that the labor was originally allocated to the generic expense account, that the journal transaction served to transfer the time to the correct and appropriate work order, 2009 Tr. 110:18 to 111:4 (Minott), and that the journal transaction represented the hours contained in Entergy's accounting system. 2009 Tr. 108:20-22 (Minott). Although no detailed breakdown of the transferred labor hours was provided, Mr. Minott's testimony suffices to support the labor-charge time as a "fair and reasonable approximation" of damages, particularly because the government does not contend that the amount was excessive. *See National Austl. Bank*, 452 F.3d at 1327.

b. *Loader costs.*

Entergy's damages claim includes approximately $408,000 in overhead costs, consisting of $272,000 for materials-loader costs and $136,000 for capital-suspense loader costs. 2009 Tr. 300:24 to 301:2 (Test. of Diane Bryars, Manager, Management Reporting, Entergy); 2009 Tr. 665:7 to 666:3 (Test of Lisa Dabello Saragusa, Manager, Source System Accounting, Entergy). Loaders are forms of overhead that support more than one project. They represent real costs that are not readily identifiable to a single activity. *See* 2009 Tr. 728:8-11 (Metcalfe). Generally Accepted Accounting Principles ("GAAP"), regulations adopted by the Federal Energy Regulatory Commission ("FERC"),[18] and other standard accounting rules and principles all

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[17]At Entergy, a journal transaction is used to transfer charges or make entries for charges such that costs may be appropriately assigned to specific projects where such costs were initially captured in a central location or to correct erroneous labor reporting on time sheets. *See* 2009 Tr. 107:15 to 108:1 (Minott). Entergy regularly creates journal transactions in the ordinary course of its business. 2009 Tr. 108:2-25 (Minott).

[18]FERC accounting guidelines address capture of materials-loader charges in a specific account. *See* 18 C.F.R. § 101 (Balance Sheet Accounts, 163 Stores expense undistributed); 2009 Tr. 298:20 to 299:15 (Bryars). The instructions in the regulations for Account 163 state that "[t]his account shall be cleared by adding to the cost of materials and supplies issued a suitable loading charge which will distribute the expense equitably over stores issues [*sic*]." 18 C.F.R. § 101 (Balance Sheet Accounts, 163 Stores expense undistributed, ¶ B.). This regulation requires that overheads be distributed so that one project does not bear a disproportionate share of overheads relative to other projects. 2009 Tr. 307:2-10 (Bryars).

recognize the use of overhead pools as a proper means of accounting for such costs. 2009 Tr. 725:10 to 726:2 (Metcalfe); *see also System Fuels*, 79 Fed. Cl. at 63-64.

A materials loader is a type of overhead that applies the costs incurred in operation of a storeroom, including procurement, to materials used in projects. 2009 Tr. 296:20 to 297:2 (Bryars). This loader assigns the overhead cost of material drawn from a storeroom or warehouse for use in a particular job conducted at the plant. 2009 Tr. 297:10-20 (Bryars). Costs captured by the materials loader include the fully loaded payroll cost and expenses of storeroom personnel and the supply chain or purchasing group, as well as costs related to corporate support groups, including accounting and information-technology personnel. 2009 Tr. 297:21 to 298:6 (Bryars).

The materials-loader rate was developed by accountants on the source-system accounting team and approved by the director of the finance operation center. 2009 Tr. 301:8-13 (Bryars). The rate was forecast by analyzing the ratio between overhead and inventory during the operating cycle, or the period between nuclear refueling outages. 2009 Tr. 300:3-19 (Bryars). The rate was unique to each plant, as each plant has a different level of activity at any given time. 2009 Tr. 301:14-23 (Bryars). The rate was reviewed monthly to ensure that no substantial variances had occurred. 2009 Tr. 304:2-21 (Bryars).

Entergy's capital-suspense loader is a charge to a capital project that is associated with capital expenditures but that cannot be directly associated with specific purchases of items employed in a capital project. 2009 Tr. 652:14-22 (Dabello Saragusa). This loader captures engineering and capital-monitoring costs and allocates those costs to all capital projects that benefit from the services. 2009 Tr. 652:23 to 653:4 (Dabello Saragusa).[19]

Entergy has a capital-suspense policy that provides guidance on when employees may charge time to the capital-suspense pool. *See* 2009 Tr. 654:14-18 (Dabello Saragusa). Under that guidance, employees charge time to the capital-suspense pool in two instances: first, when the employee is providing services in less than 30-minute increments associated with particular projects; and second, when the employee is working on something that benefits all capital work, such as an engineer attending a conference incident to maintaining professional certifications. 2009 Tr. 655:1-16, 660:1-18 (Dabello Saragusa).

The capital-suspense pool captures two categories of costs. 2009 Tr. 655:17-20 (Dabello Saragusa). The first category includes administrative and general ("A&G") costs associated with the property-accounting team and other individuals at Entergy that monitor capital expenditures

[19]The capital-suspense loader also is governed by FERC guidelines. *See* 18 C.F.R. § 101 (Balance Sheet Accounts, 107 Construction work in progress – Electric); 2009 Tr. 653:13-16 (Dabello Saragusa). Entergy also complies with GAAP when assessing the capital-suspense loader. 2009 Tr. 664:12-19 (Dabello Saragusa).

for all of Entergy. 2009 Tr. 655:20-25 (Dabello Saragusa).[20] A&G costs are allocated throughout the company for all capital spending at Entergy. 2009 Tr. 655:25 to 656:2 (Dabello Saragusa). The employees supporting these functions charge their time to the A&G code, and the property-accounting team then allocates those costs across all projects that have capital spending for that particular month. 2009 Tr. 657:10-20 (Dabello Saragusa).

A second category of costs included within Entergy's capital-suspense loader pool is referred to as "nuclear functional specific" and is comprised of (1) costs associated with corporate employees that monitor spending and project codes at Entergy's Nuclear Northeast headquarters in White Plains, New York, and (2) site specific costs associated with engineering used to support all capital projects on site. 2009 Tr. 656:3 to 657:6 (Dabello Saragusa). Costs are charged to two distinct nuclear-specific project codes: one account is for the support employees located at the Nuclear Northeast headquarters, and the other is for the employees at the specific nuclear station. 2009 Tr. 658:16 to 659:6 (Dabello Saragusa). The rates applied to individual sites vary based on the amount of capital spending allowances or budgeted expenditures at each site, which rates are determined and reviewed on a quarterly basis. 2009 Tr. 662:24 to 663:15 (Dabello Saragusa). Capital-suspense loader costs totaling $136,000 were incurred in 2008 and were included in the claim. *See* 2009 Tr. 692:9-15 (Dabello Saragusa).

The government objects to recovery by Entergy of its overhead costs on the ground that Entergy's capital-suspense and materials-loader pools were not tied to the re-racking projects but rather behaved as fixed costs. *See* Def.'s 2010 Post-Trial Br. at 32 (citing 2009 Tr. 1318:14 to 1338:16 (Peterson)). As the government would have it, Entergy cannot recover overhead costs that were not "incremental," *i.e.*, that would have been incurred regardless of DOE's delay. *See id*. at 31-32. Mr. Peterson opined that the loaders did not vary as a function of the existence or non-existence of the re-racking projects for which Entergy seeks compensation. 2009 Tr. 1323:2-23, 1324:14 to 1325:5, 1334:16 to 1338:16 (Peterson).

The government has argued in other SNF cases that plaintiffs should not recover overhead costs because such costs are fixed costs and not incremental to the breach, but the court has repeatedly rejected that position. *See Dominion Resources*, 84 Fed. Cl. at 281; *Carolina Power & Light*, 82 Fed. Cl. at 48, *aff'd in pertinent part*, 573 F.3d at 1276-77; *System Fuels*, 79 Fed. Cl. at 63-66;[21] *see also Tennessee Valley Auth.*, 69 Fed. Cl. at 542 (disallowing overhead

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[20]The property-accounting team is responsible for capital oversight, including determining whether a project qualifies as a capital project, approving all project codes, reporting, accumulating, and dispersing allocations on a monthly basis, and handling depreciation and retirement of assets. 2009 Tr. at 650:24 to 651:13 (Dabello Saragusa).

[21]In *System Fuels*, this court focused on two other issues: first, whether the costs were excessive and therefore unreasonable; and second, whether the incurred costs were directly connected to the mitigating activity. *See* 79 Fed. Cl. at 63-66. The court disallowed a capital-suspense-loader claim which it deemed to be excessive, *see id*. at 64-65, allowed a materials-

costs because plaintiff failed to present evidence establishing utility of costs to breach-related projects). In *Carolina Power & Light*, the court held that the plaintiff utilities could recover overhead costs even though most of the costs "d[id] not change with the volume of business activity." 82 Fed. Cl. at 48. The court saw "no basis in law or logic for [the government's] position," explaining:

> If no overhead charges were allocated to the mitigation projects, [p]laintiffs' other projects would be more expensive than anticipated. Overhead, by definition, is a cost of doing business, and for some period of time, part of [plaintiff's] "business" was mitigating DOE's partial breach. Overhead recovery is necessary to compensate [p]laintiffs fully.

Id. (citations omitted). The court found the loader costs to be appropriate because the "[p]laintiffs' overhead costs were [actually] incurred and [were] properly attributable to mitigation projects and activities." *Id*.; *see also Dominion Resources*, 84 Fed. Cl. at 281 (same). In upholding the decision in *Carolina Power & Light*, the Federal Circuit cited three reasons: first, the evidence established that actual resources represented by the loaders had been directed to mitigation projects; second, the overhead had been properly allocated; and third, "other activities would have assumed a disproportionate amount of the total overhead costs" if the claims for the loaders were disallowed. 573 F.3d at 1276-77.[22]

Entergy has presented sufficient evidence to establish, and the government does not dispute, that its overhead costs were actually incurred. *See* 2009 Tr. 301:3-7 (Bryars); 2009 Tr. 655:7 to 656:17 (Dabello Saragusa); Def.'s 2010 Post-Trial Br. at 34 ("We do not suggest that any work charged to the overhead pools at issue was not performed by [Entergy] or [by] its parent company."); 2009 Tr. 1467:6-15, 1489:19 to 1490:11 (Peterson). Therefore, the pertinent

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loader claim because it "ha[d] a specific focus in the activities to supply tools and materials for the mitigating activities," *id*. at 65 (finding that plaintiff's decision to "conduct . . . these activities through a central unit" was supported by "[r]udimentary concerns over control and efficiency"), and disallowed a portion of a payroll loader related to employee pension and retirement plans of past retirees and officers and executives because "a direct connection to internal labor costs incurred on the mitigation [was] absent or . . . tenuous at best." *Id*. at 65-66 (court unable to differentiate between charges related to pension plans for current employees working on dry storage activities and past employees working in those activities).

[22]The government urges this court to depart from the decision in *Carolina Power & Light* because the Federal Circuit merely held that the lower court "did not 'clearly err'" in awarding overhead costs. Def.'s 2010 Post-Trial Br. at 31 (citing *Carolina Power & Light*, 573 F.3d at 1277). That the trial court has some "discretion in assessing an appropriate quantum of damages," *Carolina Power & Light*, 573 F.3d at 1276, is not an affirmative reason for reaching a contrary result.

question is whether the loader costs claimed by Entergy are properly attributable to, *i.e.*, incurred as a consequence of, the re-racking projects.

Both of Entergy's claimed loaders were explicitly tied to activity involving the re-racking projects. The materials-loader rate was forecast by analyzing the ratio between overhead and inventory during the operating cycle of the power station, *i.e.*, the period between nuclear refueling outages. 2009 Tr. 300:3-19 (Bryars). The loader was applied to the re-racking project on the basis of the value of material provided for the re-racking project. 2009 Tr. 303:6-20 (Bryars). The capital-suspense loader rate varied between different sites depending on capital-project spending. *See* 2009 Tr. 662:24 to 663:15 (Dabello Saragusa). The capital-suspense loader costs in the A&G category were allocated to all projects associated with capital that benefitted from those services. 2009 Tr. 657:10-20 (Dabello Saragusa). Capital-suspense loader costs in the "nuclear specific" category were accumulated on a monthly basis and then allocated to capital projects at nuclear sites according to a predetermined rate. 2009 Tr. 657:16 to 658:6 (Dabello Saragusa). Thus, hypothetically, if the rate were determined to be 4 percent for a given month, each item for a capital project in that month would reflect cost plus an additional 4 percent to capture pooled expenses. 2009 Tr. 661:5-15 (Dabello Saragusa). Based upon this evidentiary record, Entergy has made a sufficient showing that its claimed loader costs were attributable to the re-racking projects. "Absent DOE's partial breach, plaintiff[] could have allocated [its] resources to other projects." *Dominion Res.*, 84 Fed. Cl. at 281. Accordingly, Entergy shall be awarded damages for the material loader and capital suspense loader applied to its re-racking projects.

B. NRC Fees

As part of its damages claim, Entergy seeks $1,368,787 associated with NRC's assessment of generic annual fees from 1999 through 2008 that Entergy attributes to DOE's breach. This claim stems from a change made in 1999 by the NRC to the fees it imposes on regulated parties, after DOE had breached its obligation to pick up and dispose of SNF and HLW under the Standard Contract. In essence, the NRC assesses two types of fees: first, license and inspection fees, issued pursuant to 10 C.F.R. Part 170, which are based on the number of man hours expended by the NRC towards inspection, license amendment, and other similar activities that are unique to a particular plant, and second, annual fees, issued pursuant to 10 C.F.R. Part 171, which are generic fees charged to licensees on an annual basis. *See* DX 469 (Revision of Fee Schedules; 100% Fee Recovery, FY 1999, 64 Fed. Reg. 31448 (June 10, 1999)); 2009 Tr. 182:2-19 (Bethay); 2009 Tr. 1197:17 to 1198:4 (Rabideau). The generic fees imposed via 10 C.F.R. Part 171 include such generic, non-site specific activities as NRC engineering analysis, rule-making, the issuance of regulatory guidance, safety- or security-related research, and resolution of generic technical issues regarding new vendor components. 2009 Tr. 196:16 to 197:7 (Bethay); 2009 Tr. 1198:14-23 (Rabideau). The NRC's imposition of fees on regulated parties has a fairly extensive history.

In 1983, when Boston Edison signed the Standard Contract, the NRC charged its licensees fees for specific services, as authorized under the Independent Offices Appropriations Act of 1952 ("IOAA"), 31 U.S.C. § 9701 (1982). *See Mississippi Power & Light Co. v. United States Nuclear Regulatory Comm'n*, 601 F.2d 223, 225-27 (5th Cir. 1979) (providing history of NRC's 1978 fee schedule); *Florida Power & Light Co. v. United States*, 846 F.2d 765, 767 (D.C. Cir. 1988) (providing history of IOAA). The NRC assessed these fees under 10 C.F.R. Part 170 by assigning hourly charges for the specific work it carried out respecting a particular licensee, including, for example, inspections and license amendments. 10 C.F.R. § 170.1; 2009 Tr. 1197:17 to 1198:13 (Rabideau); *see also* License Fees For Facility Licenses and Materials Licenses, 33 Fed. Reg. 10,923 (Aug. 1, 1968) (explaining creation of fees for specific work in 10 C.F.R. Part 170).

The IOAA did not authorize the NRC to assess fees for its generic activities - activities that applied to the nuclear utility industry as a whole, such as, for example, rulemaking and research activities. *See Mississippi Power & Light*, 601 F.2d at 225-26 (citing *National Cable Television Ass'n, Inc. v. United States*, 415 U.S. 336 (1974); *Federal Power Comm'n v. New England Power Co.*, 415 U.S. 345 (1974)). In 1986, however, through the enactment of the Consolidated Omnibus Budget Reconciliation Act of 1985, Pub. L. 99-272, 100 Stat. 82 (1986), Congress granted the NRC authority to assess annual fees to recover the costs of its generic activities. At that time, Congress mandated that the NRC collect approximately 33 percent of its budget from its licensees through a combination of fees for specific services and fees for generic activities. In response, the NRC established 10 C.F.R. Part 171, which created an annual fee assessed on operating nuclear power reactor licensees for costs associated with the NRC's generic activities. 10 C.F.R. § 171.1; Annual Fee for Power Reactor Operating Licensees and Conforming Amendment, 51 Fed. Reg. 33,224 (Sept. 18, 1986) (creating 10 C.F.R. Part 171 fees).

In 1990, Congress passed the Omnibus Budget Reconciliation Act of 1990 ("OBRA-90") which among other things mandated that the NRC recover approximately 100 percent of its annual budget through fees assessed to its licensees. *See* Pub. L. No. 101-508, § 6101, 104 Stat. 1388-298 to -299 (1990) (codified as amended at 42 U.S.C. § 2214).[23] In response, the NRC

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[23]Section 6101(c) of OBRA-90 provided:

> (c) Annual charges. –
>
> (1) Persons Subject to Charge. – Any licensee of the Commission may be required to pay, in addition to the fees set forth in subsection (b), an annual charge.
>
> (2) Aggregate Amount of Charges. – The aggregate amount of the annual charge collected from all licensees shall equal an amount that approximates 100 percent of the budget authority of the Commission in the fiscal year in which such charge is collected, less any amount appropriated to the Commission from the Nuclear Waste Fund and the amount of fees collected under subsection (b) in such fiscal year.

modified its fee recovery structure for both Part 170 specific-services fees and Part 171 generic fees to enable it to "more completely recover costs incurred by the Commission." Revision of Fee Schedules; 100% Fee Recovery, 56 Fed. Reg. 31,472 (July 10, 1991). One such modification was the creation of a separate Part 171 fee for the NRC's generic activities relating to dry storage, which was assessed only to those licensees with independent spent fuel storage installations ("ISFSIs"). *See* Revision of Fee Schedules; 100% Fee Recovery, 56 Fed. Reg. at 31,480, 31,485. For example, in 1998, all operating nuclear power reactors were required to pay Part 171 annual fees of $2,976,000, but those reactors with an ISFSI were required to pay an additional ISFSI fee of $283,000. Revision of Fee Schedules; 100 Percent Fee Recovery, FY 1998, 63 Fed. Reg. 31,840, 31,843, 31,848 (June 10, 1998); 2009 Tr. 1205:18 to 1206:4 (Rabideau). Additionally, shutdown reactors with dry storage were required to pay the ISFSI fee of $283,000, but shutdown reactors using only wet storage for SNF paid no annual fees. Revision of Fee Schedule; 100 Percent Fee Recovery, FY 1998, 63 Fed. Reg. at 31,848; 2009 Tr. 1206:5-13 (Rabideau).

In 1999, after the breach by DOE of the Standard Contract, the NRC again modified its Part 171 fee structure to eliminate the separate fee imposed only on reactors with an ISFSI and instead create a Spent Fuel Storage/Reactor Decommissioning fee ("SFS/RD fee") that would be imposed on all reactor licensees. *See* DX 469 (Revision of Fee Schedules; 100% Fee Recovery, FY 1999, 64 Fed. Reg. 31,448, 31,462, 31,475-76 (June 10, 1999)). The SFS/RD fee encompasses all of the NRC's costs for three categories of generic activities: (1) wet storage of SNF; (2) dry storage of SNF; and (3) decommissioning. *Id*.[24] As restructured in 1999, the SFS/RD fee became applicable to all nuclear power reactor licensees with SNF on-site (whether operating or shut-down), "regardless of the storage option the licensee elects to use." *Id*. at 31,455. In 1999, the total Part 171 annual fee for all operating reactors was $2,776,000, which included $206,000 for the SFS/RD fee. *Id*. at 31,463. All shut-down reactors with spent fuel storage on-site were assessed the $206,000 SFS/RD fee. *Id*. Entergy does not currently have,

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> (3) Amount Per Licensees. – The Commission shall establish, by rule, a schedule of charges fairly and equitably allocating the aggregate amount of charges described in paragraph (2) among licensees. To the maximum extent practicable, the charges shall have a reasonable relationship to the cost of providing regulatory services and may be based on the allocation of the Commission's resources among licensees or classes of licensees.

104 Stat. at 1388-299.

[24]Prior to 1999, the NRC's costs for generic activities relating to wet storage and decommissioning were imposed on all operating nuclear power reactors as part of the Part 171 annual fee. 2009 Tr. 1205:18 to 1206:4 (Rabideau). Shut-down reactors did not pay any fee for the NRC's generic activities relating to wet storage and decommissioning. 2009 Tr. 1206:5-13 (Rabideau).

nor has it ever had, dry storage capabilities. 2009 Tr. 197:8-13 (Bethay). As a consequence of the 1999 rule changes, Pilgrim was first assessed Part 171 fees covering generic non-site-specific dry-storage activity costs. 2009 Tr. 198:3-14 (Bethay).

Prior to 1999, approximately eleven commercial nuclear sites had dry storage capabilities. NX 1131 at 001110 to 001111 (NRC Information Digest, 2008-2009); 2009 Tr. 223:15-19 (Bethay). After 1999, the number of ISFSIs increased substantially. *See* NX 1131 at 001111 to 001113 (NRC Information Digest, 2008-2009) (showing 37 additional commercial nuclear sites licensed for dry storage after 1999); 2009 Tr. 224:18-22 (Bethay). An increasing number of commercial nuclear plants have been required to build these dry-cask storage facilities because the plants' spent fuel pools were running out of space due to DOE's delay in accepting SNF. 2009 Tr. 227:9-20 (Bethay).

1. *Foreseeability.*

The government asserts that Entergy presented no evidence that the NRC's rule change in 1999 that led to Entergy being imposed fees for generic SNF storage activities, including especially dry storage activities, was foreseeable to DOE at the time of contracting. Def.'s 2010 Post-Trial Br. at 45. The Federal Circuit has instructed that "the law does not require that the specific method of mitigation be foreseeable. Rather, the foreseeability prong applies to the *type of loss*, not the means of mitigation." *Sacramento Mun. Util. Dist. v. United States*, 293 Fed. Appx. 766, 771 (Fed. Cir. 2008) (emphasis added) (citing *Citizens Fed. Bank*, 474 F.3d at 1321 ("If it was foreseeable that the breach would cause the other party to obtain additional capital, there is no requirement that the particular method used to raise that capital or its consequences also be foreseeable.")).

First, it was foreseeable that the commercial nuclear industry, including Entergy, would need to store SNF onsite as a consequence of DOE's breach. Second, it was foreseeable that storage onsite would entail substantial regulatory oversight. *See Wisconsin Electric*, 90 Fed. Cl. at 784 (citing *Commonwealth Edison Co. v. United States*, 271 F.3d 1327, 1348 (Fed. Cir. 2001) (*en banc*)). And, allowance of regulatory damages in SNF cases is hardly unprecedented. This court has awarded damages for costs of analyses required to obtain a license amendment attributable to DOE's breach, *see Dominion Resources*, 84 Fed. Cl. at 274, and legal and communications expenses incurred in connection with NRC regulatory proceedings. *See Carolina Power & Light*, 82 Fed. Cl. at 49. Although the precise regulatory regime of fees that was imposed in 1999 may not have been foreseeable at the time of contracting, the probability of regulatory costs attendant to added on-site SNF storage was foreseeable.

2. *Causation.*

The government contends that Entergy's NRC fee claim must fail because the 1999 rule change was not caused by DOE's failure to accept SNF. Def.'s 2010 Post-Trial Br. at 45. First, the government asserts that NRC's rule change amending its fee structure in 1999 to create the

SFS/RD fee was not caused by DOE's breach, but rather was prompted by concerns of equity and fairness. *Id*. at 46. From that premise, the government reasons that Entergy would have incurred these fees regardless of DOE's non-performance. *See id*. Second, the government argues that there is no proof that the NRC's Part 171 fees respecting generic activities actually increased as a result of the breach. *Id*. at 48. While the government acknowledges that DOE's breach has led to an increase in the number of ISFSIs, which in turn has increased the number of ISFSI license applications, the government posits that the added costs for these licenses would be manifested primarily by greater fees paid under Part 170 for facility-specific regulatory work, *id*. at 48-49, and it maintains that "the record contains no credible evidence that the NRC's costs for its generic spent fuel storage activities increased in any way as a result of DOE's delay." *Id*. at 50.

Contrastingly, Entergy asserts that DOE's failure to accept SNF was a substantial causal factor in the NRC's change in assessing its fees. *See* Entergy's 2009 Post-Trial Br. at 51-52 (citing 2009 Tr. 232:7-16 (Bethay); NX 1131 at 001111 to 001113 (showing an increase in ISFSI licensees after 1998); *Tennessee Valley Auth.*, 69 Fed. Cl. at 515 ("DOE also recognized that utilities might be forced to build additional on-site storage facilities" if DOE did not accept SNF); *Commonwealth Edison Co. v. United States*, 56 Fed. Cl. 652, 667 (2003) ("intent of the NWPA . . . was to avoid the construction by utilities of additional at-reactor storage")). Entergy further contends that the NRC recognized that all reactors would need on-site storage of some type and that this recognition prompted the 1999 rule change, with the result, Entergy avers, that Pilgrim was assessed fees for the NRC's generic dry storage activities that it would not have incurred prior to the rule change because Entergy did not have on-site dry storage. Entergy's 2009 Post-Trial Br. at 52.

At trial, the parties presented substantial evidence on the NRC's rationale for its rule change in 1999 creating the SFS/RD generic fee. In 1998, the NRC Secretary wrote an internal memorandum indicating the Commission's findings that the NRC's current annual fee rules "arbitrarily favor[ed] one method [of SNF storage] over another [and] creat[ed] incentives to choose one approach over another." DX 458 (Memorandum from NRC Secretary John C. Hoyle to the CFO and Executive Director of Operations regarding annual fees for storage of spent fuel (Mar. 9, 1998)). The Commission directed NRC staff to "revise the fee rule (Part 171) in a way that gives equivalent fee treatment to both storage options[, *i.e.*, wet and dry storage]." *Id*. In subsequently proposing the change to a SFS/RD fee, the NRC indicated that the revision was meant to address three concerns: (1) that the prior fee structure created a disincentive for licensees to pursue dry storage; (2) that it was unfair to assess a single licensee multiple annual fees; and (3) inequities arose from allowing shut-down reactors to benefit from the NRC's decommissioning activities without assessing them a proportionate share of the costs of this work. *See* Proposed Revision of Fee Schedules; 100% Fee Recovery, FY 1999, 64 Fed. Reg. 15,876, 15,881-82 (Apr. 1, 1999); 2009 Tr. 1385:11-25 (Rabideau).

Based upon the NRC's stated rationale for the revised fee structure, the government argues that the change was driven by concerns of equity and fairness unrelated to DOE's delay in accepting SNF. Def.'s 2010 Post-Trial Br. at 47. However, in addressing equity and fairness, the

NRC explicitly keyed upon DOE's delay in accepting spent nuclear fuel in its deliberations on the 1999 rule change. "SECY" documentation[25] prepared by the NRC staff for the Commission addressing the proposed 1999 fee rulemaking included a study entitled "Spent Fuel Storage and Decommissioning Fee Study," issued by the NRC Office of the Chief Financial Officer, which stated that:

> Licensees frequently seek dry storage due to the lack of storage capacity remaining in the spent fuel pool. With the continued delay in DOE taking possession of spent fuel, some utilities must then resort to dry storage for more storage capacity.
> . . .
> It is likely that, in the absence of a high-level waste repository, all licensees will need dry storage capacity eventually. It is estimated that as many as 50 reactors will reach storage capacity during the next 10 years.

NX 1153 at 000693, 000700 (Spent Fuel Storage and Decommissioning Fee Study (Oct. 1998)). Further, as part of the final rule amending the fee structure, the NRC, in responding to a commentator's concern regarding the fairness of assessing a fee for generic work on dry storage to licensees without dry storage, stated, "[t]he NRC recognizes that sites will be required to continue to store spent fuel on-site until another solution becomes available. The fact that DOE has not taken possession of the spent fuel does not relieve NRC of the OBRA-90 requirement to recover approximately 100 percent of its budget authority through fees including those associated with generic spent fuel activities." Revision of Fee Schedules; 100% Fee Recovery, FY 1999, 64 Fed. Reg. at 31,455.

Correlatively, the NRC staff encouraged the Commission to seek legislation to expand the use of the Nuclear Waste Fund to recover the NRC's spent fuel storage program costs and to amend the Atomic Energy Act to permit the NRC to assess fees to other federal agencies. NX 1153 at 000709 (Spent Fuel Storage and Decommissioning Study). NRC Commissioner Merrifield, in his comments approving the 1999 NRC fee change, stated that "it is unfortunate that the federal government has not provided for permanent disposal of high-level waste. Because of the delay in the DOE high-level waste repository program, I believe the Commission should seek legislation for [fiscal year] 2000 to amend the Nuclear Waste Policy Act so that generic costs associated with the NRC's spent fuel storage activities can be derived from the Nuclear Waste Fund." NX 1159 at 000735 (Commissioner Merrifield's Comments on SECY-98-260 (FY 1999 Fee Rule) (Dec. 4, 1998)). Commissioner McGaffigan similarly stated, "I also support the Spent Fuel Storage Decommissioning Study Team's recommendation to pursue legislation to amend the Nuclear Waste Policy Act to allow generic costs associated with NRC's spent fuel storage activities from the Nuclear Waste Fund in future fiscal years." NX 1159 at

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[25] "SECY" refers to the Secretary of the NRC. A document's SECY designation identifies the document and is used by the NRC to track correspondence between the Commission and the NRC staff. 2009 Tr. 178:4-13 (Bethay).

000738 (Commissioner McGaffigan's Comments on SECY-98-260 (FY 1999 Fee Rule) (Dec. 14, 1998)). Those comments were consistent with the fact that NRC's obligation under OBRA-90 to recover 100% of its regulatory costs was subject to the caveat that "amount[s] appropriated to the Commission from the Nuclear Waste Fund" were first eliminated, to avoid a duplicate payment by licensees of amounts that had independently been received by the NRC from the Fund. Section 6101(c)(2) of OBRA-90, 104 Stat. at 1388-299, quoted *supra*, at 21-22 n.23.

The government argues that the NRC's stated reason for the 1999 rule change (at least in its proposed form) was to remove the disincentive to pursue dry storage, not to respond to DOE's failure to accept SNF. Yet these two factors are inextricably linked. The NRC's concern with the possible disincentive for dry spent-fuel storage only makes sense in light of DOE's breach. The primary reason that utilities were grappling with the decision between wet and dry spent-fuel storage was because DOE did not begin accepting SNF in 1998. A disincentive to pursue dry storage under the rules only mattered because utilities had a need for SNF storage. In the non-breach world, it is doubtful that the NRC would have been concerned with a disincentive to pursue dry spent-fuel storage, as it was when it considered the 1999 rule change. *See* NX 1153 at 000693, 000700 (Spent Fuel Storage and Decommissioning Fee Study) ("It is likely that, in the absence of a high-level waste repository, all licensees will need dry storage capacity eventually."); Revision of Fee Schedules; 100% Fee Recovery, FY 1999, 64 Fed. Reg. at 31,455 ("The NRC recognizes that sites will be required to continue to store spent fuel on-site until another solution becomes available."). In short, the need for long-term SNF storage, both wet and dry, was the driving consideration for the NRC in restructuring its fee system.

The government's contention that Entergy offered no proof that NRC's costs for generic dry spent-fuel storage activities increased due to the breach also is unavailing. A dramatic increase in the number of ISFSIs would lead to an increase in the NRC's generic dry spent-fuel-storage activity costs. As noted earlier, an internal NRC study preceding the 1999 fee rule encouraged the Commission to recover spent-fuel-storage program costs through appropriations from the Nuclear Waste Fund, *see* NX 1153 at 000709 (Spent Fuel Storage and Decommissioning Fee Study), and two of the NRC Commissioners supported this proposal, tying generic costs directly to DOE's breach. *See* NX 1159 at 000735 (Commissioner Merrifield's Comments on SECY-98-260 (FY 1999 Fee Rule)); *see also* NX 1159 at 000738 (Commissioner McGaffigan's Comments on SECY-98-260 (FY 1999 Fee Rule)). There is therefore a direct causal link between DOE's breach and the NRC's rule change in 1999, which shifted generic dry fuel costs from a few utilities with existing ISFSIs to all utilities, including Entergy, regardless of whether they had such facilities. Entergy has sufficiently established that, but for DOE's breach, the 1999 rule change would not have been implemented.

Another recent SNF case addressed whether damages could be premised on NRC fees assessed under Part 171 against a nuclear utility, albeit on different facts. *See Wisconsin Electric*, 90 Fed. Cl. at 784-86. In that case, Wisconsin Electric sought damages for costs it incurred in building an ISFSI to store SNF that DOE failed to accept under the standard contract. *Id*. at 721. Among the costs it sought were three categories of NRC fees: (1) Part 170 specific fees related to

dry storage; (2) Part 171 generic fees imposed only on dry-storage-facility licensees prior to 1999; and (3) the estimated dry-storage portion of the SFS/RD fee imposed on all licensees commencing in 1999. *Id*. at 782-84. The court granted Wisconsin Electric damages associated with the first two categories of NRC fees, but denied its claim as to the third, explaining as to the third category of fees that "[Wisconsin Electric] did not establish that these fees were incremental - that [Wisconsin Electric] would not have paid required NRC fees in these amounts, during these times, in the non-breach world." *Id*. at 786. Wisconsin Electric had dry storage facilities and would have paid generic fees on that basis under the previously existing fee rule, and the court in *Wisconsin Electric* was concerned with the overall allocation of NRC's generic costs to licensees. The court opined: "In that generic costs for both wet and dry spent fuel storage were spread among all licensees, [Wisconsin Electric] would have paid these fees regardless of whether or not it had dry storage." *Id*. The court credited testimony from Mr. Rabideau that the fee change would have occurred in 1999 even if DOE had begun performance in 1998. *See id*.

The *Wisconsin Electric* case is distinguishable. Unlike Pilgrim, the Wisconsin Electric nuclear power station had a dry storage facility, so Wisconsin Electric would have been assessed generic dry storage fees by the NRC regardless of the 1999 rule change. In contrast, Pilgrim would not have been assessed those generic fees under the fee regime existing prior to 1999. That factual difference is potentially dispositive, but it does not end the analysis. The *Wisconsin Electric* decision additionally seems to rest on a conclusion that the NRC would have implemented its 1999 rule change regardless of whether DOE began accepting SNF in 1998, or at least that Wisconsin Electric failed to prove otherwise. On the record developed in this case, and for the reasons addressed *supra*, this court does not accept that premise. Rather, the NRC's whole approach, from the initial staff papers to the final rule, turned on the fact that each licensee would have to take steps to provide additional onsite storage of some type for SNF because of DOE's breach. That circumstance engendered the NRC's rule change. Entergy therefore has established that, but for DOE's breach, it would not have been assessed NRC generic costs for dry storage activities that it incurred after the 1999 rule change.

3. *Reasonable certainty.*

Different classes of licensees pay different amounts of Part 171 fees. *See* 2009 Tr. 182:20 to 183:6 (Bethay). The NRC's assessment of Part 171 fees varies annually and is determined based upon allocating a share of the NRC's costs to the different classes of licensees based upon the NRC's budgeted requirements. 2009 Tr. 184:7-16 (Bethay). For fiscal year 1999, the NRC's assessment of Part 171 fees was as previously stated, *i.e.*, each operator had to pay $2,776,000 for non-site specific regulatory activities, encompassing the NRC's new line item for SFS/RD which totaled $206,000. DX 469 (Revision of Fee Schedules; 100% Fee Recovery, FY 1999, 64 Fed. Reg. 31,448, 31,463, Tbl. III (June 10, 1999)); 2009 Tr. 186:14-20 (Bethay). In fiscal year 2000, the Part 171 fee assessed to Pilgrim increased to $2,815,000 and the incorporated line item for SFS/RD increased by $3,000 to $209,000. NX 1139 (Revision of Fee Schedules; 100% Fee

Recovery, FY 1999, 64 Fed. Reg. 31,448, 36,953 (June 10, 1999)).[26] For fiscal years 2001 through 2008, the annual fees assessed under Part 171 increased from $2,753,000 to $4,167,000, while the SFS/RD line item fluctuated between a low of $173,000 and a high of $319,000.[27]

Overall, Pilgrim was assessed a total of $2,068,000 in SFS/RD fees from 1999 through 2008. Of this amount, Entergy claims $1,368,787. *See* 2009 Tr. 571:21 to 572:1 (Metcalfe); NX 1138 at 000006 (Metcalfe Summary of Spent Fuel Related Portion of NRC Part 171 Annual Fee 1999 – 2008). Entergy's damages expert, Mr. Metcalfe, calculated the portion of the SFS/RD fee related to spent fuel storage, using the NRC's annual budgets and testimony from Mr. Rabideau, former NRC Deputy Chief Financial Officer. In effect, from these sources, Mr. Metcalfe derived a percentage of each year's SFS/RD fee that could be attributed to spent fuel storage. 2009 Tr. 574:15 to 575:6, 576:19 to 577:1, 588:8-11 (Metcalfe). In testifying about the NRC's annual budgets, for the years from 1999 through 2005, Mr. Rabideau identified those budget items that were, in his opinion, related to spent fuel storage and those that were related to reactor decommissioning. 2009 Tr. 580:5-14, 581:4 to 582:8 (Metcalfe). For the years 2006 to 2008, Mr. Metcalfe applied the identifications that Mr. Rabideau made in the earlier years' budgets to make the same derivations, which was possible because the budgets used the same classifications for costs. 2009 Tr. 582:9-20 (Metcalfe). Using this methodology, Mr. Metcalfe divided NRC's budget costs for each year into spent fuel storage costs, decommissioning costs, and a third category of unidentifiable costs, which he split between the first two. 2009 Tr. 580:5-14 (Metcalfe). Mr. Metcalfe then arrived at a percentage, based on the spent fuel storage costs of the NRC's budget, for each year, and assigned it to the SFS/RD fees that Entergy paid from 1999

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[26]DX 469 and NX 1139 both contain portions of the same final rule issued by the NRC on June 12, 2000.

[27]The Total Part 171 Assessments and the SFS/RD Line Items for the fiscal years 2001 to 2008, respectively, were: 2001 ($2,753,000/$266,000); 2002 ($2,849,000/$239,000); 2003 ($3,251,000/$319,000); 2004 ($3,283,000/$203,000); 2005 ($3,115,000/$159,000); 2006 ($3,704,000/$173,000); 2007 ($4,043,000/$159,000); 2008 ($4,167,000/$135,000). *See* NX 1139 (Revision of Fee Schedules; Fee Recovery for FY 2001, 66 Fed. Reg. 32,452, 32,463, Tbl. III (June 14, 2001)); NX 1139 (Revision of Fee Schedules; Fee Recovery for FY 2002, 67 Fed. Reg. 42,612, 42,623, Tbl. IV (June 24, 2002)); NX 1139 (Revision of Fee Schedules; Fee Recovery for FY 2003, 68 Fed. Reg. 36,714, 36,724, Tbl. IV (June 18, 2003)); NX 1139 (Revision of Fee Schedules; Fee Recovery for FY 2004, 69 Fed. Reg. 22,664, 22,670, Tbl. III (Apr. 26, 2004)); NX 1139 (Revision of Fee Schedules; Fee Recovery for FY 2005, 70 Fed. Reg. 30,526, 30,537, Tbl. III (May 26, 2005)); NX 1139 (Revision of Fee Schedules; Fee Recovery for FY 2006, 71 Fed. Reg. 30,722, 30,735, Tbl. III (May 30, 2006)); NX 1139 (Revision of Fee Schedules; Fee Recovery for FY 2007, 72 Fed. Reg. 31,402, 31,411, Tbl. V (June 6, 2007)); NX 1139 (Revision of Fee Schedules; Fee Recovery for FY 2008, 73 Fed. Reg. 32,386, 32,393, Tbl. V (June 6, 2008)).

to 2008. 2009 Tr. 576:19 to 577:10 (Metcalfe).[28]

The government attacks the reasonable certainty of Mr. Metcalfe's methodology on several grounds. First, the government points out that Entergy's claim includes spent fuel storage costs for both wet storage and dry storage. *See* Def.'s 2010 Post-Trial Br. at 53 (citing 2009 Tr. 757:6-9, 781:24 to 782:11, 776:14-18 (Metcalfe)). The government argues that Entergy is not be entitled to those generic spent fuel storage costs that were specifically related to wet storage, because those costs had been included in the Part 171 annual fee that Entergy had to pay before the 1999 rule change. *Id*. The government made the converse argument in *Wisconsin Electric*.

It is true that prior to the 1999 rule, NRC's generic costs related to wet storage would have been borne in part by Entergy. However, the pertinent questions are whether the pre-1999 costs were of the same nature as those that were incurred after 1999 and whether the NRC's post-1999 generic wet-storage costs can be properly attributed to DOE's breach. Embedded within these questions is the query whether the NRC's generic wet-storage activities changed in any significant way because of DOE's breach. The wet-storage costs encompassed in the SFS/RD surcharge after 1999 included analytical work related to re-racking activities, the effects of installing higher density racks, evaluations of criticality, and assessments of the condition of materials used in pools, given greater radioactive-emitting loads present over an extended period of time. *See* 2009 Tr. 228:12 to 232:17 (Bethay). Had DOE timely accepted SNF, analytical activities of this type related to wet storage would not have been necessary. *See* 2009 Tr. 231:15 to 232:6 (Bethay). Accordingly, because the NRC's activities regarding wet storage changed as result of DOE's breach, just as they did respecting dry storage, the government's argument regarding the wet-storage aspect of the surcharge is unavailing.

The government's second objection to Mr. Metcalfe's methodology concerns those costs that Mr. Rabideau was unable to assign either to spent fuel storage or to reactor decommissioning. Mr. Metcalfe allocated a portion of those unassigned costs to spent fuel storage based upon the percentage of assignable spent-fuel storage costs to assignable total costs. *See* NX 1141 at 000266 (Calculation of Percentage of Total NRC SFS/RD Fee That Is Spent Fuel Storage-Related). The government faults Mr. Metcalfe for failing to perform an independent analysis to determine whether such costs were attributable to DOE's delay. *See* Def.'s 2010 Post-Trial Br. at 53-54; 2009 Tr. 1339:21 to 1341:5 (Peterson). However, Mr. Metcalfe's methodology on this point is a reasonable means of approximating damages, as it generally reflects the NRC's own approach to allocating generic costs and one would expect the percentage of assignable costs attributable to spent fuel storage to approximate the percentage of unassignable costs attributable to spent fuel storage.

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[28]Due to its partial ownership of Pilgrim in 1999, Entergy's claimed damages for that year were reduced to cover only the time it owned and operated the station. *See* 2009 Tr. 575:24-25 (Metcalfe); NX 1138 at 000006 n.(1) (Metcalfe Summary of Spent Fuel Related Portion of NRC Part 171 Annual Fee 1999 – 2008).

The government's third objection concerns an NRC "surcharge," made up of the NRC's costs unrelated to work it does related to licensees. This work consists of international activities, activities with respect to agreement-state oversight, and licensing and inspection activities for other federal agencies. Despite the lack of a direct tie between these activities and licensees, the requirements of OBRA-90 required NRC to recover these costs from licensees. *See* DX 469 (Revision of Fee Schedules; 100% Fee Recovery, FY 1999, 64 Fed. Reg. 31,448, 31,463 (June 10, 1999)). The majority of these surcharge costs were assessed to licensees as part of the Part 171 annual fee, *see id*., 64 Fed. Reg. at 31,475, and a portion of the surcharge costs was assigned to the SFS/RD component fee. *Id*., 64 Fed. Reg. at 31,475-76. In 1999, the SFS/RD component included $26,500 in surcharge costs. *Id*., 64 Fed. Reg. at 31,476.[29]

Entergy's claim includes a percentage of the surcharge. *See* 2009 Tr. 782:12-18 (Metcalfe) ("[The surcharge is] assumed to be under the same basis as the . . . budget items that Mr. Rabideau identified."). However, because this assumption is invalid, given the nature of the surcharge, Entergy's NRC fee claim must be recalculated by first subtracting the surcharge from

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[29]For fiscal year 2000, the surcharge portion of the SFS/RD component was $26,871, calculated by taking the surcharge in the fiscal year 1999 SFS/RD fee and increasing it by 1.4 percent. *See* Revision of Fee Schedules; 100% Fee Recovery, FY 2000, 65 Fed. Reg. 36,946, 36,965 (June 12, 2000) (FY 2000 SFS/RD determined by increasing FY 1999 actual fee by 1.4 percent). From FY 2001 to FY 2008, the surcharge portions of the SFS/RD component were as follows: 2001 ($35,600), Revision of Fee Schedules; Fee Recovery for FY 2001, 66 Fed. Reg. 32,452, 32,474 (June 14, 2001); 2002 ($27,300), Revision of Fee Schedules; Fee Recovery for FY 2002, 67 Fed. Reg. 42,612, 42,635 (June 24, 2002); 2003 ($14,900), Revision of Fee Schedules; Fee Recovery for FY 2003, 68 Fed. Reg. 36,714, 36,734 (June 18, 2003); 2004 ($7,800), Revision of Fee Schedules; Fee Recovery for FY 2004, 69 Fed. Reg. 22,664, 22,681 (Apr. 26, 2004); 2005 ($880), Revision of Fee Schedules; Fee Recovery for FY 2005, 70 Fed. Reg. 30,526, 30,549 (May 26, 2005); 2006 ($1,200), Revision of Fee Schedules; Fee Recovery for FY 2006, 71 Fed. Reg. 30,722, 30,752 (May 30, 2006); 2007 (-$2,800), Revision of Fee Schedules; Fee Recovery for FY 2007, 72 Fed. Reg. 31,402, 31,427 (June 6, 2007); 2008 (-$2,097), Revision of Fee Schedules; Fee Recovery for FY 2008, 73 Fed. Reg. 32,386, 32,408 (June 6, 2008).

Beginning in fiscal year 2001, as a result of amendments to OBRA-90 adopted by way of the 2001 Energy and Water Development Appropriations Act, Pub. L. No. 106-377, § 1(a)(2), 114 Stat. 1441, 1141A-86 (Oct. 27, 2000), the NRC's required percentage was reduced from 100 percent by two percent per year beginning in fiscal year 2001 until the fee-recovery requirement reached 90 percent in fiscal year 2005. To the extent this fee relief was insufficient to cover all surcharge costs, those remaining surcharge costs were spread to all licensees based on their percentage of the budget. *See* Revision of Fee Schedules; Fee Recovery for FY 2005, 70 Fed. Reg. 30,526, 30,529 (May 26, 2005). In 2007 and 2008, the fee relief exceeded the total surcharge costs, but was assessed in the same manner as the existing fee methodology, resulting in licensees' SFS/RD fees actually being reduced by the surcharge. *See* Revision of Fee Schedules; Fee Recovery for FY 2007, 72 Fed. Reg. 31,402, 31,409 (June 6, 2007).

the SFS/RD fee for each fiscal year, and then applying the estimated spent-fuel storage related percentage calculated by Mr. Metcalfe. *See* NX 1138 at 000006 (Summary of Spent Fuel Related Portion of NRC Part 171 Annual Fee 1999 – 2008). This adjustment and recalculation results in NRC fee damages of $1,292,696.[30]

The government's final objection is that Entergy failed to show that it has paid more in NRC fees in the actual world than it would have paid had the NRC not restructured its Part 171 fees and created the SFS/RD component. *See* Def.'s 2010 Post-Trial Br. at 54. The government endeavors to correlate a modest decrease in Pilgrim's Part 171 annual fee from 1998 to 1999 with the creation of the SFS/RD fee, "which increased the fee base for the NRC's generic decommissioning and wet storage activities to both operating and shutdown reactors, whereas these costs had previously been borne only by operating reactors." *Id*. (citing 2009 Tr. 1403:14 to 1404:2 (Rabideau)). However, the government's proffered correlation is too attenuated. One of the reasons shutdown reactors were included in the SFS/RD fee is that they had to store SNF because of DOE's breach. While the pool of licensees to support spent fuel storage costs may have increased as a result of the rule change, those licensees brought with them added costs to the NRC, costs attributable to DOE's breach. Entergy need not "quantify the fees it would have been assessed had the NRC not increased the pool of licensees responsible for its generic decommissioning and wet storage activities." *Id*. Moreover, amendments adopted in 2001 to the requirements of OBRA-90 gradually reduced the surcharge payable by licensees for the NRC's non-licensee activities. *See supra*, at 30 n.29. Accordingly, Mr. Metcalfe's methodology provides a reasonable approximation of added NRC fee costs assessed to Entergy that resulted from DOE's breach.

Entergy, having shown foreseeability, causation, and reasonable certainty, is entitled to $1,292,696 in damages for NRC fees attributable to DOE's breach.

C. Cost of Capital

Entergy seeks "cost of capital" damages in the amount of $1,396,000. Entergy's 2009 Post-Trial Br. at 24-26. Entergy describes its cost of capital claim as "the cost of securing the additional money that [Entergy] [was] forced to expend" to mitigate DOE's breach. *Id*. at 25. Whether Entergy may recover its claim for cost-of-capital damages turns on the application of the no-interest rule, which states that "[i]nterest on a claim against the United States shall be

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[30]As an example, for fiscal year 2001, the SFS/RD fee of $266,000 is reduced by $35,600, the SFS/RD surcharge. The resulting $230,400 is then multiplied by 54.74 percent, resulting in damages of $133,033 for fiscal year 2001. Damages for fiscal year 1999 account for the fact that Entergy only owned Pilgrim for the last quarter of that fiscal year. Hence, only one-fourth of the surcharge for that year, or $6,625, is used in the calculation. *See* NX 1138 at 000006 n.(1) (Metcalfe Summary of Spent Fuel Related Annual Fee 1999 – 2008). For fiscal years 2007 and 2008, the fee relief exceeded the surcharge, so no change in calculation is necessary for those years. *See supra*, at 30 n.29.

allowed in a judgment of the United States Court of Federal Claims only under a contract or Act of Congress expressly providing for payment thereof." 28 U.S.C. § 2516(a). The "no-interest rule is an aspect of the basic rule of sovereign immunity," *England v. Contel Advanced Sys., Inc.*, 384 F.3d 1372, 1379 (Fed. Cir. 2004), and requires that interest on a claim "is not recoverable in a suit against the government unless it has expressly provided for its recovery." *Jetco, Inc. v. United States*, 11 Cl. Ct. 837, 850 (1987); *see also Sandstrom v. Principi*, 358 F.3d 1376, 1377 (Fed. Cir. 2004) ("[I]n the absence of a clear, explicit waiver of sovereign immunity from liability for interest, the United States government . . . pays all judgments and amounts due in what economists call 'nominal dollars' rather than in economic 'real dollars.'").

In addressing Entergy's claimed financing costs, the court must determine the character of those costs to determine whether they are non-compensable "interest" under the statute. "[T]he character or nature of 'interest' cannot be changed by calling it 'damages,' 'loss,' 'earned increment,' 'just compensation,' 'discount,' 'offset,' or 'penalty,' or any other term, because it is still interest and the no-interest rule applies to it." *Library of Congress v. Shaw*, 478 U.S. 310, 321 (1986) (internal quotation omitted) (citation omitted). Neither the Nuclear Waste Policy Act, 42 U.S.C. §§ 10101-10270, nor any other Act of Congress has mandated that the United States pay interest on damages awarded for breaches of contracts related to the NWPA. Nor does any provision of the Standard Contract provide for the payment of interest on damages claims in this case.

Mr. Metcalfe calculated Entergy's cost of capital damages by taking the weighted average cost of Entergy's debt and multiplying it by the mitigation costs incurred during the applicable time period plus the claimed NRC fees. *See* NDX 127 at 51; 2009 Tr. 697:15 to 698:3, 708:15 to 709:8 (Metcalfe). The average weighted cost of debt figures were derived by analyzing a two-year average for each of the relevant years of the combination of Entergy's long-term debt notes payable, the currently maturing portion of Entergy's long-term debt amounts from the balance sheet. 2009 Tr. 710:1 to 711:6 (Metcalfe); NX 1002 at 004434 (Calculated Weighted Average Cost of Long Term Debt 1998-2008).

The government argues that Entergy's claim is a demand for prejudgment interest that is not recoverable against the government under 28 U.S.C. § 2516(a). Entergy argues that, although interest *on* a claim is not recoverable under 28 U.S.C. § 2516(a), interest *as* a claim is recoverable. Entergy's 2010 Post-Trial Reply Br. at 22 (citing *Centex Corp. v. United States*, 55 Fed. Cl. 381, 390 (2003) ("Courts frequently distinguish . . . between 'interest *on* a claim,' generally precluded by the statute, and 'interest *as* a claim' which courts may treat as an element of compensation. For that reason, it has been held that foreseeable financing costs can be an element of expectancy damages."), *aff'd*, 395 F.3d 1283 (Fed. Cir. 2005)).

The no-interest rule prohibits a claimant from recovering the time value of money on which the government has delayed payment. "The no-interest rule has been applied to prevent parties from holding the United States liable on claims grounded on the belated receipt of funds, even when characterized as compensation for delay." *Shaw*, 478 U.S. at 322. However, in

certain circumstances, the Federal Circuit has endorsed recovery of increased "financing costs" caused by the government's breach of contract. *See Bluebonnet Sav. Bank, FSB v. United States*, 266 F.3d 1348, 1355-57 (Fed. Cir. 2001) (requiring plaintiff to prove foreseeability, causation, and reasonable certainty as to the increase in financing costs attributable to the government's breach); *see also Wells Fargo Bank*, 88 F.3d at 1021 (claim derived from additional commitment on governmental loan guarantee). The Federal Circuit has recognized the recovery of financing-related costs "as part of an equitable adjustment under a fixed-price contract if the contractor has actually paid interest because of the government's delay in payment," although "interest on equity capital is not recoverable." *Wickham Contracting Co. v. Fischer*, 12 F.3d 1574, 1582-83 (Fed. Cir. 1994) (denying recovery "because [the claim] showed neither that borrowed funds were used in connection with the [contracted] project, nor that the borrowing resulted from the [government's] delay") (internal quotation omitted) (citations omitted). More recently, however, the Federal Circuit has stated that the no-interest rule bars "interest costs incurred on money borrowed as a result of the government's breach or delay in payments." *England*, 384 F.3d at 1379.

The *England* decision appears to contradict the earlier *Wickham* decision, which would permit interest costs on money borrowed as a result of the government's breach if the plaintiff could show that the borrowed funds were used in connection with the mitigation project and resulted from the government's delay. The *England* decision indicates that even a direct connection between the borrowed funds and mitigation project would not be sufficient. In *England*, the Federal Circuit drew upon pre-*Wickham* precedents to opine that "'[i]nterest paid on bank loans made because of financial stringency resulting from a breach by the Government of a contract between it and the borrower is not recoverable.' . . . [Even] had the plaintiff 'used his own money and so lost the interest which it might have earned for him, the claim . . . would not have differed in principle.'" 384 F.3d at 1379 (quoting *J.D. Hedin Constr. Co. v. United States*, 456 F.2d 1315, 1330 (Ct. Cl. 1972) (which had quoted *Myerle v. United States*, 33 Ct. Cl. 1, 25 (1897))) (internal citations omitted). The Federal Circuit thus rejected a distinction between financing costs arising from direct debt financing of a capital mitigation project and equity financing from a plaintiff's own financial reserves unrelated to a mitigation project. Instead, *England* seemingly holds that the no-interest rule bars any recovery of interest costs incurred on money borrowed as a result of the government's breach.

In recent SNF cases, this court has addressed financing-cost claims similar to that brought by Entergy, and in almost every instance has denied those claims. For example, in *System Fuels, Inc. v. United States*, __ Fed. Cl. __, __, 2010 WL 1005914 at *9-13 (2010), a plaintiff was denied damages for the cost of funds borrowed to mitigate damages from DOE's breach. The court relied on the Federal Circuit's holding in *England* barring "'interest costs incurred on money borrowed as a result of the government's breach,'" although the court indicated disagreement with that holding. *Id*. at *11, 13 (quoting *England*, 384 F.3d at 1379).[31]

[31]The court reasoned that the Federal Circuit in *England* failed to recognize "that the word 'interest' was specifically modified and limited in 28 U.S.C. § 2516(a) only to interest 'on a

Earlier SNF decisions rested on the standard articulated in *Wickham*. In *Wisconsin Electric*, the court denied the plaintiff its claim for the "costs of funding its dry storage project through financing mechanisms" because "[Wisconsin Electric] did not identify any segregated funding source for its mitigation expenses. Absent any specific borrowing or a showing of increased borrowing, to meet its mitigation needs the constraints of the statutory bar of 28 U.S.C. § 2516 . . . apply." 90 Fed. Cl. at 794, 798. In *Consumers Energy Co. v. United States*, 84 Fed. Cl. at 670, 674-75 (2008), the court denied a claim for "time price differential dollars" which the plaintiff had defined as "interest incurred through borrowing used specifically to mitigate the Government's breach." The court ruled that the utility failed to establish a sufficient correlation between the utility's borrowing and its mitigation activities:

> [Consumers Energy failed] to break down the cost of financing and then relate that financing to ISFSI construction or dry cask loading campaigns. Consumers Energy's claim for time price differential dollars lacks any evidence of a correspondence between its general borrowing and its mitigation efforts. Additionally, there has been no showing of a necessity for increased borrowing as a result of DOE's partial breach. Consumers Energy has merely taken its as-spent damages and then made an upward adjustment for inflation using the GDP implicit price deflator. In short, there is absolutely no correlation between Consumers Energy's capital financing and its claim for damages.

Consumers Energy, 84 Fed. Cl. at 675. Similarly, in *Dominion Resources*, the court denied recovery of an allowance for funds used during construction where plaintiff failed to demonstrate "a causal link between [its] borrowed funds and capital construction costs incurred as a result of defendant's breach." 84 Fed. Cl. at 285. *See also Carolina Power & Light*, 82 Fed. Cl. at 54 (finding it unnecessary to determine if *Wickham* applies because plaintiff failed to provide any evidence tying borrowed funds to any specific mitigation project); *System Fuels*, 79 Fed. Cl. at 70 (finding that System Fuels failed to establish that its claimed financing costs were directly related to required borrowing through specific debt instruments); *Northern States Power*, 78 Fed. Cl. at 471 (holding that plaintiff failed to demonstrate that debt augmenting its capital structure was used to mitigate DOE's partial breach). A divergent decision, *Energy Northwest*, 91 Fed. Cl. at 558-60, held that borrowings traceable to actions to mitigate the government's breach were outside the ambit of, and thus not barred by, the no-interest rule.

Entergy argues that it is entitled to damages on its cost-of-capital claim because "its cost of capital damages represent real economic costs incurred by [Entergy] as a result of having to subsidize DOE's breach by expending capital to store and manage SNF for the indeterminate future." Entergy's 2010 Post-Trial Reply Br. at 22; *see also* 2009 Tr. 1520:22 to 1521:5 (Peterson) (acknowledging that financing costs are real costs that entities incur). However, these

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claim. . . .' As a result, the different economic effect between the cost of borrowed funds, which represents an economic loss, and interest on a claim, which represents an economic gain, was obscured." *Id*. at *13.

proofs are not sufficient to take these damages out of the no-interest prohibition as currently interpreted by the Federal Circuit. Entergy's cost-of-capital claim is nothing more than a claim for interest "incurred on money borrowed as a result of the government's breach." *England*, 384 F.3d at 1379. Even if the more permissive *Wickham* standard were applied, Entergy has presented no evidence of segregated funding, specific borrowing, or increased borrowing to meet its mitigation needs. *See Wisconsin Electric*, 90 Fed. Cl. at 798. Entergy has failed to establish that its claimed financing costs were directly related to required borrowing through specific debt instruments. *See, e.g.*, *System Fuels*, 79 Fed. Cl. at 70. Therefore, Entergy cannot recover costs of capital.

II. THE GOVERNMENT'S CLAIMS

The government makes two claims that, if accepted, would offset Entergy's damages. These claims seek: (1) costs Entergy would have incurred loadings casks to DOE had DOE timely accepted SNF, and (2) a recoupment for the diminution-in-value damages awarded to Boston Edison.

A. Offset for Cask Loading to DOE

The government argues that Entergy's damages should be offset by the expense of loading DOE transportation casks that Entergy would have borne in the "but for" world that would have arisen if DOE had brought casks to Pilgrim for collection of SNF. Def.'s 2010 Br. at 35-37. The government contends that, had DOE performed, Entergy would have borne the cost of loading SNF into DOE transportation casks when DOE came to accept the fuel. *Id*. at 35. The government estimates these costs to be $2,476,800, a figure which it considers conservative, and requests that Entergy's claim be offset accordingly. *See* DX 514 at 15 (Report of Warren K. Brewer, an expert who testified on the government's behalf (Aug. 26, 2009) ("Brewer Report")).[32]

Entergy opposes the government's proposed offset on two grounds. First, Entergy asserts that cask loading costs have not been avoided because they will be incurred if, and when, DOE

[32]The parties disagree as to who bears the burden of proof on these cask loading costs. The government argues that, under *Yankee Atomic*, Entergy bears the burden of proving the cask loading costs it avoided as a result of DOE's breach. Def.'s 2010 Post-Trial Br. at 35. The Federal Circuit in *Yankee Atomic* held that the plaintiff in that SNF case had the burden of establishing a SNF acceptance rate, without which the court "could not perform the necessary comparison between the breach and non-breach worlds." 536 F.3d at 1273. However, once the plaintiff has presented sufficient evidence to establish a plausible non-breach world, the government bears the burden of proving its claimed offsets to a reasonable certainty. *See Carolina Power & Light*, 82 Fed. Cl. at 52 ("Defendant has failed to present any evidence showing with reasonable certainty what [p]laintiffs' loading costs would have been had DOE performed.").

actually arrives to accept Pilgrim's spent fuel. Therefore, such costs have been postponed but not obviated. Entergy's 2009 Post-Trial Br. at 66; *see also, e.g.*, *Carolina Power & Light*, 573 F.3d at 1277 ("Plaintiffs have not avoided the costs of loading. Rather they have merely deferred these costs."). Second, Entergy asks this court to reject the government's claim as too speculative and uncertain. Entergy's 2009 Post-Trial Br. at 67.

In response, the government asserts that Entergy's loading costs in the breach and non-breach worlds are not equal because, in the non-breach world, Entergy would have loaded its spent fuel to DOE from its spent fuel pool, *see* 2009 Tr. 929:24 to 930:1; 939:11-14 (Brewer), whereas in the actual world, when Entergy transfers its spent fuel to DOE in the future, at least some, and possibly all, of the spent fuel delivered to DOE will be transferred from dry storage, and not from the spent fuel pool. 2009 Tr. 929:12-23, 939:15-22 (Brewer). Therefore, the government argues that Entergy's avoided costs from the non-breach world should offset its damages claim now, and later, when Entergy actually incurs loading costs, it can seek damages for those actual costs. *See* Def.'s 2010 Post-Trial Br. at 36; DX 514 at 8 (Brewer Report). As the government would have it, any other outcome would allow Entergy to recover more in damages than it ultimately should receive.

While the government is almost certainly correct that the cost of transferring SNF from the spent fuel pool to a DOE transportation cask is different from the cost of transferring SNF from an ISFSI, that circumstance does not resolve the more basic criticism of its offset claim - the uncertainty and speculative nature of any inquiry into loading costs. Prior decisions have concluded that "[a]s matters now stand, any benefit inhering in [the utility] because of delayed loading costs would be entirely speculative. It is not possible to ascertain the method DOE will ultimately use for SNF acceptance." *Tennessee Valley Auth.*, 69 Fed. Cl. at 542; *see also System Fuels*, 79 Fed. Cl. at 71; *Northern States*, 78 Fed. Cl. at 468-69; *Southern Nuclear*, 77 Fed. Cl. at 450-51; *Pacific Gas & Elec. Co. v. United States*, 73 Fed. Cl. 333, 416 (2006) ("Plaintiff's loading costs have been deferred rather than avoided, and the court declines to engage in a guessing game as to whether such deferred costs will have increased or decreased by the time (if ever) defendant performs."), *aff'd in part, rev'd in part, and remanded*, 536 F.3d 1282; *Yankee Atomic Elec. Co. v. United States*, 73 Fed. Cl. 249, 286 (2006), *aff'd in part, rev'd in part, and remanded*, 536 F.3d 1268; *Sacramento Mun. Util. Dist. v. United States*, 70 Fed. Cl. 332, 372 (2006), *aff'd in part, rev'd in part, and remanded*, 293 Fed. Appx. 766.

The government argues that its claim is not too speculative, but is a reasonable estimate, because it is based on estimates Entergy itself made to the NRC in a required filing. Def.'s 2010 Post-Trial Br. at 37 (citing DX 497 (Entergy Program for Maintenance of Irradiated Fuel (June 7, 2007))).[33] However, Entergy's filing specifically stated that "[a]t this time, DOE has not

[33]In a sense, Entergy provided a rough estimate of the costs that might be incurred in these scenarios. In 2007, as required by 10 C.F.R. § 50.54(bb), Entergy submitted a letter to the NRC providing information regarding spent fuel storage and disposal costs in the event its license was not renewed past 2012. In this letter, Entergy estimated the cost to load an assembly of spent fuel

identified any transport casks or requirements. Therefore, there is considerable uncertainty as to the actual costs that may have to be incurred." DX 497 at 2. That uncertainty remains. *See* 2009 Tr. 956:12-18 (Brewer) ("The fuel that would be in dry storage at [the time of performance] would, depending on how DOE goes about taking that fuel, could be much cheaper to transfer to DOE. It could be much more expensive to transfer to DOE."); 2009 Tr. 148:13 to 150:13, 151:1 to 152:1 (Minott) (testifying that DOE has not specified details of a transport-cask system, including material, weight, dimensions, capacity, its vertical or horizontal orientation, method for securing the lid, radiation shielding, or cask drop requirements, without which knowledge the cost to load the cask cannot be estimated).[34] The court accordingly denies the government's requested setoff.

B. Recoupment for Boston Edison's Diminution-In-Value Damages

The government seeks recoupment of the $40.03 million benefit Entergy gained in its purchase of Pilgrim from Boston Edison in the form of an increased amount placed in the Pilgrim decommissioning trust fund as a result of DOE's breach. *See* Def.'s 2010 Post-Trial Br. at 15.[35] This recoupment claim arises from the 2007 trial held in this court on Boston Edison's damages claim. The court ruled that Boston Edison was entitled to recover diminution-in-value damages based on the diminution in the market price of Pilgrim caused by DOE's breach. *Boston Edison III*, 80 Fed. Cl. at 483. As part of the sale of Pilgrim, Boston Edison transferred to Entergy a net amount of $427,879,201.50 in a decommissioning trust fund. This court held that this fund included not only the regulatory minimum amount for decommissioning but also an amount for

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from the pool to an ISFSI at $274,500, the cost to transfer spent fuel into a dry storage canister at $153,600, and the cost of transferring spent fuel from the ISFSI into a DOE transport cask at $76,800. DX 497 at 3 (Entergy Program for Maintenance of Irradiated Fuel). The government extrapolates from these estimates that loading from a spent fuel pool would cost between $153,600 and $274,500, while loading from dry storage would cost $78,600 per cask. Def.'s 2010 Post-Trial Br. at 36; 2009 Tr. 940:6 to 941:7, 964:10-14 (Brewer).

[34]The government seeks to overcome the uncertainty in its calculation by "resolv[ing] all ambiguity regarding costs in [Entergy's] favor," resulting in a calculation of "the *absolute minimum amount* that [Entergy] would have incurred to load casks in the non-breach world - regardless of the type and size of cask utilized." Def.'s 2010 Post-Trial Br. at 40; *see also* 2009 Tr. 973:4-13 (Brewer); DX 514 at 11 (Brewer Report). However, "any 'benefits' the government seeks to offset must be shown to a reasonable certainty, or they must be denied as too speculative to meet the standards set forth by the Federal Circuit in *Indiana Michigan*." *System Fuels*, 79 Fed. Cl. at 71.

[35]Although the parties have at times referred to the government's claim as an "offset" or "credit," the court will use the term "recoupment" because the claim arises out of the same transaction that engenders Entergy's claim. *See System Fuels, Inc. v. United States*, 73 Fed. Cl. 206, 216 n.8 (2006) (citing *In re Gober*, 100 F.3d 1195, 1207 (5th Cir.1996)).

SNF storage costs made necessary by DOE's breach, which the evidence established was $40.03 million. *Id*. at 478, 490. The court also found that costs of measures to store spent fuel during operation of Pilgrim played no role in the amount placed in the decommissioning trust fund and did not affect the price Entergy paid for the plant. *Id*. at 493.

It is well established that "the non-breaching party is not entitled, through the award of damages, to achieve a position superior to the one it would reasonably have occupied had the breach not occurred." *LaSalle Talman Bank, F.S.B. v. United States*, 317 F.3d 1363, 1371 (Fed. Cir. 2003). Specifically, "[w]here the defendant's wrong or breach of contract has not only caused damage, but has also conferred a benefit upon plaintiff . . . which he would not otherwise have reaped, the value of this benefit must be credited to defendant in assessing the damages." *Id*. (quoting Charles T. McCormick, *Handbook on The Law of Damages* 146 (1935)). The government asserts that this damages principle applies to this case: that Entergy, upon purchasing Pilgrim, received a $40.03 million benefit in a decommissioning trust fund for SNF storage that it would not have received absent the breach. Def.'s 2010 Post-Trial Br. at 15-16. This court previously found that Boston Edison increased the decommissioning fund by $40.03 million as a "direct consequence of DOE's breach." *Boston Edison III*, 80 Fed. Cl. at 496. Therefore, the $40.03 million increase in the decommissioning trust fund was a benefit to Entergy that, absent DOE's delay, it "would not . . . have reaped." *LaSalle*, 317 F.3d at 1372. The government argues that Entergy's damages should be accordingly reduced to avoid a double recovery.

Entergy disputes the government's recoupment claim on two different yet interrelated grounds. First, Entergy asserts that the government's claim must fail because the alleged benefit to Entergy of additional decommissioning funds was intended for post-shut-down storage and management of SNF, and hence cannot properly be applied to offset Entergy's damages claim in this case for mitigation costs associated with SNF storage prior to shut-down. *See* Entergy's 2009 Post-Trial Br. at 59-60 (citing *Zivitz v. Greenberg*, 279 F.3d 536, 540 (7th Cir. 2002) ("[C]ourts should not impose a setoff against a recovery from injuries separate and distinct from those for which the plaintiff was already compensated.") (internal citations omitted); *Turner v. Municipality of Anchorage*, 171 P.3d 180, 190 (Alaska 2007) ("The purpose of offset . . . is avoiding double recovery; therefore, if the prior payment was for a different injury than the one compensated at trial, no issue of double recovery arises.")).

The government counters that Entergy's current damages claim and the $40.03 million payment do not arise from distinct injuries because both arise from DOE's delay in accepting SNF. This court previously found that the $40.03 million benefit from Boston Edison was specifically intended for post-shut-down storage and management of SNF. *See Boston Edison III*, 80 Fed. Cl. at 476-77. Further, Entergy received no benefit in relation to projected costs of storing spent fuel during operations, through, *e.g.*, use of higher density racks in the pool. *Id*. at 493. Although post-shut-down SNF storage and management and pre-shut-down wet storage expansion measures both are attributable to DOE's breach, they are distinct injuries.

Entergy's second, related, response to the government's recoupment claim is that the $40.03 million portion of the decommissioning fund was set aside for post-shut-down SNF storage and management costs and is unavailable to Entergy for use to cover pre-shut-down SNF storage and management costs. Entergy's 2009 Post-Trial Br. at 60-61. Presumably, the government would be entitled to a recoupment for that amount against a future Entergy claim after Entergy was able to draw on those funds. The government responds that while the $40.03 million in the decommissioning fund may be presently inaccessible to Entergy, that is because of Entergy's own choices.

NRC regulations mandate that a licensee establish a trust fund sufficient to cover decommissioning activities, which activities must be specified in the trust. *See Boston Edision III*, 80 Fed. Cl. at 478 (citing 10 C.F.R. § 50.75(c)). By regulation, decommissioning funds may not be used for non-decommissioning related expenses, such as SNF storage. *See* 10 C.F.R. § 50.82(a)(8)(i); *see also* 2009 Tr. 1133:17-24 (Test. of Thomas Fredrichs, Senior Licensee Financial Policy Advisor, NRC) (testifying that neither pre- nor post-shut-down spent fuel storage activities were considered as radiological decommissioning under the NRC's regulations). The NRC has specifically held that "allowing decommissioning trust fund withdrawals for disposals by nuclear power plants that continue to operate is not warranted. These activities are more appropriately considered operating activities and should be financed in that way." DX 518 (Decommissioning of Nuclear Power Reactors, 61 Fed. Reg. 39,278, 39,293 (July 29, 1996)).[36]

Boston Edison transferred the decommissioning trust funds to Entergy at the closing of the sale in return for Entergy's acceptance of full responsibility for decommissioning the plant and caring for the SNF that had been generated at Pilgrim before the sale. *Boston Edison III*, 80 Fed. Cl. at 482. After the closing, Entergy filed annual reports with the NRC regarding the status of the decommissioning trust fund, and initially reported only a portion of the total fund available to it. *Id*. (citing BX 367 (1999 Decommissioning Funding Assurance Report) ("The NRC formulas and the calculated fund amounts herein exclude the cost of dismantling or demolishing non-radiological systems and structures as well as costs to manage and store spent fuel until transfer to DOE.")). Beginning in 2003, however, Entergy began reporting the entirety of the decommissioning trust fund as applicable to decommissioning. *Id*.

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[36]The NRC retains authority to grant exemptions from the requirements of any of its regulations. *See* 10 C.F.R. § 50.12(a). However, to be granted, an exemption requires a showing that the exemption sought is "[a]uthorized by law, will not present an undue risk to the public health and safety, and [is] consistent with the common defense and security." *Id*. A grant of an exemption also requires a showing that "special circumstances are present." *Id*. There is no evidence that a licensee has ever successfully secured an exemption allowing an operating nuclear plant to use decommissioning funds for spent fuel storage costs. 2009 Tr. 1153:11-14 (Fredrichs).

The government argues that Entergy could have maintained the $40.03 million amount separate from the decommissioning funds by creating a sub-account for that purpose. Def.'s 2010 Post-Trial Br. at 22. The NRC regulations provide for the possibility of such sub-accounts, in which licensees could use a single decommissioning trust fund for both money collected for radiological decommissioning and funds collected for other purposes, such as SNF storage and greenfielding. *See* DX 519 (Decommissioning Trust Provisions, 67 Fed. Reg. 78,332, 78,340 (Dec. 24, 2002)). In a rulemaking completed in 2002, the NRC advised licensees that

> The NRC does not object to licensees mingling funds for decommissioning activities as defined by the NRC and for other activities outside the NRC's definition. However, if funds are mingled in this way, licensees need to ensure that separate sub-accounts are established so funds for each type of activity are appropriately identified.
>
> As to the statement made by commenters that restrictions should not apply to funds held in trust for purposes other than radiological decommissioning, the Commission's position is that withdrawals for non-radioactive decommissioning expenses that do not affect the amount of funds remaining for radiation decommissioning costs are not covered by this rule.

Id.; *see also* 2009 Tr. 1063:23 to 1064:9 (Fredrichs).

Contemporaneously, in 2002-2003, Mr. Minott, then a Senior Project Manager at Pilgrim, proposed that Entergy create a sub-account within the trust to allow for more flexibility regarding use of trust funds for post-shut-down spent fuel storage. 2009 Tr. 129:4-22 (Minott). However, no action was ever taken on this proposal. 2009 Tr. 130:24-25 (Minott). The government argues that, had Entergy created a sub-account for SNF management funds, it could have used those funds, without restriction from the NRC, for not only post-shut-down spent fuel storage, but pre-shut-down as well. *See* Def.'s 2010 Post-Trial Br. at 23; 2009 Tr. 1075:18 to 1076:3 (Fredrichs). According to the government, it was Entergy's decision in 2003 to report the entire amount of its decommissioning trust fund to the NRC that made the $40.03 million inaccessible for SNF storage costs, and therefore Entergy should not be able to defer application of a recoupment of those funds.

The possibility that a sub-account might be carved out of the decommissioning trust fund for Pilgrim, and that Entergy could draw upon the subaccount for re-racking costs, is too speculative. While it is true that Mr. Minott proposed creating a sub-account, he did so considering that Entergy might use trust funds for *post*-shut-down spent fuel storage. *See* 2009 Tr. 129:4-22 (Minott). Again, the decommissioning trust fund included an infusion of "extra" funds by Boston Edison only for post-shut-down storage expenses. Further, Mr. Minott's proposal was based upon the incorrect assumption that Entergy had segregated the funds in the decommissioning trust fund between those that were pledged for 10 C.F.R. § 50.75 decommissioning purposes and those that were designated for post-shut-down SNF storage

activities. *See* 2009 Tr. 168:6-15 (Minott). Instead, the Master Trust Agreement stated that the "exclusive purpose" of the trust was "to accumulate and hold funds for the contemplated Decommissioning of the Unit(s) and to expend funds for that purpose." NX 1174 at 7 (§ 2.01, Master Trust Agreement).[37] The Master Trust Agreement defines "decommissioning" as "the removal of the Unit from service and disposal of its components in accordance with Applicable Law." *Id*. at 4 (1.01(10) Definitions-"Decommissioning"). In short, spent fuel storage is not contemplated as a decommissioning expense for which the trust may provide. That Entergy might have sought approval from the NRC to place a portion of the decommissioning trust fund into a sub-account accessible for pre-shut-down spent fuel storage, given the manner in which the trust fund was established, its purpose, and the actual trust agreement, is highly speculative. The NRC does not appear to have granted any such requests, *see* 2009 Tr. 1153:11-14 (Fredrichs), nor is there any evidence that a licensee has ever made a request of this type. Entergy was certainly under no obligation to take steps to make the "extra" funds in the trust accessible for costs that it was not meant to cover. Once the funds were committed to 10 C.F.R. § 50.75 decommissioning activities, they could only be withdrawn into a sub-account for non-decommissioning related activities with NRC approval. *See* 2009 Tr. 1183:9 to 1185:7 (Fredrichs). Such approval would require that the licensee prove that special circumstances exist. *See* 2009 Tr. 1152:24 to 1153:3 (Fredrichs); 10 C.F.R. § 50.12(a)(2).

The government relies on a decision rendered by the Fourth Circuit to bolster its claim that it now can recoup from Entergy the $40.03 million benefit it received via an addition to the decommissioning trust fund. In *Canady v. Crestar Mortgage Corp.*, 109 F.3d 969, 972-73 (4th Cir. 1997), the court reversed a damage award based upon the defendant's breach of a contract to convey to the plaintiff a first-priority mortgage on foreclosed property where, as a direct result of the defendant's breach, the plaintiff was able to collect a judgment pursuant to a third-priority mortgage that, but for the defendant's breach, would not have yielded any proceeds upon foreclosure. Specifically, the court explained that "North Carolina law provides that the proper measure of damages for breach of contract is the amount necessary to put the injured party in the same monetary position that it would have been in if the breach had not occurred. . . . In order to prevent a double recovery, courts offset any amount that mitigates damages from the damage award." *Id*. at 972 (citations omitted). However, this case differs from *Canady* in the timing of the benefit to Entergy; here, that benefit remains inchoate because the relevant funds are tied up in a trust and intended for a purpose that pertains to circumstances which may not be in existence for some time. Entergy cannot access the pertinent funds it received in trust from Boston Edison until the plant ceases to operate. Further, those funds are intended to compensate Entergy for the costs it will bear to store spent nuclear fuel after shut-down.

The $40.03 million Entergy received to cover post-operational SNF storage costs represents compensation for an injury distinct from that which the re-racking projects were

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[37]NRC regulations require that a utility notify the NRC before seeking to amend a decommissioning trust agreement, and the NRC could object to amendments that do not meet certain requirements. *See* 10 C.F.R. 50.75(h)(1)(iii); 2009 Tr. 1129:13 to 1130:18 (Fredrichs).

intended to mitigate. That money is currently inaccessible to Entergy to cover its mitigation costs, and will remain inaccessible until it begins shut-down. It is too speculative to say that Entergy could have taken steps to obtain the NRC's approval for those funds to be accessible for current use in mitigating damages arising from DOE's breach. Moreover, Entergy is not obligated to attempt to prove to the NRC that special circumstances provide good cause for using the funds for a purpose other than that for which they were and are intended. Therefore, the government may not claim a recoupment for the $40.03 million trust fund amount at this time. The government's protest that Entergy is claiming a "double recovery" is without merit. Once Pilgrim enters shut-down and Entergy begins incurring costs for post-operational SNF storage, the government's recoupment claim will become ripe. In the meantime, the government is receiving regular payments from Entergy, as it is from all nuclear utilities, for services that it is not providing: spent fuel acceptance and storage. The government's claim for current recoupment of the $40.03 million benefit Entergy received upon sale of Pilgrim is denied.[38]

CONCLUSION

For the reasons stated, the court finds that Entergy is entitled to mitigation damages from and against the government for DOE's partial breach of the Standard Contract through December 31, 2008. The court awards Entergy $4,224,696 in damages, representing $2,932,000 for costs associated with the purchase and installation of spent fuel racks and $1,292,696 in NRC fees. Entergy's claim for cost of capital and the government's claims for offset or recoupment are rejected, although the government will have a valid claim for recoupment when the Pilgrim facility ceases operation. The clerk is requested to enter judgment for Entergy and against the government as specified.

Entergy is also awarded costs of suit.

Following the 2007 trial on Boston Edison's damages claim, the court entered a final judgment in favor of Boston Edison. However, on appeal that judgment was vacated by the Federal Circuit on the ground that the claims of Boston Edison and Entergy were sufficiently intertwined that judgment under RCFC 54(b) should not have been entered at that juncture. *See*

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[38]The government's recoupment claim sought the present value of the $40.03 million added to the decommissioning trust fund in July 1999, upon the sale of Pilgrim, although the government claimed that this was not a request for "interest" but rather for a full accounting of the growth of that money in the decommissioning trust. *See* Def.'s 2010 Post-Trial Br. at 25-26. Having rejected the government's recoupment claim as a current matter, the court need not decide this issue. However, the court observes that the government has yet to pay Boston Edison the $40.03 million in damages that were awarded. At the conclusion of this litigation, if it does pay that award, the government will not provide the present value of that money but rather will only make payment in nominal dollars. As neither Boston Edison nor Entergy may receive interest on their claims, neither may the government accrue interest on any offsets or recoupments it has against those claims.

Boston Edison, 299 Fed. Appx. at 958. Now that both Boston Edison's and Entergy's claims have been resolved, the clerk shall reenter final judgment in favor of Boston Edison in accord with the court's decision in *Boston Edison III*, 80 Fed. Cl. at 496, *i.e.*, Boston Edison is awarded $40,030,000 in damages from and against the government, and Boston Edison is also awarded its costs of suit.

On or before May 12, 2010, the parties were requested to submit proposed redactions of any confidential or proprietary information that may be set out in this decision rendered under seal.

It is so ORDERED.

s/ Charles F. Lettow
Charles F. Lettow
Judge