

MEMORANDUM OPINION, FINAL ORDER, AND FINAL JUDGMENT

This case arises from the Department of Energy's ("DOE") partial breach of the June 30, 1983 Standard Contract ("Standard Contract") between DOE and generators and owners of spent nuclear fuel ("SNF") and high-level radioactive waste ("HLW"). Although the Standard Contract required DOE to accept, transport, and dispose of SNF and HLW, DOE partially breached the Standard Contract on January 31, 1998. *See N. States Power Co. v. United States*, 224 F.3d 1361, 1367 (Fed. Cir. 2000) ("In brief, we hold that the unavoidable delays provision deals with delays arising after performance of the contract has begun, and does not bar a suit seeking damages for the [G]overnment's failure to begin performance at all by the statutory or contractual deadline of January 31, 1998."); *see also Me. Yankee Atomic Power Co. v. United States*, 225 F.3d 1336, 1343 (Fed. Cir. 2000) (affirming the United States Court of Federal Claims' determination that, because "DOE has not begun accepting, transporting, and disposing of [the plaintiff's] SNF[,] . . . DOE has breached the [Standard C]ontract.") (internal quotation marks omitted).

On November 5, 2005, Plaintiffs filed a Complaint in the United States Court of Federal Claims alleging that, because of the Government's breach of the Standard Contract, Plaintiffs incurred damages between January 15, 1998 and August 31, 2005. On October 11, 2007, the United States Court of Federal Claims awarded Plaintiffs \$10,014,114 in damages. *See Sys. Fuels, Inc. v. United States*, 78 Fed. Cl. 769 (2007).

On August 7, 2008, the United States Court of Appeals for the Federal Circuit issued three decisions to correct the causation analysis employed by the United States Court of Federal Claims: *Yankee Atomic Elec. Co. v. United States*, 536 F.3d 1268 (Fed. Cir. 2008); *Pacific Gas and Elec. Co. v. United States*, 536 F.3d 1282 (Fed. Cir. 2008); and *Sacramento Mun. Util. Dist. v. United States*, 293 F. App'x 766 (Fed. Cir. 2008). On March 10, 2009, SFI filed a Motion For Partial Reconsideration ("Pls. 3/10/2009 Recon. Mot."), because of this "intervening change in controlling law." Pls. 3/10/2009 Recon. Mot. at 1. On March 27, 2009, the Government filed a Response. On April 3, 2009, SFI filed a Reply. On July 20, 2009, the court convened an evidentiary hearing, and on September 16, 2009, the parties filed Final Post-Hearing Briefs. On March 11, 2010, the court issued order that reduced damages to \$9,735,634 and denied the costs of borrowed funds. *See Sys. Fuels, Inc. v. United States*, 92 Fed. Cl. 101, 114 (2010).

On January 19, 2012, the United States Court of Appeals for the Federal Circuit "affirm[ed] the denial of [SFI's] claim for the cost of borrowed funds[,] . . . reverse[d] the . . . denial of overhead costs[, and] . . . affirm[ed] the trial court's causation analysis and revised award of nominal damages." *Sys. Fuels, Inc. v. United States*, 666 F.3d 1306, 1313–14 (Fed. Cir. 2012). On April 11, 2012, the United States Court of Federal Claims issued final judgment in the amount of \$10,233,253. *See Order, Sys. Fuels, Inc. v. United States*, Case No. 03-2624 (Fed. Cl. April 11, 2012).

On August 10, 2011, Plaintiffs filed a new Complaint in the United States Court of Federal Claims, seeking damages from September 1, 2005 to July 31, 2011, caused by DOE's partial breach of the Standard Contract.

To facilitate review of this Memorandum Opinion And Final Judgment, the court has provided the following outline.

I. RELEVANT FACTUAL BACKGROUND.

- A. Prior Proceedings Before The United States Court Of Federal Claims.**
- B. *System Fuels, Inc., System Energy Resources, Inc. and South Mississippi Electric Power Association v. United States*, Case No. 11-511.**

II. RELEVANT PROCEDURAL HISTORY.

- A. Prior Proceedings Before The United States Court Of Federal Claims.**
- B. *System Fuels, Inc., System Energy Resources, Inc. and South Mississippi Electric Power Association v. United States*, Case No. 11-511.**

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I. RELEVANT FACTUAL BACKGROUND.

A. Prior Proceedings Before The United States Court Of Federal Claims.¹

In 1982, Congress enacted the Nuclear Waste Policy Act, 42 U.S.C. §§ 10101 *et seq.* (“NWPA”), pursuant to which the federal government assumed the legal duty to “provide for the permanent disposal” of spent nuclear fuel (“SNF”)² and/or high-level radioactive waste (“HLW”)³ from domestic utilities. *See* 42 U.S.C. § 10131(a)(4) (“Congress finds that . . . the Federal Government has the responsibility to provide for the permanent disposal of [HLW] and such [SNF] as may be disposed of in order to protect the public health and safety and the environment[.]”); *see also* 42 U.S.C. § 10131(b)(2) (establishing “the Federal responsibility, and a definite Federal policy, for the disposal of such waste and spent fuel”).

Congress also required the Department of Energy (“DOE”) to enter into Standard Contracts with the generators and owners of SNF and HLW by June 30, 1983, committing the DOE to accept, transport, and dispose of SNF and HLW. *See* 42 U.S.C. § 10222(b)(2) (“No [SNF or HLW] may be disposed of by the Secretary . . . unless the generator or owner of such [SNF or HLW] has entered into a contract with the Secretary under this section by not later than . . . June 30, 1983[.]”); *see also* 10 C.F.R. § 961.11 (setting forth “[t]he text of the [S]tandard [C]ontract for disposal of [SNF] and/or [HLW.]”).

The Standard Contract provided that, in return for the payment of fees from a utility, DOE would start disposing of the SNF and HLW covered by the contracts no later than January 31, 1998 and continue such services until disposal of all SNF and HLW was completed. *See* 42 U.S.C. § 10222(5)(B) (“[I]n return for payment of fees established by this section, the Secretary, beginning not later than January 31, 1998, will dispose of the [HLW] or [SNF] involved as provided in this subchapter.”); *see also* 10 C.F.R. § 961.11 at art. II (“The services to be provided by DOE under this contract shall begin, after commencement of facility operations, not later than January 31, 1998 and shall continue until such time as all SNF and/or HLW from the civilian nuclear power reactors . . . has been disposed of.”).

¹ *See Sys. Fuels, Inc. v. United States*, 66 Fed. Cl. 722, 735 (2005) (“*System Fuels I*”); *Sys. Fuels, Inc. v. United States*, 78 Fed. Cl. 769 (2007) (“*System Fuels II*”).

² Congress defined SNF as fuel that “has been withdrawn from a nuclear reactor following irradiation, the constituent elements of which have not been separated by reprocessing.” 42 U.S.C. § 10101(23). SNF contains toxic uranium and toxic byproducts, such as plutonium, and “remains radioactive after it is removed from a nuclear reactor and must be isolated in safe disposal facilities for thousands of years.” *Sacramento Mun. Util. Dist. v. United States*, 63 Fed. Cl. 495, 496 (2005) (“*SMUD II*”).

³ Congress defined HLW as “highly radioactive material resulting from the reprocessing of spent nuclear fuel, including liquid waste produced directly in reprocessing . . . and other highly radioactive material that the [Nuclear Regulatory] Commission, consistent with existing law, determines by rule requires permanent isolation.” 42 U.S.C. § 10101(12).

Between June 30, 1983 and July 22, 1986, System Fuels, Inc., System Energy Resources, Inc., and South Mississippi Electric Power Association (collectively hereinafter “SFI”) entered into a Standard Contract with DOE (“Standard Contract”). *See System Fuels II*, 78 Fed. Cl. 769, 777 (2007).

On January 31, 1998, DOE failed to perform its duties to dispose of SNF and HLW under the Standard Contract. *Id.* at 779.

In 2002, Plaintiffs began construction of an Independent Spent Fuel Storage Installation (“ISFSI”) to hold additional dry storage containers of SNF until DOE fulfilled its obligations under the Standard Contract. *Id.* at 783–85.

B. *System Fuels, Inc., System Energy Resources, Inc. and South Mississippi Electric Power Association v. United States*, Case No. 11-511.⁴

On an unspecified date, SFI constructed three bullet-resistant enclosures (“BREs”) to expand the protected area at Grand Gulf to include the ISFSI. 3/6/15 Chron. at 1 (citing PX 1297, 1515 (Invoices)); *see also* 7/21/14 TR at 41 (Carney). When the ISFSI was expanded, Plaintiffs hired additional security officers, and on April 14, 2006, the security officers began patrolling the expanded protected area. 7/21/14 TR at 235 (Dorsey).

Approximately from March 1, 2005 to August 31, 2005, SFI contracted with Enercon Services, Inc. (“Enercon”): to analyze the structural adequacy of the Grand Gulf auxiliary building’s 208-foot elevation (3/6/15 Chron. at 2 (citing PX477 (Contract); PX1309 (Invoice))); to modify the electrical system in the Grand Gulf auxiliary building, including providing power to the Holtec equipment and welding equipment for the forced helium dehydration system, the pump-down system, and the welding system (3/6/15 Chron. at 3 (citing PX477 (Contract); PX1309 (Invoice))); *see also* 7/21/14 TR at 98 (Warren)); to conduct general engineering analyses (3/6/15 Chron. at 2 (citing PX477 (Contract); PX1308–09 (Invoices))); and to remove the original Horizontal Fuel Transfer System (“HFTS”)⁵ and to design, fabricate, and install new racks to store

⁴ The facts discussed herein were derived from the parties’ March 6, 2015 Joint Notice (“3/6/15 Notice”) of a Chronology Of Disputed Costs (“3/6/15 Chron.”) and the exhibits cited therein. In addition, SFI claims Part 171 NRC fees and payroll loader costs associated with Plaintiffs’ labor incurred between September 2005 and present. 3/6/15 Chron. at 1, 3. SFI also claims incurred costs labeled as “Undiscussed” from Citibank incurred from September 1, 2005 to September 1, 2006, and from Holtec, incurred from January 1, 2007 to December 31, 2008. 3/6/15 Chron. at 3.

⁵ An HFTS is a conveyor belt system for transferring fuel assemblies and control blades between the fuel pool and the reactor vessel. DX1128, at 26 (Brewer Written Direct); *see also* 7/21/14 TR at 101 (Warren). Inserts on the HFTS hold items during transfer, and when not in use, they are stored in a storage rack in the cask storage pool. DX1128, at 26 (Brewer Written Direct); *see also* 7/21/14 TR at 101 (Warren). The original HFTS storage rack was moved to enable cask loading. DX1128, at 26–27 (Brewer Written Direct); *see also* 7/21/14 TR at 124 (Warren).

control rod inserts when they are not in use (3/6/15 Chron. at 2 (citing PX477 (Contract); PX1309 (Invoice)); *see also* 7/21/14 TR at 101–02 (Warren)).

Approximately from March 1, 2005 to December 1, 2005, SFI modified the low profile transporter haul path outside of the Grand Gulf auxiliary building to protect safety-related piping. 3/6/15 Chron. at 2. To do so, SFI contracted with Enercon—approximately from March 1, 2005 to August 31, 2005—and with Stone & Webster Construction Inc. A Shaw Group Company (“Stone & Webster”)—approximately from September 1, 2005 to December 1, 2005—and also provided its own materials and rented materials. 3/6/15 Chron. at 2 (citing PX477 (Enercon Contract); PX848 (Stone & Webster Contract); PX 1309 (Enercon Invoice)); *see also* 7/21/14 TR at 99–100 (Warren).

Approximately from June 15, 2005 to August 31, 2005, SFI contracted with Enercon to complete a seismic analysis of the Grand Gulf auxiliary building. 3/6/15 Chron. at 2 (citing PX485 (Contract); PX1391 (Invoice)).

Approximately from July 25, 2005 to February 26, 2006, SFI contracted with NISYS Corporation (“NISYS”) to conduct a dose assessment to evaluate the radiological conditions around the casks in the facility, at the pad, and at the site boundary. 3/6/15 Chron. at 1 (citing PX713 (Contract); PX1312, 1354–55 (Invoices)); *see also* 7/21/14 TR at 92–93 (Warren).

Approximately from August 22, 2005 to October 1, 2006, SFI contracted with Stone & Webster to modify the electrical system in the Grand Gulf auxiliary building, including providing power to the Holtec equipment and welding equipment for the forced helium dehydration system, the pump-down system, and the welding system. 3/6/15 Chron. at 3; *see also* 7/21/14 TR at 98 (Warren). SFI also provided materials, rented materials, and subcontracted with contractors. 3/6/15 Chron. at 3 (citing PX854 (Contract); PX1302, 1510 (Invoices)).

Approximately from September 1, 2005 to October 1, 2006, Plaintiff contracted with Stone & Webster to remove the original HFTS and to design, fabricate, and install new racks to store control rod inserts when they are not in use. 3/6/15 Chron. at 2.

Approximately from September 1, 2005 to August 1, 2009, Plaintiffs contracted with The Wackenhut Corporation (“Wackenhut”) to provide site security. 7/21/14 TR at 612 (Brown).

Approximately from September 22, 2005 to June 5, 2006, Plaintiffs responded to a Part 21 notification⁶ from its crane manufacturer, Whiting Corporation (“Whiting”). 3/6/15 Chron. at 1 (citing DX1115 (Contract)); *see also* 7/21/14 TR at 132 (Warren).

Approximately from November 8, 2005 to November 18, 2015, SFI contracted with Enercon to perform an evaluation of the crane and related structure to ensure that the spent fuel

⁶ Part 21 notifications inform customers that there is a design or material defect in a product. 7/21/14 TR at 132 (Warren). Plaintiffs claim \$6,009, including loaders, for this item. DX1129, at Att. 5-c (Peterson Written Direct).

cask crane would not drop the Holtec casks. 3/6/15 Chron. at 1 (citing PX488 (Contract); PX1717–19 (Invoices)); *see also* 7/21/14 TR 88–89 (Warren).

Approximately from November 14, 2005 to November 18, 2006, SFI performed cask washdown pit modifications and also contracted with Stone & Webster and Enercon to conduct cask washdown pit modifications. 3/6/15 Chron. at 1 (citing PX847 (Stone & Webster Contract); PX 491 (Enercon Contract); PX 1372, 1510 (Stone & Webster Invoices); PX1352–53, 1512 (Enercon Invoices)). Specifically, SFI installed a work platform to provide a safe work area for plant employees while they are welding the cask lids and performing other related tasks. 7/21/14 TR at 95–96 (Smith); *see also* PX2137, at 48, 68–69 (Supko Written Direct).

Approximately from December 12, 2005 to November 18, 2006, SFI contracted with Enercon to conduct: an evaluation of the installation of remote controls for the spent fuel cask crane for the stack-up operation in loading Holtec casks (3/6/15 Chron. at 1 (citing PX497 (Contract); PX1753 (Invoice)); *see also* 7/21/14 TR at 90–91 (Warren); 7/21/14 TR at 178–79 (Ellis); DX1128 (Brewer Written Direct)); and an operational sequence design analysis to evaluate the movement of Holtec Cask System components (3/6/15 Chron. at 1 (citing PX497 (Contract); PX1720–23 (Invoices)); *see also* 7/21/14 TR at 92–93 (Warren); PX2137, at 48–54 (Supko Written Direct)).

Approximately from March 1, 2006 to August 3, 2011, SFI loaded SNF into dry storage casks at Grand Gulf. 3/6/15 Chron. at 3. This included contracting with Welding Services Inc. (“WSI”) and Westinghouse Electric Co. (“Westinghouse”). 3/6/15 Chron. at 3 (citing PX957, 960–63, 965, 990 (Contracts); PX1704, 1863, 1879 (Invoices)).

On an unspecified date in 2006, SFI mistakenly loaded SNF fuel assemblies that did not meet the standard of the Certificate of Compliance into dry storage casks due to an error in Plaintiffs’ SNF database. DX1128, at 17 (Brewer Written Direct); *see also* 7/24/14 TR at 982, 987 (stating that the database contained an error in burnup data for Grand Gulf fuel), 999 (Smith). On an unspecified date in 2008, the parties discovered their mistake when the non-compliant SNF was loaded into dry storage at Grand Gulf. DX1128, at 17 (Brewer Written Direct); *see also* 7/24/14 TR at 982, 987 (stating that the database contained an error in burnup data for Grand Gulf fuel), 999 (Smith). On December 22, 2008, SFI requested an exemption, and on an unspecified date, the NRC granted an exemption, so that SFI did not have to return the cask to the pool and unload it. 7/24/14 TR at 1008–10 (Smith); *see also* DX1076 (Plaintiffs’ Exemption Request). Approximately from July 16, 2008 to August 1, 2008, SFI contracted with Holtec to assist in remedying this mistake. 3/6/15 Chron. at 1 (citing PX647 (Contract); PX1803 (Invoice)).

On August 1, 2009, SFI’s employees assumed the security duties of Wackenhut. 7/21/14 TR at 270–71 (Dorsey); *see also* 7/21/14 TR at 576 (Byrnes).

To date, DOE has not commenced performance under the Standard Contract. 7/21/14 TR at 58 (Rives).

II. RELEVANT PROCEDURAL HISTORY.

A. Prior Proceedings Before The United States Court Of Federal Claims.

In 2000, the United States Court of Appeals for the Federal Circuit held that DOE had partially breached the Standard Contract with the nuclear energy industry. *See N. States Power Co. v. United States*, 224 F.3d 1361, 1367 (Fed. Cir. 2000) (“In brief, we hold that the unavoidable delays provision deals with delays arising after performance of the contract has begun, and does not bar a suit seeking damages for the [G]overnment’s failure to begin performance at all by the statutory or contractual deadline of January 31, 1998.”); *see also Me. Yankee Atomic Power Co. v. United States*, 225 F.3d 1336, 1343 (Fed. Cir. 2000) (affirming the United States Court of Federal Claims’ holding that, because “DOE has not begun accepting, transporting, and disposing of [the plaintiff’s] SNF[,] . . . DOE has breached the contract.”) (internal quotation marks omitted).

On November 5, 2003, SFI filed a Complaint in the United States Court of Federal Claims alleging: Count I—partial breach of the June 30, 1983 Standard Contract; and Count II—breach of the implied covenant of good faith and fair dealing. The November 5, 2003 Complaint asserted that the January 31, 1998 partial breach of the Standard Contract caused SFI to incur \$12,178,000 in costs during the period of January 15, 1998 through August 31, 2005. On November 5, 2003, this case was assigned to the undersigned judge.

On July 29, 2005, the court issued a Memorandum Opinion And Order that: granted SFI’s October 29, 2004 Motion For Summary Judgment On Liability; denied the Government’s December 6, 2004 Cross-Motion For Summary Judgment as to Count I—liability for partial breach of SFI’s June 30, 1983 Standard Contract; and granted the Government’s December 6, 2004 Cross-Motion For Summary Judgment as to Count II—breach of implied covenant of good faith and fair dealing. *See System Fuels I*, 66 Fed. Cl. 722, 735 (2005). Regarding damages, the court stated, “Whether any specific damages were caused by the Government’s partial breach and the final determination of damages due, if any, has not been adjudicated and can only be determined after an evidentiary hearing.” *Id.*

On September 9, 2005, the United States Court of Appeals for the Federal Circuit ruled, in a similar case involving the Government’s partial breach of the Standard Contract, that when “[the utility’s] claim is premised upon the [G]overnment’s partial breach, its damages [are] limited to those costs incurred prior to the date of its suit.” *Ind. Mich. Power Co. v. United States*, 422 F.3d 1369, 1376–77 (Fed. Cir. 2005).

On October 11, 2007, the court issued a Memorandum Opinion And Order that: held that SFI established, by clear and convincing evidence, that a “substantial portion” of the \$10,591,000 in costs SFI incurred from January 15, 1998 to August 31, 2005 should be awarded as mitigation damages; awarded SFI \$10,014,114; and held that SFI was entitled to recover the cost of borrowed funds following clarification as to the “mitigation damages . . . [SFI] . . . incurred from January 15, 1998 to August 31, 2005.” *System Fuels II*, 78 Fed. Cl. at 809–10.

On August 7, 2008, the United States Court of Appeals for the Federal Circuit issued three decisions to correct the causation analysis employed by the United States Court of Federal Claims:

Yankee Atomic Elec. Co. v. United States, 536 F.3d 1268 (Fed. Cir. 2008); *Pac. Gas and Elec. Co. v. United States*, 536 F.3d 1282 (Fed. Cir. 2008); and *Sacramento Mun. Util. Dist. v. United States*, 293 F. App'x 766 (Fed. Cir. 2008) (“*SMUD V*”).

On March 11, 2010, the court issued a Memorandum Opinion On Reconsideration And Final Order that: reduced damages to \$9,735,634; and denied the costs of borrowed funds, pursuant to *England v. Contel Advanced Sys., Inc.*, 384 F.3d 1372, 1379 (Fed. Cir. 2004), although the court stated that “*England* misconstrued the scope of the ‘no-interest rule’” and “conflicts with prior precedent awarding interest as a component of breach of contract damages.” *System Fuels, Inc. v. United States*, 92 Fed. Cl. 101, 114 (2010) (“*System Fuels III*”).

On May 10, 2010, SFI filed a Notice Of Appeal, and the Government filed a Notice Of Cross-Appeal. On January 19, 2012, the United States Court of Appeals for the Federal Circuit “affirm[ed] the denial of [SFI’s] claim for the cost of borrowed funds[,] reverse[d] the . . . denial of overhead costs[, and] affirm[ed] the trial court’s causation analysis and revised award of nominal damages.” *System Fuels, Inc. v. United States*, 666 F.3d 1306, 1313–14 (Fed. Cir. 2012) (“*System Fuels IV*”).

On March 12, 2012, the mandate from the United States Court of Appeals for the Federal Circuit issued.

On March 21, 2012, SFI filed a Motion For Entry Of Final Judgment In Sum Certain, requesting final judgment in the amount of \$10,233,253, plus costs. On April 9, 2012, the Government filed a Response, requesting final judgment in the amount of \$10,233,253, but excluding costs.

On April 11, 2012, the court issued a Final Order For Judgment in the amount of \$10,233,253, but denying certain costs. See Order, *System Fuels, Inc. v. United States*, Case No. 03-2624 (Fed. Cl. April 11, 2012) (“*System Fuels V*”).

B. *System Fuels, Inc., System Energy Resources, Inc. and South Mississippi Electric Power Association v. United States*, Case No. 11-511.

On August 10, 2011, SFI (“Plaintiffs”) filed a Complaint in the United States Court of Federal Claims (“Compl.”), seeking “damages incurred during the period between and including September 1, 2005 and July 31, 2011 caused by the Government’s partial material breach of its unconditional obligation to begin disposing of SNF[.]” Compl. ¶ 2. Plaintiffs’ August 10, 2011 Complaint seeks damages of \$54,051,709 for: partial breach of the June 30, 1983 Standard Contract (Count I); breach of the implied covenant of good faith and fair dealing (Count II); and a taking without just compensation (Count III). Compl. ¶¶ 23–26, 27–31, 32–35; see also 7/18/14 Jt. Stip. ¶ 2. On that date, Plaintiffs also filed a Notice Of Directly Related Case, and this case was assigned to the undersigned judge.

On October 8, 2011, the Government filed an Answer.

On November 29, 2011, the parties filed a Joint Preliminary Status Report. On December 5, 2011, the court held a telephonic status conference and entered a Discovery Scheduling Order. On September 21, 2012, the court held another telephonic status conference.

On October 3, 2012 and February 25, 2013, the court entered Orders To Amend Schedule.

On April 16, 2013, Plaintiffs filed a Motion To Permit Designation Of An Additional Expert And Fact Witness And To Amend Pre-Trial Schedule. On May 21, 2013, the court held a telephonic status conference. On June 13, 2013, the court entered an Order denying Plaintiffs' April 16, 2013 Motion.

On June 14, 2013 and July 24, 2014, the court entered Orders To Amend Schedule.

On September 5, 2013 and September 23, 2013, the court entered Orders Granting Extension of Time To Complete Discovery.

On October 4, 2013, the Government filed a Motion To Stay In Light Of Lapse Of Appropriations that the court granted that same day. On October 18, 2013, the court entered an Order Lifting Stay And Scheduling Order.

On January 3, 2013, the court entered a Scheduling And Trial Management Order. On January 10, 2014, the court held a telephonic status conference. On January 30, 2014, the parties filed a Joint Status Report. On February 3, 2014, the court entered a revised Scheduling Order.

On May 16, 2014, the parties filed a Joint Status Report.

On May 23, 2014, Plaintiffs filed a Pretrial Memorandum Of Contentions Of Fact And Law, a Witness List, an Exhibit List, and a Notice Of Deposition Testimony Designations. On June 24, 2014, the Government filed a Pretrial Memorandum Of Contentions Of Fact And Law, a Witness List, and an Exhibit List.

On July 16, 2014, Plaintiffs and the Government filed separate Objections To Exhibit Lists. On July 18, 2014, Plaintiffs and the Government filed a Joint Stipulation Regarding Damages ("7/18/14 Jt. Stip.")⁷ On July 20, 2014, Plaintiffs filed the Expert Report Of Eileen M. Supko. PX2137. On July 21, 2014, Plaintiffs filed the Export Report Of Kenneth P. Metcalfe. PX2138.

From July 21, 2014 to July 24, 2014, the court held a trial on damages at the United States Court of Federal Claims in Washington, D.C. At the conclusion of the trial, the court asked the Government whether it would oppose the court entering judgment for the undisputed \$38,839,591. 7/24/14 TR at 1078; *see also* DX1129, at Att. 1-b (Peterson Written Direct).

On August 1, 2014, the Government filed a Notice ("Gov't 8/1/14 Notice"), in response to the court's inquiry, stating that "the Government must respectfully oppose the entry of a judgment that would only adjudicate a portion of [P]laintiffs' claim for partial breach of contract damages" and arguing that entry of partial final judgment, pursuant to the Rules of the United States Court of Federal Claims ("RCFC") 54(b), would be improper. Gov't 8/1/14 Notice at 1-2; *see also* Gov't

⁷ In addition to stipulating the parties' agreement that certain costs were incurred and supported by adequate contemporaneous documentation, the parties' July 18, 2014 Joint Stipulation also explains the Government's contentions that certain costs would have been incurred in the non-breach world or were not supported by adequate contemporaneous documentation.

8/1/14 Notice at 2–7. On August 8, 2014, Plaintiffs filed a Motion For Entry Of Partial Final Judgment, Pursuant To RCFC 54(b), for entry of partial final judgment in the amount of \$38,839,591 (“Pls. 8/8/14 Mot.”).

On September 8, 2014, the Government filed a Response (“Gov’t 9/8/14 Resp.”). On September 25, 2014, Plaintiffs filed a Reply (“Pls. 9/25/14 Reply”).

On October 3, 2014, Plaintiffs and the Government filed separate Post-Trial Briefs (“Pls. 10/3/14 Br.” and “Gov’t 10/3/14 Br.”).⁸ On November 13, 2014, Plaintiffs and the United States filed separate Post-Trial Reply Briefs (“Pls. 11/13/14 Reply” and “Gov’t 11/13/14 Reply”).

On January 23, 2015, the Government filed a Notice Of Supplemental Authority (“Gov’t 1/23/15 Notice”) of the United States Court of Federal Claims’ decision in *Alabama Power Co. v. United States*. See *Ala. Power Co. v. United States*, No. 08-237C, 2014 WL 7465683, at *20–*21 (Fed. Cl. Dec. 29, 2014) (“*Alabama Power*”) (determining that a SNF plaintiff was not entitled to cask loading costs, because it did not compare loading costs in the breach and non-breach worlds). On February 5, 2015, Plaintiffs filed a Response (“Pls. 2/5/15 Resp.”). On February 11, 2015, the Government filed a Reply (“Gov’t 2/11/15 Reply”).

On March 6, 2015, the parties filed a Joint Notice (“3/6/15 Notice”) to file a Chronology Of Disputed Costs (“3/6/15 Chron.”).

III. DISCUSSION.

A. Jurisdiction.

The United States Court of Federal Claims has jurisdiction under the Tucker Act, 28 U.S.C. § 1491, “to render judgment upon any claim against the United States founded either upon the Constitution, or any Act of Congress or any regulation of an executive department, or upon any express or implied contract with the United States, or for liquidated or unliquidated damages in cases not sounding in tort.” 28 U.S.C. § 1491(a)(1). The Tucker Act, however, is “a jurisdictional statute; it does not create any substantive right enforceable against the United States for money damages [T]he Act merely confers jurisdiction upon [the United States Court of Federal Claims] whenever the substantive right exists.” *United States v. Testan*, 424 U.S. 392, 398 (1976).

To pursue a substantive right under the Tucker Act, a plaintiff must identify and plead an independent contractual relationship, Constitutional provision, federal statute, and/or executive agency regulation that provides a substantive right to money damages. See *Todd v. United States*, 386 F.3d 1091, 1094 (Fed. Cir. 2004) (“[J]urisdiction under the Tucker Act requires the litigant to identify a substantive right for money damages against the United States separate from the Tucker

⁸ The Government filed the October 3, 2014 Post-Trial Brief under seal “out of an abundance of caution.” Gov’t 10/3/14 Br. at 1 n.1. On October 7, 2014, the Government re-filed the same Post-Trial Brief on the record. Because the Government’s October 3, 2014 and October 7, 2014 Post-Trial Briefs are substantively identical, the court will refer only to the Government’s October 3, 2014 Brief.

Act[.]”); *see also Fisher v. United States*, 402 F.3d 1167, 1172 (Fed. Cir. 2005) (*en banc*) (“The Tucker Act . . . does not create a substantive cause of action; . . . a plaintiff must identify a separate source of substantive law that creates the right to money damages. . . . [T]hat source must be ‘money-mandating.’”). Specifically, a plaintiff must demonstrate that the source of substantive law upon which he relies “can fairly be interpreted as mandating compensation by the Federal Government[.]” *Testan*, 424 U.S. at 400. And, the plaintiff bears the burden of establishing jurisdiction by a preponderance of the evidence. *See Reynolds v. Army & Air Force Exch. Serv.*, 846 F.2d 746, 748 (Fed. Cir. 1988) (“[O]nce the [trial] court’s subject matter jurisdiction [is] put in question . . . [the plaintiff] bears the burden of establishing subject matter jurisdiction by a preponderance of the evidence.”).

To establish jurisdiction in the United States Court of Federal Claims based on an independent contractual relationship, “[Plaintiffs] must show that either an express or implied-in-fact contract underlies [the] claim” at issue. *See Trauma Serv. Group v. United States*, 104 F.3d 1321, 1325 (Fed. Cir. 1997). A well-pleaded allegation in the complaint is sufficient to overcome challenges to jurisdiction. *See Spruill v. Merit Sys. Protection Bd.*, 978 F.2d 679, 686 (Fed. Cir. 1992) (“[J]urisdiction has been found to exist on the basis of well-pleaded allegations in the complaint[.]”).

In this case, the court previously has determined that Plaintiffs properly pled a contractual relationship with the Government and that the court has jurisdiction to adjudicate Plaintiffs’ claims. *See System Fuels I*, 66 Fed. Cl. at 727 (“In this case, [Plaintiffs] properly plead a contractual relationship with the Government. . . . Therefore, the court has determined that it has jurisdiction to adjudicate [Plaintiffs’] claims in this case.”) (internal citation omitted). Plaintiffs’ August 10, 2011 Complaint also alleges that an express contract is the basis for their claim. *See* Compl. ¶ 2 (alleging that DOE breach the Standard Contract). Accordingly, the August 10, 2011 Complaint properly has pled a contractual relationship with the Government. *See Trauma Serv. Group*, 104 F.3d at 1325 (“[Plaintiffs] must show that either an express or implied-in-fact contract underlies [the] claim” at issue.).

B. Standing.

Federal trial courts should “decide standing questions at the outset of a case. That order of decision (first jurisdiction then the merits) helps better to restrict the use of the federal courts to those adversarial disputes that Article III defines as the federal judiciary’s business.” *Steel Co. v. Citizens for a Better Env’t*, 523 U.S. 83, 111 (1998) (Breyer, J., concurring). The party invoking federal jurisdiction, however, has the burden of proof and persuasion to satisfy the constitutional requirements of Article III standing. *See FEW/PBS, Inc. v. Dallas*, 493 U.S. 215, 231 (1990) (holding that the burden is on the party seeking to exercise jurisdiction clearly to allege facts sufficient to establish jurisdiction).

To establish standing on a contract claim, a plaintiff is required to be in privity of contract with the United States. *See, e.g., Anderson v. United States*, 344 F.3d 1343, 1351 (Fed. Cir. 2003) (“To have standing to sue the sovereign on a contract claim, a plaintiff must be in privity of contract with the United States.”); *Castle v. United States*, 301 F.3d 1328, 1339 (Fed. Cir. 2002) (holding that only direct parties to the contract have standing to allege breach of contract claims based upon the contract); *Cienega Gardens v. United States*, 194 F.3d 1231, 1239 (Fed. Cir. 1998) (“The effect

of finding privity of contract between a party and the United States is to find a waiver of sovereign immunity.”); *Erickson Air Crane Co. v. United States*, 731 F.2d 810, 813 (Fed. Cir. 1987) (“The [G]overnment consents to be sued only by those with whom it has privity of contract[.]”).

In this case, the court previously determined that Plaintiffs are in privity of contract with the United States and satisfied standing requirements with respect to the breach of contract claims alleged. *See System Fuels I*, 66 Fed. Cl. at 727 (“Since there is no evidence in the record that SFI sold or assigned rights under the June 30, 1983 Standard Contract, the court has determined that SFI has standing to bring this action.”).

C. Standard of Review.⁹

Plaintiffs may recover damages for partial breach of contract in the SNF context where: “(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.” *Ind. Mich. Power Co.*, 422 F.3d at 1373 (citing *Energy Capital Corp. v. United States*, 302 F.3d 1314, 1320 (Fed. Cir. 2002)).

“The remedy for breach of 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.” *Ind. Mich. Power Co.*, 422 F.3d at 1373 (citing *San Carlos Irrigation & Drainage Dist. v. United States*, 111 F.3d 1557, 1562 (Fed. Cir. 1997)). “[T]he general principle is that all losses, however described, are recoverable,” including mitigation damages. RESTATEMENT (SECOND) OF CONTRACTS § 347 cmt. c (1981); *see also Ind. Mich. Power Co.*, 422 F.3d at 1375 (“[M]itigation damages are available for pre-breach costs should the obligee elect to treat the obligor’s breach as partial, while pre-breach damages for anticipatory breach are available should a party elect to treat the obligor’s breach as total.”).

Plaintiffs “bear the burden to establish the alleged mitigation costs were caused by the breach.” *System Fuels IV*, 666 F.3d at 1312 (citing *Energy Nw. v. United States*, 641 F.3d 1300, 1307 (Fed. Cir. 2011)). “[P]laintiff[s] must prove the extent to which [their] incurred costs differ from the costs [they] would have incurred in the non-breach world.” *Energy Nw.*, 641 F.3d at 1306; *see also S. Nuclear Operating Co. v. United States*, 637 F.3d 1297, 1304 (Fed. Cir. 2011) (“As we held in *Yankee Atomic*, [b]ecause plaintiffs . . . are seeking expectancy damages, it is incumbent upon them to establish a plausible ‘but for’ world.”) (internal quotation omitted). But, plaintiffs are “not precluded from recovery . . . to the extent that [they] ha[ve] made reasonable but unsuccessful efforts to avoid loss.” *Ind. Mich. Power Co.*, 422 F.3d at 1375 (internal quotation omitted).

⁹ The parties extensively briefed the standard of review. Pls. 10/3/14 Br. at 24–30; Gov’t 10/3/14 Br. at 8–12; Pls. 11/13/14 Reply at 2–6; and Gov’t 11/13/14 Reply at 2–5. But, these arguments are also articulated in the parties’ arguments as to particular costs alleged by Plaintiffs, so the court will address the parties’ standard of review arguments therein.

D. The Parties Do Not Dispute That Plaintiffs Are Entitled To \$38,839,591 In Damages For Costs From September 1, 2005 To July 31, 2011.

The August 10, 2011 Complaint seeks \$54,051,709 for damages for costs incurred from September 1, 2005 to July 31, 2011, caused by the Government's partial breach of the June 30, 1983 Standard Contract (Count I); breach of the implied covenant of good faith and fair dealing (Count II); and a taking without just compensation (Count III). Compl. ¶¶ 23–26, 27–31, 32–35;¹⁰ *see also* 7/18/14 Jt. Stip. ¶ 1. Prior to trial, the parties stipulated as to the sufficiency of the documentary support for the majority of the damages that Plaintiffs claim, including an undisputed amount of \$38,839,591. 7/18/14 Jt. Stip. ¶ 2; 7/24/14 TR at 1078–83 (Peterson); DX1129 (Peterson Written Direct).¹¹ At trial, Plaintiffs provided sufficient evidentiary support of the undisputed \$38,839,591 through the testimony of eight fact witnesses and two expert witnesses. PX2137 (Supko Written Direct); PX2138 (Metcalf Expert Report); 7/21/14 TR at 50–65 (Rives); 7/21/14 TR at 65–112 (Warren); 7/21/14 TR at 150–83 (Ellis); 7/21/14 TR at 215–85 (Dorsey); 7/22/14 TR at 574–88 (Byrnes); 7/22/14 TR at 611–25 (Brown); 7/22/14 TR at 650–62 (Supko); 7/23/14 TR at 751–73 (Barras); 7/23/14 TR at 824–44 (Metcalf); 7/24/14 TR at 978–1012 (Smith); 7/24/14 TR at 730, 1018–46 (Zabransky); 7/24/14 TR at 1060–75 (Peterson). The Government did not present any evidence at trial challenging the \$38,839,591, and the Government does not dispute this amount today. 8/1/14 Notice at 1 (citing DX1129 (Peterson Written Direct) (disputing \$15,212,118 in costs)); *see also* Gov't 10/3/14 Br. at 3–5 (stating that the costs at issue are \$14,934,102—including \$8,761,751 in “new” costs and \$6,172,351 in costs previously addressed by the court, plus the cost of fabricating a lift yoke stand).

Because Plaintiffs have sufficiently demonstrated their entitlement to the \$38,839,591 and the Government does not dispute this amount, the court has determined that Plaintiffs are entitled to the \$38,839,591.

¹⁰ Because the parties did not discuss Counts II and III in their briefs, the court has not done so either.

¹¹ At trial, during the voir dire of Mr. Peterson, Plaintiffs challenged Mr. Peterson's qualifications as an expert witness on payroll loaders and on plant security costs. 7/24/14 TR at 1069–72 (Peterson). Regarding payroll loaders, Plaintiffs argued that Mr. Peterson is “not an accountant” and that “no one at [Mr. Peterson's] firm who is a [Certified Public Accountant] worked on this report concerning the [payroll] loaders that are at issue.” 7/24/14 TR at 1070 (Peterson). Regarding plant security costs, Plaintiffs contended that Mr. Peterson has “never worked in the security field.” 7/24/14 TR at 1071. But, Mr. Peterson has extensive experience testifying in SNF cases, was previously qualified as an expert in this case, and testified about payroll loaders and plant security instead of the minutiae of the fields. 7/24/14 TR at 1063–64, 1072–73 (Peterson). For these reasons, the court has determined that Mr. Peterson is qualified to proffer expert testimony in this case. *See* FED. R. EVID. 702 (stating that an expert may testify if: “(a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.”).

E. Whether Collateral Estoppel Applies To Certain Categories Of Damages Claimed In Plaintiffs' August 10, 2011 Complaint.

1. Plaintiffs' Argument.

Plaintiffs argue that “the Government challenges certain categories of damages that continued into the current claim period—operational sequence and dose assessment, [a]uxiliary [b]uilding and plant modifications, and cask loading costs—that were decided by the [c]ourt in Round I of this case.” Pls. 10/3/14 Br. at 31. These categories of damages include: \$1,718,311 for the operational sequence and dose assessment; \$1,025,949 for the cask crane and related structural evaluation; \$185,399 for cask crane remote control modifications; \$550,166 for cask washdown pit modifications; \$353,896 for modifications to the electrical system at the auxiliary building; \$468,903 for the reinforcement of the low profile transporter haul path; \$95,635 for removing the HFTS storage rack and installing two new racks; \$66,003 for seismic and structural analyses of the auxiliary building; purchasing an installing the lift yoke stand; and \$4,757,647 in cask loading offsets. Pls. 10/3/14 Br. at 31–45.

Plaintiffs also contend that “[t]he [c]ourt need not and should not revisit issues and arguments that were previously decided and collateral estoppel should apply to preclude such duplication.” Pls. 10/3/14 Br. at 31 (citing *Ammex, Inc. v. United States*, 384 F.3d 1368, 1371 (Fed. Cir. 2004) (applying collateral estoppel to preclude re-litigation of issue decided in previous case); *see also* Pls. 11/13/14 Reply at 20 (same). In addition, “[t]he Government all but concedes that collateral estoppel applies.” Pls. 11/13/14 Br. at 21 (citing Gov’t 10/3/14 Br. at 47). Therefore, the court should apply collateral estoppel and award Plaintiffs \$8,136,189 in costs for the operational sequence and dose assessment, auxiliary building and plant modifications, and cask loading. Pls. 10/3/14 Br. at 31–32.

2. The Government's Response.

The Government responds that Plaintiffs’ collateral estoppel arguments “are premised upon a misunderstanding of the law, and disregard the change in legal atmosphere that has occurred since the first round.” Gov’t 10/3/14 Br. at 3. Moreover, Plaintiffs’ “own reliance on inconsistent arguments . . . militates against the application of the doctrine.” Gov’t 10/3/14 Br. at 4.

Collateral estoppel does not apply when “there has been a change in the legal landscape.” Gov’t 10/3/14 Br. at 45 (citing *Bingaman v. Dep’t of Treasury*, 127 F.3d 1431, 1438 (Fed. Cir. 1997) (“[A] significant change in the ‘legal atmosphere’—whether in the form of new legislation, a new court decision, or even a new administrative ruling—can justify a later court’s refusal to give collateral estoppel effect to an earlier decision.”)). In this case, the change in legal landscape since *System Fuels II*, “caused [Plaintiffs] to change the method by which [they] attempted to prove damages in this case from the manner in which it did so in the first case.” Gov’t 10/3/14 Br. at 45–46 (citing *System Fuels II*, 78 Fed. Cl. at 800–02) (determining “what the Government would have done in a non-breach world would entail speculation,” and the Government did not provide “evidence of what type of cask DOE will require”).

On April 7, 2011, the United States Court of Appeals for the Federal Circuit held “that an SNF plaintiff ‘is entitled to recover the costs of those [plant] modifications only to the extent it

can prove, to a reasonable certainty, that but for the [G]overnment's breach they would not have been incurred.” Gov't 10/3/14 Br. at 46 (quoting *Energy Nw.*, 641 F.3d at 1307). In addition, the United States Court of Appeals for the Federal Circuit held that a SNF plaintiff bears the burden of proving the costs of the non-breach world and whether any Government challenges as “offsets” are proper. Gov't 10/3/14 Br. at 46 (citing *Energy Nw.*, 641 F.3d at 1308 & n.5 (stating that there is “no reason why the burden of proving the non-breach world—as to the plant modifications—should not lie with [the SNF plaintiff],” since the Government is not “seeking an offset due to avoided costs, but [is] arguing that certain [incurred costs] were not caused by the breach in the first place”)); *see also* Gov't 11/13/14 Reply at 25 (stating that Plaintiffs' “single conclusory paragraph” on collateral estoppel did not satisfy Plaintiffs' burden to satisfy each element of collateral estoppel) (citing *Boston Edison Co. v. United States*, 64 Fed. Cl. 167, 185 (2005) (“The party seeking preclusion by collateral estoppel bears the burden of establishing each of the necessary elements.”))).

The Government acknowledges that the United States Court of Appeals for “the Federal Circuit, post-*Energy Northwest*, affirmed this [c]ourt's first round causation findings with respect to, among other items, the auxiliary building modifications.” Gov't 10/3/14 Br. at 47 (citing *System Fuels IV*, 666 F.3d at 1312–13 (affirming the court's causation findings but stating that the court should not have placed the burden of proof on the Government)). But, Plaintiffs “recognized that, under the altered legal landscape, it could not prove damages for what it has characterized as the ‘new’ issues . . . without meeting its burden of proof under *Energy Northwest* to depict the ‘but for’ world of DOE performance.” Gov't 10/3/14 Br. at 47 (noting that Plaintiffs' expert, Ms. Supko, “declined to address the continuing costs for modifications upon which the [c]ourt had already ruled in the first case,” but instead “described why [the ‘new’] modifications would not be necessary for loading DOE casks”) (citing PX2137, at 15–17, 45–76 (Supko Written Direct))).

The Government further contends that Plaintiffs arguments are contradictory. Gov't 10/3/14 Br. at 48. Plaintiffs rely on the court's findings in *System Fuels II* that were based on the fact that the parameters of the DOE casks were not known, but claim damages for “new” issues since they “ha[ve] now identified the range of possible DOE ‘but for’ world casks, and ha[ve] determined that certain modifications [they] seek[] would not have been needed for such casks.” Gov't 10/3/14 Br. at 48. Therefore, the court should decline to apply collateral estoppel in this case, because of this “inherent inconsistency.” Gov't 10/3/14 Br. at 48 (citing *Technographs Printed Circuits, Ltd. v. United States*, 372 F.2d 969, 977 (Ct. Cl. 1967) (“Even if all preconditions are met, collateral estoppel will not apply to a question of law[,] if injustice would result.”)).

In addition, Plaintiffs “ha[ve] changed essential facts by proffering expert testimony about the parameters of DOE casks to justify its entitlement to costs for so-called ‘new’ modifications.” Gov't 10/3/14 Br. at 48–49 (citing PX2137, at 17 (Supko Written Direct) (stating “the general features (cask weight, cask dimension, and cask loading operations) of a transportation cask design that plausibly would have been suitable for use by DOE to accept SNF from Grand Gulf in the non-breach world”)). Because “‘changes in facts essential to a judgment will render collateral estoppel inapplicable in a subsequent action raising the same issues’” and the court determined that the unknown parameters of the DOE cask were “essential” in *System Fuels II*, the court “should decline to apply collateral estoppel.” Gov't 10/3/14 Br. at 48–49 (quoting *Baby Dolls Topless Saloons, Inc. v. City of Dallas*, 295 F.3d 471, 479 (5th Cir. 2002)).

In sum, the Government contends that collateral estoppel does not apply in this case, because “[n]o casks were loaded during the first round claim period. . . . , [so] the issue of [Plaintiffs’] actual incurred loading costs was not before the [c]ourt during the first round.” Gov’t 10/3/14 Br. at 49 (citing *Arkla, Inc. v. United States*, 37 F.3d 621, 624 (Fed. Cir. 1994) (“Collateral estoppel is only appropriate if . . . the issue to be decided is identical to one decided in the first action[.]”)); *Laguna Hermosa Corp. v. United States*, 671 F.3d 1284, 1288 (Fed. Cir. 2012) (holding that collateral estoppel does not apply when the issues are not identical)). In *System Fuels II*, the Government sought an offset, but in this case, the Government challenges incurred costs. Gov’t 10/3/14 Br. at 49–50. The Government’s challenge to these “incurred costs is not analyzed under the avoided costs rubric of *Carolina Power*, but instead under the incurred cost analysis set forth in *Energy Northwest*.” Gov’t 10/3/14 Br. at 50 (citing *Carolina Power & Light Co. v. United States*, 573 F.3d 1271, 1277 (Fed. Cir. 2009) (“Plaintiffs have not avoided the costs of loading. Rather, they have merely deferred these costs.”); *Energy Nw.*, 641 F.3d at 1306 (“*Carolina Power* presents a separate, if superficially similar, issue.”)). For this reason, the United States Court of Federal Claims recently distinguished between loading cost offsets from actual incurred loading costs and determined that collateral estoppel did not apply. See *Energy Nw. v. United States*, 115 Fed. Cl. 69, 74–76 & n.7 (2014) (“*Energy Nw II*”). The *Energy Nw II* court also determined that “there was no principled basis under the [United States Court of Appeals for the] Federal Circuit’s holdings to distinguish between incurred loading costs sought by a[] SNF plaintiff, and incurred plant modification and fuel characterization costs” that must be proven in a “but for” world. Gov’t 10/3/14 Br. at 51 (citing *Energy Nw II*, 115 Fed. Cl. at 76).

3. The Court’s Resolution.

Collateral estoppel applies when: (1) the issues are “identical” to those litigated in the prior proceeding; (2) the issues were “actually litigated” in the prior proceeding; (3) the prior “resolution of those issues was necessary to [the] resulting judgment”; and (4) the plaintiff “was afforded a full and fair opportunity to litigate its position.” *Ammex, Inc.*, 384 F.3d at 1371; see also *Dana v. E.S. Originals, Inc.*, 342 F.3d 1320, 1323 (Fed. Cir. 2003) (same).

In this case, the issues are neither “identical,” nor actually litigated in the prior proceeding. See *Energy Nw II*, 115 Fed. Cl. at 76 n.7 (“Collateral estoppel does not apply here because the first two elements—that the issues in the prior proceeding are identical to the issue in the present proceeding and were litigated in the prior action—are not satisfied. Whereas the issue that was litigated in [the prior proceeding] was whether [the plaintiff] avoided the costs of loading in the future, the issue here is what costs [the plaintiff] would have incurred for loading in the non-breach world, and, thus, whether the damages that [the plaintiff] requests for cask loading were caused by the breach.”); see also *Ammex, Inc.*, 384 at 1371 (holding that the previously litigated issues must be “identical” and have been “actually litigated”); *Sacramento Mun. Util. Dist. v. United States*, 566 F. App’x 985, 993–94 (Fed. Cir. 2014) (“*SMUD VIII*”) (holding that collateral estoppel did not apply in a second round SNF case, because there was an intervening change in the law and the issues were not identical).

For these reasons, the court has determined that collateral estoppel does not apply in this case, and Plaintiffs’ claims for an additional \$15,212,118 must be addressed individually.

F. Whether Plaintiffs Are Entitled To Costs Previously Addressed In *System Fuels, Inc. v. United States*, 78 Fed. Cl. 769 (2007).

1. Whether Plaintiffs Are Entitled To \$66,003 For Engineering Analyses For The Auxiliary Building.

a. Plaintiffs' Argument.

Plaintiffs claim \$45,768 for a seismic analysis of the auxiliary building at Grand Gulf and \$20,235 for an analysis of the structural adequacy of the 208-foot elevation of the auxiliary building at Grand Gulf, for a total of \$66,003. 7/18/14 Jt. Stip. ¶¶ 6(h), 6(i). These analyses were “part of the larger civil analysis performed for use of the Holtec system that this [c]ourt previously considered in Round I.” Pls. 10/3/14 Br. at 39. In addition, “[t]he evidence presented at trial fully supports Plaintiffs’ position that, absent the need to analyze the specific parameters of the Holtec casks, Plaintiffs would not have needed to conduct” these seismic and structural analyses. Pls. 10/3/14 Br. at 39; *see also* Pls. 11/13/14 Reply at 21 (“The seismic analysis was necessitated by the Certificate of Compliance for storage for the Holtec HI-STORM system and Plaintiffs’ Part 50 facility license” and was “specifically based upon the parameters of the Holtec storage system.”) (citing 7/21/14 TR at 104–05 (Warren); 7/23/14 TR at 688–89 (Supko)); Pls. 11/13/14 Reply at 22 (stating that the structural analysis was “unique to the Holtec [system]”). Instead, Plaintiffs would have conducted analyses specific to the DOE casks, not the Holtec casks. Pls. 10/3/14 Br. at 39–40. Moreover, when DOE performs, Plaintiffs will have to conduct analyses specific to the DOE casks. Pls. 10/3/14 Br. at 40 (citing 7/21/14 TR at 146 (Warren); PX 489, at § 2.3).

b. The Government's Argument.

The Government concedes that \$66,003 was incurred and supported by adequate contemporaneous documentation, but contends that these costs would have been incurred even if DOE performed. 7/18/14 Jt. Stip. ¶¶ 6(h), 6(i); *see also* Gov’t 10/3/14 Br. at 51 (citing DX1128, at 18–21 (Brewer Written Direct)); Gov’t 11/13/14 Reply at 26 (same). Plaintiffs’ expert, Ms. Supko, mistakenly assumes that additional analyses would not have been needed for DOE casks, because DOE casks are within the dimensions of the updated final safety analysis report (“UFSAR”). Gov’t 10/3/14 Br. at 51–52 (citing PX2137, at 61–62 (Supko Written Direct); 7/22/14 TR at 668–69 (Supko); DX1128, at 19–20 (Brewer Written Direct)); *see also* Gov’t 11/13/14 Reply at 26 (same). “If simply falling within the dimensions specified by the USFAR were enough to avoid the need for further analysis, then the analyses performed by [Plaintiffs] to use the Holtec cask would, in many instances, have been unnecessary.” Gov’t 10/3/14 Br. at 52 & n.22 (explaining that the analyses did not separate “stack-up” operations and included areas where only a 125-ton cask would need to be evaluated) (citing DX1128, at 20 (Brewer Written Direct)); *see also* Gov’t 11/13/14 Reply at 27 (same).

In contrast, the Government expert’s calculations showed that “the use of the casks identified by Ms. Supko as suitable for use by DOE would have required additional analysis as was done to support the Grand Gulf dry storage project,” because it showed loading that exceeded prior calculations. Gov’t 10/3/14 Br. at 52 (citing DX1128, at 19 (Brewer Written Direct)). Therefore, these costs would have been incurred if DOE performed and are thus not recoverable. Gov’t 10/3/14 Br. at 52–53 (citing *Energy Nw.*, 641 F.3d at 1307 (“If a cost would have been

incurred even in the non-breach world, it is not recoverable.”); *see also* Gov’t 11/13/14 Reply at 26 (same).

c. The Court’s Resolution.

The court previously awarded costs for analyses of the Holtec system, because “the Government did not proffer any evidence of what type of cask DOE [would] require,” making it impossible for the Government to establish that Plaintiffs’ costs were unreasonable. *System Fuels II*, 78 Fed. Cl. at 802 (awarding \$533,323).

In this case, the Certificate of Compliance for the Holtec HI-STORM system required Plaintiffs to analyze the auxiliary building. 7/21/14 TR at 104 (Warren). Nevertheless, Plaintiffs acknowledge that they would have had to conduct these same analyses for DOE casks. Pls. 10/3/14 Br. at 39 (“[I]f DOE had performed, Plaintiffs would have conducted a seismic response analysis specific to the DOE casks (and not Holtec casks).”), 40 (“If DOE had performed, Plaintiffs would have conducted a structural analysis specific to the loading requirements and weights of a DOE cask.”). In addition, evidence presented at trial confirmed that Plaintiffs would have needed to conduct such analyses for DOE casks. DX1128, at 18–20 (Brewer Written Direct).

Consequently, the court cannot award Plaintiffs \$66,003 for these engineering analyses, but only the additional costs of the analyses for the Holtec casks relative to the DOE casks. *See Energy Nw.*, 641 F.3d at 1306 (“[P]laintiff[s] must prove the extent to which [their] incurred costs differ from the costs [they] would have incurred in the non-breach world.”). But, Plaintiffs did not present evidence of the costs of these analyses for DOE casks, and thus did not meet their burden of proving the costs incurred to analyze the auxiliary building. *See System Fuels IV*, 666 F.3d at 1312 (“Plaintiffs bear the burden to establish the alleged mitigation costs were caused by the breach.”) (citing *Energy Nw.*, 641 F.3d at 1307).

For these reasons, the court has determined that Plaintiffs are not entitled to \$66,003 to analyze the auxiliary building.

2. Whether Plaintiffs Are Entitled To \$468,903 To Analyze And Reinforce The Haul Path Outside The Auxiliary Building.

a. Plaintiffs’ Argument.

Plaintiffs claim \$468,903 to reinforce of the low profile transporter haul path outside the auxiliary building at Grand Gulf. 7/18/14 Jt. Stip. ¶ 6(f). This portion of the haul path is used to transport safety equipment and it had to be analyzed and reinforced, before a Holtec cask is transported over it. DX1128, at 22 (Brewer Written Direct); 7/21/14 TR at 100 (Warren). Plaintiffs add that “the Low Profile Transporter is unique to the Holtec cask system and the modifications to the Low Profile Transporter haul path were designed specifically for the Holtec System.” Pls. 10/3/14 Br. at 37 (citing 7/21/14 TR at 101 (Warren); DX1128, at 22 (Brewer Written Direct)). “If DOE had performed, Plaintiffs would not have needed to purchase or use the Low Profile Transporter, and thus, reinforcement of the Low Profile Transporter haul path would not have been required.” Pls. 10/3/14 Br. at 37; Pls. 11/13/14 Reply at 22 (same). Instead, Plaintiffs would have “delivered its cask . . . on a vehicle capable of transport on public roads.” Pls. 11/13/14 Reply at 22 (citing PX2137, at 70 (Supko Written Direct); 7/21/14 TR at 213–14

(Ellis)). Therefore, in a non-breach world, “no modifications to the plant site would have been needed. . . . [and thus t]hese site improvement costs should be allowed.” Pls. 11/13/14 Reply at 22 (citing PX2137, at 72 (Supko Written Direct)).

b. The Government’s Response.

The Government concedes that \$468,903 was incurred and supported by adequate contemporaneous documentation, but contends that the costs to analyze and reinforce the auxiliary building would have been incurred, if DOE performed. 7/18/14 Jt. Stip. ¶ 6(f); *see also* Gov’t 10/3/14 Br. at 53–54. This analysis would have included not only the weight of the rail transportation cask, but also “the weight and axle loading of the vehicle used to transport such a cask.” Gov’t 10/3/14 Br. at 53 (citing DX1128, at 22–24 (Brewer Written Direct)); *see also* Gov’t 11/13/14 Reply at 28–29 (same).

Plaintiffs’ “arguments about why this work would not have been necessary with DOE performance are not based upon engineering analyses, but instead, conclusory statements by Ms. Supko.” Gov’t 11/13/14 Reply at 28 (citing Pls. 10/3/14 Br. at 13–14)). Ms. Supko “did not address the haul path issue in her testimony because . . . the [c]ourt addressed charges incurred in the prior claim period related to analyzing the haul path” in *System Fuels II*, 78 Fed. Cl. at 803. Gov’t 10/3/14 Br. at 53 (citing PX2137, at 75–76 (Supko Written Direct)). In fact, Ms. Supko agreed that “[Plaintiffs] would have performed an analysis of the haul path prior to loading DOE casks” and that “it would likely be [Plaintiffs’] responsibility to improve or modify the roads on their site if necessary.” Gov’t 53, 54 (citing 7/22/14 TR at 694–96 (Supko)); *see also* Gov’t 11/13/14 Reply at 28 (same). Mr. Warren was not asked to evaluate whether haul path modifications would be needed. Gov’t 10/3/14 Br. at 54 (citing 7/21/14 TR at 139–40 (Warren)). In sum, “[b]ecause [Plaintiffs] cannot show that [they] would not have performed these same analyses and the reinforcement to handle a DOE transportation cask, the costs for this work is unrecoverable against the Government.” Gov’t 10/3/14 Br. at 54 (citing *Energy Nw.*, 641 F.3d at 1307 (“If a cost would have been incurred even in the non-breach world, it is not recoverable.”)).

c. The Court’s Resolution.

The court previously awarded Plaintiffs costs to analyze and reinforce the haul path outside the auxiliary building, because the Government failed to show that these costs were unreasonable. *See System Fuels II*, 78 Fed. Cl. at 804–05 (awarding \$2,670,203).

In this case, Plaintiffs acknowledge that they “would have performed an analysis of the haul path prior to loading to DOE casks to ensure that the weight of th[e] transporter . . . could traverse the site roads at Grand Gulf.” 7/22/14 TR at 695 (Supko). Therefore, the analysis would have been conducted in the non-breach world. But, Plaintiffs also have demonstrated that they would have delivered DOE casks using a vehicle on public roads, instead of modifying the haul path. PX2137, at 71–72 (Supko Written Direct); *see also* 7/21/14 TR at 213–14 (Ellis). Although the Government contends that transport by vehicle may have required modifications to the roads at Plaintiffs’ expense, this was not clearly established at trial. 7/22/14 TR at 695–96 (Supko) (stating that there was “some uncertainty” as to whether additional road work would be necessary and whether Plaintiffs were responsible for such modifications). Nevertheless, Plaintiffs have

shown entitlement to the costs of the haul path modifications, which would not have been required if DOE performed, but not to the costs of the analysis.

The haul path modifications cost \$460,978. 3/6/15 Chron. at 2 (\$160,503 for Stone & Webster, \$179,586 for Entergy Materials, and \$120,889 for Rentals for the haul path modification); *see also* DX1129, at Att. 7-c (Peterson Written Direct); PX848 (Stone & Webster Contract) (describing Stone & Webster’s work as the “[c]onstruction of the haul path”) (emphasis added). The haul path analysis cost \$7,925. 3/6/15 Chron. at 2 (listing \$7,925 in Enercon charges); *see also* PX477 (Enercon Contract) (describing Enercon’s work as “Auxiliary Building Train Bay Analysis & Design”) (emphasis added).

For these reasons, the court has determined that Plaintiffs are entitled to \$460,978 for haul path modifications, but not to \$7,925 for the haul path analysis.

3. Whether Plaintiffs Are Entitled To \$95,635 To Relocate The Horizontal Fuel Transfer System Insert Storage Rack And To An Unidentified Amount To Design, Fabricate, And Install A Lift Yoke Stand.

a. Plaintiffs’ Argument.

Plaintiffs claim \$95,635 to remove the original HFTS insert storage rack and to install new HFTS insert storage racks. 7/18/14 Jt. Stip. ¶ 6(g). In addition, Plaintiffs claim an unidentified amount that is included with the other HFTS costs to design, fabricate, and install a lift yoke stand¹² at Grand Gulf. Pls. 10/3/14 Br. at 16–17; *see also* Gov’t 10/3/14 Br. at 38 n.15.

As to the HFTS insert storage rack, “[t]he evidence presented at trial demonstrated that it was necessary to remove the original HFTS storage rack and install two new HFTS insert storage racks in the cask loading pit because of the specific diameter of the Holtec HI-TRAC cask.” Pls. 10/3/14 Br. at 38 (citing 7/21/14 TR at 103 (Warren)); *see also* Pls. 11/13/14 Reply at 23 (same). Because a DOE cask would have a smaller diameter than the [Holtec] transfer cask, “removing and replacing the HFTS racks would not have been necessary.” Pls. 10/3/14 Br. at 38; *see also* Pls. 11/13/14 Reply at 23 (same) (citing 7/22/14 TR at 713 (Supko)). Although the Government’s witness, Mr. Brewer, stated that such modifications would not have been necessary with DOE performance, he “conceded that the HFTS work was reasonable. . . . [but it] would not have been ‘absolutely necessary’ to do this work with DOE performance.” Pls. 10/3/14 Br. at 38 (citing 7/21/14 TR at 964–67 (Brewer)); *see also* Pls. 11/13/14 Reply at 23 (same). Because Plaintiffs used a Holtec system, they “needed to install new HFTS insert storage racks in the cask loading pit.” Pls. 10/3/14 Br. at 38 (citing 7/21/14 TR at 964 (Brewer)).

¹² A cask lift yoke stand enables a cask to be lifted and moved by crane by allowing the hook on the SNF cask crane to connect with cast lifting trunnions built into the SNF cask. DX1128, at 15 (Brewer Written Direct). A cask lift yoke stand orients the cask lift yoke when lifting and holds that lift yoke when not in use. DX1128, at 15 (Brewer Written Direct). Lift yoke stands are designed specifically for the lift yoke and the nuclear power plant. DX1128, 15–16 (Brewer Written Direct).

As to the lift yoke stand, Plaintiffs add that “[t]he evidence presented at trial established that the lift yoke stand was specifically designed for the dimensions and centers of gravity of the Holtec lift yoke, and that the lift yoke stand will not necessarily work with another cask system.” Pls. 10/3/14 Br. at 40 (citing 7/21/14 TR at 108 (Warren); 7/23/14 TR at 951 (Brewer)); *see also* Pls. 11/13/14 Reply at 18 (same). Because DOE would have delivered and removed the lift yoke, if it performed, Plaintiffs would not have purchased or stored a DOE cask lift yoke at Grand Gulf. Pls. 10/3/14 Br. at 41 (citing PX2137, at 69 (Supko Written Direct)); *see also* Pls. 11/13/14 Reply at 18 (same). But, “even if a lift yoke stand is required for the DOE system, a new stand will likely be needed for the DOE lift yoke, as the stands are custom designed for the lift yokes.” Pls. 11/13/14 Reply at 18 (citing 7/23/14 TR at 951 (Brewer) (testifying that he did not know whether the lift yoke stand used with Plaintiffs’ Holtec system will work with a DOE lift yoke)).

b. The Government’s Response.

The Government concedes that \$95,635 to remove the original HFTS insert storage rack and to install new HFTS insert storage racks was incurred and supported by adequate contemporaneous documentation, but contends that this cost would have been incurred, if DOE performed. 7/18/14 Jt. Stip. ¶ 6(g). In addition, the Government challenges Plaintiffs’ lift yoke stand costs, because they would have been incurred, if DOE performed. Gov’t 10/3/14 Br. at 38–40.

As to the HFTS insert storage rack, Plaintiffs “determined that loading the Holtec transfer cask with the originally configured storage rack was not prudent . . . even though, as a technical matter, both the Holtec transfer cask and the rack would fit in the cask storage pool at the same time.” Gov’t 10/3/14 Br. at 55 (citing DX1128, at 26–27 (Brewer Written Direct); 7/21/14 TR at 197–98 (Ellis)). This is so because utilizing “two separate storage racks was the safest option.” Gov’t 10/3/14 Br. at 55 (citing DX1128, at 26–27 (Brewer Written Direct); 7/21/14 TR at 197–98 (Ellis)). But, “this same incentive to create additional safety margin for loading a DOE cask would have existed in a ‘but for’ world,” and “there is no rational explanation why [Plaintiffs] would not have performed the same HFTS modification and relocation to create a safety margin when handling a DOE cask.” Gov’t 10/3/14 Br. at 55 (citing DX1128, at 28 (Brewer Written Direct)); *see also* Gov’t 11/13/14 Reply at 30 (same). Moreover, Plaintiffs’ witnesses, Ms. Supko and Mr. Warren, did not demonstrate that these modifications would not have occurred in a “but for” world, making these costs unrecoverable. Gov’t 10/3/14 Br. at 55–56 (citing 7/21/14 TR at 124–25 (Warren)); *see also* Gov’t 11/13/14 Reply at 29–30 (stating that Ms. Supko’s statements are “not supported by any real analysis” and that the same safety incentives would have existed in the “but for” world); Gov’t 11/13/14 Reply at 30 (“Because [Plaintiffs] did not show that the costs for this HFTS relocation would not have been incurred with DOE performance, the costs are unrecoverable.”); *Energy Nw.*, 641 F.3d at 1307 (“If a cost would have been incurred even in a non-breach world, it is not recoverable.”).¹³

¹³ The Government characterizes Plaintiffs’ arguments regarding \$95,635 for HFTS relocation costs as “a prime example of contradictory positions taken by [Plaintiffs] between the two cases.” Gov’t 11/13/14 Reply at 29 (comparing *System Fuels II*, 78 Fed. Cl. at 803 (determining that Plaintiffs were entitled to HFTS costs, because the Government did not identify

As to the lift yoke stand, Plaintiffs “would have needed to install a lift yoke stand . . . to handle and temporarily store a DOE-supplied lift yoke.” Gov’t 10/3/14 Br. at 38 (citing DX1128, at 15–16 (Brewer Written Direct)). Ms. Supko “confuse[d] the issue,” because “[i]t is not a matter of needing to store the lift yoke at the plant between loading campaigns, but rather, at various times during the loading of a cask[,] a crane will be needed for other purposes and the lift yoke will need[] to be removed and restrained during those intervals.” Gov’t 10/3/14 Br. at 38–39 (citing 7/23/14 TR at 949 (Brewer)); *see also* Gov’t 11/13/14 Reply at 21 (same). In addition, Mr. Warren and Mr. Ellis did not evaluate whether the stand was required for a DOE-supplied lift yoke, nor were they aware of alternative storage methods for the lift yoke. Gov’t 10/3/14 Br. at 39 (citing 7/21/14 TR at 126 (Warren); 7/21/14 TR at 201 (Ellis)); *see also* Gov’t 11/13/14 Reply at 21–22 (same). Although Plaintiffs argue that a different lift yoke stand likely would be necessary in the future, “[s]peculation about future costs does not change the fact that [Plaintiffs] would have incurred costs to procure a lift yoke stand had DOE timely performed.” Gov’t 10/3/14 Br. at 39 (citing *Ind. Mich. Power Co.*, 422 F.3d at 1377 (“If the breach of an entire contract is only partial, the plaintiff can recover only such damages as he or she has sustained, leaving prospective damages to a later suit in the event of further breaches.”) (internal quotation and citation omitted)). As such, Plaintiffs can recover costs in the future, only if they establish that they were required to modify the existing stand or purchase a new one. Gov’t 10/3/14 Br. at 40.¹⁴

c. The Court’s Resolution.

The court previously awarded costs for the relocation of the HFTS insert storage rack, because the Government could not identify the dimensions of the casks that DOE would have provided. *See System Fuels II*, 78 Fed. Cl. at 803 (awarding \$353,396). In this case, however, both parties proffered evidence that the Holtec casks are significantly larger than DOE casks:

the dimensions of a DOE cask) and Pls. 10/3/14 Br. at 14 (stating that the DOE cask would have a smaller diameter)).

¹⁴ The Government adds that Plaintiffs “mistakenly include[] this new activity . . . with work addressed by the [c]ourt in the first round case.” Gov’t 11/13/14 Reply at 21.

General Feature of DOE Transport Cask	Grand Gulf Cask Handling Licensing Basis	IF-300	NLI 20/24	B&W BR-100	NAC CTC
Maximum weight (tons)	125	70	96.5	100	100
Maximum length	21'	17.5'	17'	17' 4"	16' 10"
Maximum diameter	10'	5' 3"	7' 4"	6' 10"	7' 4"
BWR Assembly Capacity		17	24	52	52

PX2137, at 62 (Supko Written Direct); *see also* DX1024, at SERI-0000132223 (showing the DOE cask diameter as eight feet, eight inches); DX1128, at 12 (Brewer Written Direct) (referring to the “approximately [eight]-foot diameter Holtec transfer cask”); 7/23/14 TR at 966 (Brewer).

As such, Plaintiffs needed to reconfigure the HFTS insert storage rack for safety reasons. 7/23/14 TR at 964 (Brewer); *see also* 7/21/14 TR at 197–98 (Ellis). Although the Government contends that these safety reasons would have existed even with DOE casks, the evidence established that the larger Holtec casks presented a greater safety risk. 7/21/14 TR at 197–98 (Ellis); *see also* 7/23/14 TR at 964–67 (Brewer); 7/22/14 TR at 713–14 (Supko).

As to the lift yoke stand, Plaintiffs contend that the costs incurred to fabricate the lift yoke stand were specific to the Holtec casks, but this is not the relevant inquiry. Instead, the court must determine whether Plaintiffs would have fabricated the stand, if DOE performed, and, if so, compare the relative costs of the fabrication for Holtec versus DOE casks. *See Energy Nw.*, 641 F.3d at 1306 (“[P]laintiff[s] must prove the extent to which [their] incurred costs differ from the costs [they] would have incurred in the non-breach world.”). In this case, the parties proffered conflicting evidence concerning whether Plaintiffs would have constructed the stand, if DOE performed. PX2137, at 69 (Supko Written Direct); DX1128, at 15–16 (Brewer Written Direct); 7/21/14 TR at 107–108, 126 (Warren); 7/23/14 TR at 951 (Brewer). Because this evidence was in equipoise, Plaintiffs did not meet their burden of establishing these costs. PX2137, at 69 (Supko Written Direct); DX1128, at 15–16 (Brewer Written Direct); *see also System Fuels IV*, 666 F.3d at 1312 (“Plaintiffs bear the burden to establish the alleged mitigation costs were caused by the breach.”) (citing *Energy Nw.*, 641 F.3d at 1307). Plaintiffs also did not present evidence of the costs of the lift yoke stand construction, if DOE performed.

In addition, Plaintiffs did not separately identify the costs incurred to design, fabricate, and install the lift yoke stand, but instead, aggregated the lift yoke stand costs with the HFTS insert storage rack costs. Because Plaintiffs did not meet their burden of proving the lift yoke stand costs or separately identify the amount of these costs, Plaintiffs cannot recover \$95,635 to relocate the HFTS insert storage rack, which included unspecified lift yoke stand costs. *See Energy Nw.*, 641 F.3d at 1306 (“[P]laintiff[s] must prove the extent to which [their] incurred costs differ from the costs [they] would have incurred in the non-breach world.”).

For these reasons, the court has determined that Plaintiffs are not entitled to \$95,635 to relocate the HFTS insert storage rack, nor to the unidentified amount to design, fabricate, and install a lift yoke stand.

4. Whether Plaintiffs Are Entitled To \$490,559 For Electrical System Modifications To The Auxiliary Building.

a. Plaintiffs' Argument.

Plaintiffs claim \$161,383 in Enercon charges, materials charges, rentals, and subcontracts, and \$192,513 in associated Stone & Webster charges, totaling \$353,896, for electrical system modifications for the auxiliary building at Grand Gulf. 7/18/14 Jt. Stip. ¶ 6(e). Plaintiffs state they “provided adequate documentation to support that Plaintiffs incurred \$192,513 in Stone & Webster’s work on the electrical systems modifications.” Pls. 10/3/14 Br. at 36 (citing PX1627–33, 1636–38, 1641, 1643–46, 1652–55, 1657–65, 1668–72 (Summary And Accounting Report on Stone & Webster Charges)). The evidence at trial demonstrated that the additional electrical systems were customized to the Holtec equipment. Pls. 10/3/14 Br. at 36 (citing 7/21/14 TR at 98–99 (Warren)); *see also* Pls. 11/13/14 Reply at 23 (same). Plaintiffs would not have needed to add electrical systems if DOE provided casks with bolted closures, so “the electrical systems modifications would not have been necessary” if DOE performed. Pls. 10/3/14 Br. at 36 (citing PX2137, at 68–69 (Supko Written Direct); PX2135, at 8); *see also* Pls. 11/13/14 Reply at 23–24 (same).

b. The Government's Response.

The Government concedes that Plaintiffs incurred \$24,655 in Enercon charges, \$127,229 in materials charges, and \$9,499 in charges for rentals and subcontracts, totaling \$161,383, and that these costs are supported by adequate contemporaneous documentation. 7/18/14 Jt. Stip. ¶ 6(e). But, the \$161,383 for electrical system modifications, as well as associated Stone & Webster charges of \$329,176, would have been incurred, if DOE performed. 7/18/14 Jt. Stip. ¶ 6(e); *see also* DX1129, at Att. 7-b (Peterson Written Direct).

The Government argues that “[e]lectrical power was added throughout the auxiliary building for a variety of purposes,” many of which are “common to all SNF casks.” Gov’t 10/3/14 Br. at 56 (citing DX1128, at 28 (Brewer Written Direct); 7/21/14 TR at 98 (Warren); 7/21/14 TR at 192–94 (Ellis)); *see also* Gov’t 11/13/14 Reply at 31 (same). Even DOE-supplied bolted casks “require[] power for draining, drying, decontaminating, and bolting purposes,” and Plaintiffs “did not show that [they] would not have needed to add additional electrical power to load a DOE-supplied cask.” Gov’t 10/3/14 Br. at 56–57 (citing DX1128, at 28–29 (Brewer Written Direct)); *see also* Gov’t 11/13/14 Reply at 31 (same).

In addition, Plaintiffs’ witnesses, Mr. Warren and Mr. Ellis, did not “analyze whether electrical modifications similar to those performed in the actual world would have been needed to load SNF to DOE.” Gov’t 10/3/14 Br. at 57 (citing 7/21/14 TR at 120–22 (Warren), 195 (Ellis)). Mr. Warren did not testify that the modifications were required if DOE performed, but instead, “stated the truism that power for a welding system would not be needed if [Plaintiffs were] not welding casks.” Gov’t 11/13/14 Reply at 31 (citing 7/21/14 TR at 98–99 (Warren)). Moreover,

Mr. Warren also was not asked whether these modifications would have been required in a “but for” world and “did not believe anyone [working for Plaintiffs] knows whether similar modifications would have been made to load DOE.” Gov’t 11/13/14 Br. at 31 (citing 7/21/14 TR at 122 (Warren)).

Therefore, Plaintiffs are not entitled to recover any costs incurred for electrical modifications to the auxiliary building. Gov’t 10/3/14 Br. at 57 (citing *Energy Nw.*, 641 F.3d at 1307 (holding that SNF plaintiffs must show that the same costs would not have been incurred in a “but for” world)); *see also* Gov’t 11/13/14 Reply at 32 (same).

c. The Court’s Resolution.

The court previously awarded costs for the evaluation and implementation of electrical service at the auxiliary building, because the Government failed to show that the costs were unreasonable. *See System Fuels II*, 78 Fed. Cl. at 802–03 (awarding \$381,401).

In this case, additional electrical system modifications were required to perform work irrespective of whether Plaintiffs used Holtec or DOE casks. DX1128, at 28 (Brewer Written Direct); *see also* 7/21/14 TR at 192–94 (Ellis). Plaintiffs’ witnesses did not address whether the additional electrical system modifications were required to load DOE casks. 7/21/14 TR at 120 (Warren); *see also* 7/21/14 TR at 195 (Ellis). Although Plaintiffs claim that the additional electrical system modifications were required to use the Holtec cask system, this is not the relevant inquiry. Instead, the court must determine whether Plaintiffs would have required additional electrical system modifications if DOE performed, and if so, compare the relative costs between Holtec versus DOE casks. *See Energy Nw.*, 641 F.3d at 1306 (“[P]laintiff[s] must prove the extent to which [their] incurred costs differ from the costs [they] would have incurred in the non-breach world.”). But, Plaintiffs did not proffer any evidence of the costs of the additional electrical system modifications specific to DOE casks, and did not meet their burden of proving these costs would have been incurred, but for the breach. *See System Fuels IV*, 666 F.3d at 1312 (“Plaintiffs bear the burden to establish the alleged mitigation costs were caused by the breach.”) (citing *Energy Nw.*, 641 F.3d at 1307).¹⁵

In *Alabama Power*, the United States Court of Federal Claims determined that DOE’s breach required certain electrical modifications, but the plaintiff could not recover for them, because the plaintiff “did not submit enough evidence for the court to assign a reasonable value.” 2014 WL 7465683, at *20–*21. In this case, based on the evidence presented at trial, the court has determined that Plaintiffs did not demonstrate that they would have incurred these electrical costs in the non-breach world. *See Energy Nw.*, 641 F.3d at 1306 (“[P]laintiff[s] must prove the extent to which [their] incurred costs differ from the costs [they] would have incurred in the non-breach world.”).

¹⁵ Plaintiffs contend that the associated Stone & Webster charges total \$192,513, but the Government contends that they total \$329,176. 7/18/14 Jt. Stip. ¶ 6(e). At trial, the evidence supported Stone & Webster charges of \$329,176. DX1129, at Att. 7-b-1 n.2. But, as discussed herein, Plaintiffs failed to establish these costs would have been incurred in the non-breach world.

For these reasons, the court has determined that Plaintiffs are not entitled to \$161,383 for Enercon charges, materials charges, rentals, and subcontracts, nor to \$329,176 for associated Stone & Webster charges.

5. Whether Plaintiffs Are Entitled To \$4,706,387 To Prepare And Package Spent Nuclear Fuel Into Dry Storage Casks.

a. Plaintiffs' Argument.

Plaintiffs claim \$4,706,387¹⁶ to prepare and package SNF to dry storage casks at Grand Gulf. DX1129, at 26 & n.76 (Peterson Written Direct); *see also* DX1129, at Att. 11 (Peterson Written Direct).

Part 71 governs the “Packaging and Transportation of Radioactive Material.” 10 C.F.R. Part 71. Although the Holtec canisters are licensed for transport under Part 71, they are not licensed for transportation of “high burnup fuel.” Pls. 10/3/14 Br. at 43–44 (citing 7/22/14 TR at 723 (Supko); 7/23/14 TR at 932–33 (Brewer)). Therefore, “that fuel, which [Plaintiffs] ha[ve] loaded or will load into Holtec casks, is not even transportable under the Holtec transportation cask’s Certificate of Compliance.” Pls. 10/3/14 Br. at 44 (citing 7/22/14 TR at 723–24 (Supko)). That will require Plaintiffs to prepare and package SNF, if and when DOE performs, unless the NRC regulations are changed. Pls. 10/3/14 Br. at 44. In addition, “there is no guarantee that the NRC will continue to renew the Certificates of Compliance through the time that DOE commences performance.” Pls. 10/3/14 Br. at 45 (citing 7/23/14 TR at 933 (Brewer)); *see also* Pls. 11/13/14 Reply at 25 (same). For these reasons, Plaintiffs may be required to prepare and repackage the canistered fuel in the future. Pls. 10/3/14 Br. at 45.

Although the Government’s expert indicates that DOE will accept the loaded dual-use canisters, “DOE’s position is that it will not accept canistered SNF, such as the SNF that is in dry storage at Grand Gulf, under the Standard Contract unless there is an amendment to the Standard Contract, the terms of which DOE has not defined.” Pls. 10/3/14 Br. at 43 (citing DX1128, at 40; 7/22/14 TR at 731, 738 (Zabransky); 7/23/14 TR at 933–36 (Brewer); PX2136, at 14); *see also* Pls. 11/13/14 Reply at 24 (same). Plaintiffs argue they established that the canistered SNF does not meet the requirements in Part 71, and the Government has admitted that the canistered SNF may not be transportable. Pls. 10/3/14 Br. at 43 (citing PX2136, at 14). Therefore, the Government’s proposed \$4,706,387 offsets “are, at best, highly speculative” and should be rejected. Pls. 10/3/14 Br. at 45.

In addition, Plaintiffs argue that the Government expert’s challenge to these costs is “unsupportable for several reasons.” Pls. 10/3/14 Br. at 41. First, the United States Court of Federal Claims and United States Court of Appeals for the Federal Circuit have “rejected the principle that cask loading costs may be treated as an offset in SNF damages cases, finding that such costs are speculative, and ‘deferred costs rather than avoided costs.’” Pls. 10/3/14 Br. at 41

¹⁶ This \$4,706,387 amount does not include associated payroll loader costs recorded to Resource Codes 19 and 60, in the amount of \$51,260. DX 1129, at Att. 11 (Peterson Written Direct). If these payroll loader costs were included, the total amount for cask loading would be \$4,757,647. DX1129, at Att. 11 (Peterson Written Direct).

(quoting *System Fuels II*, 78 Fed. Cl. at 797); *see also* Pls. 10/3/14 Br. at 41–42 (same) (citing *SMUD VIII*, 566 F. App'x 985, 997 (Fed. Cir. 2014) (holding that there can be no cask loading offsets in partial breach cases); *Carolina Power & Light Co.*, 573 F.3d at 1277 (considering and rejecting the Government's claim for cask loading offsets); *Sacramento Mun. Util. Dist. v. United States*, 70 Fed. Cl. 332, 372 (2006) ("*SMUD III*"), *affirmed in part, rev'd in part*, 283 F. App'x 766 (Fed. Cir. 2008) (holding that, because "DOE and [the plaintiff] both contemplate that DOE will still perform under the Standard Contract at some future date, any benefit to [the plaintiff], because of delayed loading costs, would be entirely speculative"); *Ind. Mich. Power Co.*, 422 F.3d at 1373 ("[R]ecovery for speculative damages is precluded."); *see also* Pls. 11/13/14 Reply at 24 (same).

Second, "the Government's experts fail to follow their own stated methodology of properly identifying and calculating but-for costs and netting them against actual costs," but "simply propose to disallow the actual costs for loading Holtec containers on the completely unsupported premise that these costs are equivalent to the costs for loading an unidentified DOE container." Pls. 10/3/14 Br. at 42 (citing *S. Nuclear Operating Co. v. United States*, 637 F.3d 1297, 1304 (Fed. Cir. 2011) ("Plaintiffs cannot be expected to brainstorm every possible cost they would have saved in the non-breach world. Hence a defendant must move forward by pointing out the costs it believes the plaintiff avoided because of its breach.")). Loading and storing the welded Holtec casks is more expensive than the bolted DOE casks. 7/23/14 TR at 905–18 (Brewer); *see also* Pls. 10/3/14 Br. at 42 (citing PX2135, at 8); Pls. 11/13/14 Reply at 25 (explaining the increased costs of welded versus bolted casks).

b. The Government's Response.¹⁷

The Government responds that \$4,706,387 would have been incurred by Plaintiffs, even if DOE performed. DX1129, at Att. 11 (Peterson Written Direct). At trial, the "evidence showed that [Plaintiffs] procured a dual-purpose cask system that included transportable canisters so that the canisters containing the SNF could be delivered directly to DOE without any repackaging or reloading of individual spent fuel assemblies." Gov't 10/3/14 Br. at 57 (citing DX1128, at 32–38 (Brewer Written Direct); DX1006, at KRG-GGII004361 (2000 investment proposal); DX1077, at EGS-0000046279 (2009 investment proposal)); *see also* Gov't 11/13/14 Reply at 32 (same). Therefore, these costs are not recoverable. Gov't 10/3/14 Br. at 59 (citing *Energy Nw.*, 641 F.3d at 1306) (stating that costs incurred must be compared to the non-breach world); *see also* Gov't

¹⁷ On January 23, 2015, the Government filed a Notice, arguing that *Alabama Power* precludes Plaintiffs from recovering the costs to prepare and package SNF. Gov't 1/23/15 Notice at 1; *see also Ala. Power Co.*, 2014 WL 7465683, at *12. Plaintiffs respond that "the factual basis for the [c]ourt's determination differs from the facts in the instant case," because Plaintiffs "demonstrated that there would be a cost difference in loading the DOE-supplied transportation cask as compared to the Holtec storage cask." Pls. 2/5/15 Resp. at 1, 2. In addition, "[i]t would be unfair and improper" to deny Plaintiffs damages, as Plaintiffs later will be required to repackage the fuel for transport. Pls. 2/5/15 Resp. at 2. The Government replies that Plaintiffs' response regarding the factual dissimilarities is "demonstrably wrong" and that Plaintiffs "cannot simply argue that they would have incurred *zero* loading costs with DOE performance." Gov't 2/11/15 Reply at 3 (emphasis in original).

11/13/14 Reply at 33 (same) (citing *Yankee Atomic*, 536 F.3d at 1273 (“Without record evidence about the [plaintiffs’] condition with full Government performance, the Court of Federal Claims could not accurately assess the [plaintiffs’] damages.”)).

The Government adds that DOE has offered to discuss a proposed amendment to Part 71 and has acted in good faith to find a solution. Gov’t 10/3/14 Br. at 58 (citing 7/24/14 TR at 1047–49 (Zabransky)); *see also* 7/24/14 TR at 1044–45 (Zabransky) (“It makes no sense to open up the canisters and reload the SNF into another cask if you do not need to do so, because of the risk involved in such an activity.”). Finally, the Government also argues that Plaintiffs mischaracterize the Government’s challenge as seeking an offset, when it actually challenges whether the costs would have been occurred in the non-breach world. Gov’t 10/3/14 Br. at 59; *see also* Gov’t 11/13/14 Reply at 33.

c. The Court’s Resolution.

The court previously addressed the costs to prepare and package SNF in dry storage casks. *See System Fuels II*, 78 Fed. Cl. at 797 (“[C]ask loading costs are more accurately characterized as deferred costs rather than avoided costs. Therefore, if and when DOE performs, these costs will be incurred, and may be offset later with ‘reasonable certainty.’”).

In this case, Plaintiffs have demonstrated that preparing and packaging SNF in the welded Holtec casks is more expensive than the bolted DOE casks. 7/23/14 TR at 905–18 (Brewer); *see also* PX2135, at 8. But, Plaintiffs failed to establish the projected costs of preparing and packaging SNF for dry storage in DOE casks. As such, they did not meet their burden of proof. *See System Fuels IV*, 666 F.3d at 1312 (“Plaintiffs bear the burden to establish the alleged mitigation costs were caused by the breach.”) (citing *Energy Nw.*, 641 F.3d at 1307). Moreover, Plaintiffs acknowledged that it would have incurred these costs, if DOE performed. Pls. 2/5/15 Resp. at 2 (stating that Plaintiffs would have incurred costs while loading DOE casks, but at a “lesser expense”). In addition, the court may not consider the possible future costs Plaintiffs may incur to repackage the SNF in DOE casks, if and when DOE performs. *See Ind. Mich. Power Co.*, 422 F.3d at 1377 (“If the breach of an entire contract is only partial, the plaintiff can recover only such damages as he or she has sustained, leaving prospective damages to a later suit in the event of further breaches.”) (internal quotation, citation, and emphasis omitted).

For these reasons, the court has determined that Plaintiffs are not entitled to \$4,706,387 to prepare and package SNF for dry storage.

6. Whether Plaintiffs Are Entitled To \$344,863 For Payroll Loaders.

a. Plaintiffs’ Argument.

The parties’ July 18, 2014 Joint Stipulation states: “The parties stipulate that if a claimed damages item is recoverable then the materials loader and capital suspense loader, if any, applicable to that item is recoverable as well. Likewise, the parties stipulate that if a claimed damages item is unrecoverable then the applicable materials loader and capital suspense loader, if any, is also unrecoverable.” 7/18/14 Jt. Stip. ¶ 5. Therefore, Plaintiffs argue that “[t]he evidence presented at trial demonstrated that there is a sufficient nexus between the \$344,863 in payroll loaders that the Government now challenges and the internal labor costs incurred to mitigate the

Government's breach." Pls. 10/3/14 Br. at 49; *see also* Pls. 11/13/14 Reply at 26—27 (same) (citing 7/23/14 TR at 770 (Barras)).

At trial, Ms. Barras, a licensed Certified Public Accountant, testified that Plaintiffs' payroll loaders conceptually are "the same as the materials and capital suspense loaders that the [United States Court of Appeals for the] Federal Circuit has determined are recoverable as a matter of law." Pls. 10/3/14 Br. at 49 (citing *System Fuels IV*, 666 F.3d at 1312 (holding that Plaintiffs may recover "capital suspense loader" overhead costs incurred for mitigation-related work consistent with Generally Accepted Account Principles ("GAAP"))); *see also* Pls. 11/13/14 Reply at 26 ("[T]he payroll loaders costs captured by Resource Code 19 may reflect prior period costs, but that is fully consistent with GAAP and rules promulgated by the Federal Energy Regulatory Commission ('FERC') and the Financial Accounting Standards Board ('FASB')." (citing PX2138, at 22 (Metcalf Written Direct); 7/23/14 TR at 763 (Barras)).

In sum, Plaintiffs contend that the Government is not entitled "to be treated more favorably as regards payroll loaders than the other capital projects to which such loaders are allocated on a pro rata basis in accordance with GAAP," so that Plaintiffs' "claim for mitigation costs are proper components of economic damage that should be awarded to Plaintiffs in their entirety." Pls. 10/3/14 Br. at 49, 50 (citing PX 2138, at 22).

b. The Government's Response.

The Government responds the \$336,040 in costs allocated to Resource Code 19 and \$8,823 in costs allocated to Resource Code 60 may not be recovered by Plaintiffs. 7/18/14 Jt. Stip. ¶ 6(1)–(m); *see also* Gov't 10/3/14 Br. at 60.

As to Resource Code 19, the court previously found that "an unknown portion of those costs are attributable to retired employees" and "include[] costs that were incurred prior to any dry storage activities at Grand Gulf, including costs associated with personnel who retired from Grand Gulf prior to dry storage activities." Gov't 10/3/14 Br. at 60 (citing *System Fuels II*, 78 Fed. Cl. at 799 (stating that "Plaintiffs did not present any evidence as to what portion of the \$71,959 relates to the costs associated with retired employees" and reducing the damage award in that amount)); Gov't 10/3/14 Br. at 61 (citing DX1129, at 14–16 (Peterson Written Direct); 7/23/14 TR at 800–02 (Barras)); *see also* Gov't 11/13/14 Reply at 36, 38 (same). Likewise, in this case, the cost of retired employees "cannot be segregated from the costs recorded to active employees" and can "fluctuate based upon factors unrelated to DOE's performance." Gov't 10/3/14 Br. at 61 (citing DX1129, at 15 (Peterson Written Direct); 7/23/14 TR at 800–02 (Barras)); *see also* Gov't 11/13/14 Reply at 36–38 (citing *Energy Nw.*, 641 F.3d at 1312–13). Moreover, "[b]ecause these transition obligation costs will no longer be incurred in the future, the types of costs allocated in the future will not be the same as they are now." Gov't 11/13/14 Reply at 37 (rebutting 7/23/14 TR at 765, 821–822 (Barras) (testifying that the Resource Code 19 costs may be the same as those allocated in twenty years)). Therefore, the court should find the costs associated with Resource Code 19 unrecoverable. Gov't 10/3/14 Br. at 61.

As to Resource Code 60, this includes stock option costs that are only awarded to highly compensated employees. Gov't 10/3/14 Br. at 61 (citing DX1129, at 15–16 (Peterson Written Direct); 7/23/14 TR at 761, 809–11 (Barras)); *see also* Gov't 11/13/14 Reply at 38 (same). When

the stock options are issued, “[t]he costs associated with the previously issued and potentially unexercised stock options are included within the loader allocation.” Gov’t 10/3/14 Br. at 62 (citing 7/23/14 TR at 809 (Barras)). Consequently, Plaintiffs “did not show that it would not have incurred these same stock option costs with DOE performance, [and] it should not be permitted to recover Resource Code 60 charges as damages.” Gov’t 10/3/14 Br. at 62.

c. The Court’s Resolution.

The court previously awarded damages for loader costs. *See System Fuels II*, 78 Fed. Cl. at 798–800 (awarding \$362,000 for materials loaders, but deducting \$71,959 for payroll loaders and \$408,000 for capital suspense loaders).

In this case, the parties stipulated that loader costs are recoverable, if an individual claimed item is recoverable. 7/18/14 Jt. Stip. ¶ 5. The United States Court of Appeals for the Federal Circuit has held that SNF plaintiffs may recover payroll loader costs. *See System Fuels IV*, 666 F.3d at 1312 (reversing the trial court’s findings that Plaintiffs did not establish their “capital suspense loader” overhead costs for mitigation-related work with reasonable particularity, even though they were consistent with GAAP, and that the award must be reduced by the amount associated with retired employees)). Again, the burden rests with Plaintiffs to prove their damages. *Id.* at 1312 (“Plaintiffs bear the burden to establish the alleged mitigation costs were caused by the breach.”) (citing *Energy Nw.*, 641 F.3d at 1307). In this case, Plaintiffs have established that their claimed payroll loaders comply with GAAP. PX2138 (Metcalf Written Direct), at 22; *see also* 7/23/14 TR at 763 (Barras). Plaintiffs did not segregate costs associated with retired employees and stock options, but our appellate court has held that SNF plaintiffs need not show their damages with “absolute exactness or mathematical precision.” *Ind. Mich. Power Co.*, 422 F.3d at 1373 (internal quotation omitted). Therefore, Plaintiffs are entitled to payroll loaders associated with Resource Codes 19 and 60.

The parties, however, “stipulate[d] that if a claimed damages item is unrecoverable then the applicable materials loader and capital suspense loader, if any, is also unrecoverable.” 7/18/14 Jt. Stip. ¶ 5. Because the court previously determined that Plaintiffs are not entitled to \$4,706,387 to prepare and package SNF for dry storage, the court thus must deduct the associated \$51,260 for Resource Codes 19 and 60 payroll loaders associated with preparing and packaging SNF for dry storage. DX1129, at Att. 3 & 11 (Peterson Written Direct).

For these reasons, the court has determined that Plaintiffs are entitled to \$293,603 for payroll loaders associated with Resource Codes 19 and 60.¹⁸

¹⁸ In the court’s judgment, SNF plaintiffs should not be awarded damages for stock option bonuses for highly-compensated employees, but precedent compels the award of payroll loaders under Resource Code 60. *See System Fuels IV*, 666 F.3d at 1312.

G. Whether Plaintiffs Are Entitled To Costs Not Previously Addressed In *System Fuels, Inc. v. United States*, 78 Fed. Cl. 769 (2007).

1. Whether Plaintiffs Are Entitled To \$4,218,911 For Increased Security Guard Costs.

a. Plaintiffs' Argument.

Plaintiffs' claim \$3,707,710 to hire security officers and \$511,201 to contract with Wackenhut, totaling \$4,218,911. 3/6/15 Chron. at 1; *see also* 7/18/14 Jt. Stip. ¶ 3; Pls. 10/3/14 Br. at 46. Plaintiffs separately address the evidentiary support for the hiring of additional security officers and the Wackenhut contract, respectively, and then discuss the reasonableness of the cost estimates.

i. The \$3,707,710 To Hire Additional Security Officers.

Plaintiffs were required to expand the protected area at Grand Gulf to include the ISFSI and to construct three BREs, which required additional security officers. Pls. 10/3/14 Br. at 47.

Plaintiffs contend that they presented sufficient evidence to show the need to hire additional security officers to comply with NRC regulations mandating that the ISFSI be within the protected area and guarded. Pls. 10/3/14 Br. at 47; *see also* Pls. 11/13/14 Reply at 10 (citing 7/21/14 TR at 41 (Carney)). In addition, the NRC requires¹⁹ that each BRE be continuously manned, necessitating five guard shifts for each BRE. Pls. 10/3/14 Br. at 47; *see also* Pls. 11/13/14 Reply at 10–11 (citing 7/21/14 TR at 256–57, 264 (Dorsey); DX1058; DX1061; DX1062; DX1098 (explaining the location of security posts for the three new BREs)); *see also* PDX34 (Grand Gulf Security Shift Chart). The Government's expert, Mr. Peterson, was "only vaguely familiar with the NRC regulations concerning plant security" and thus "lack[ed] any qualifications to review Plaintiffs' security costs and to opine as to their validity." Pls. 11/13/14 Reply at 12 (citing 7/24/14 TR at 1070 (Peterson); FED. R. EVID. 702 (requiring an expert to be qualified by "knowledge, skill, experience, training or education" to offer opinion testimony)). And, the Government's argument that the overall number of security posts decreased is irrelevant, because Plaintiffs established the costs associated with the fifteen additional security officers hired "were solely attributable to Plaintiffs' mitigation of DOE's breach." Pls. 11/13/14 Reply at 11.

Therefore, Plaintiffs argue they have established entitlement to \$3,707,710 for additional security officers. Pls. 11/13/14 Reply at 12.

ii. The \$511,201 To Hire The Wackenhut Corporation.

Plaintiffs also argue that the evidence satisfies entitlement to \$511,201 for the Wackenhut security contract. Pls. 10/3/14 Br. at 46–47; *see also* Pls. 11/13/14 Reply at 8–9. First, the NRC

¹⁹ *See* 10 C.F.R. § 73.55 (outlining the requirements for physical plant protection at SNF plants and requiring continuous surveillance of the site); *see also* 10 C.F.R. § 73.55(i)(5)(ii) ("The licensee shall provide continuous surveillance, observation, and monitoring of the owner controlled area as described in the security plan.").

regulations require that dry fuel storage at the ISFSI must be provided on an ongoing basis, and Plaintiffs were permitted to hire Wackenhut for this purpose. Pls. 11/13/14 Reply at 9. The Wackenhut invoices were subject to two levels of review. Pls. 11/13/14 Reply at 9 (citing 7/22/14 TR at 613–14, 618–19 (Brown)). In support, Plaintiffs cite the testimony of Mr. Gregory Brown, Plaintiffs’ Contract Manager for the Wackenhut security contract, and Ms. Alice “Dena” Byrnes, the Manager, Finance Business Partners. Pls. 10/3/14 Br. at 46–47 (citing 7/22/14 TR at 613–25 (Brown)); *see also* Pls. 11/13/14 Reply at 8–9 (citing 7/22/14 TR at 613–25 (Brown); 7/22/14 TR at 586–90 (Byrnes)).

For example, Ms. Byrnes “testified that it was [Plaintiffs’] general practice to allocate costs to specific project codes, and that [Plaintiffs] followed this same practice for security costs, including the Wackenhut invoices.” Pls. 11/13/14 Reply at 8 (citing 7/22/14 TR at 587 (Byrnes)). Ms. Byrnes also explained that these allocations were first done by a financial analyst and “that the handwritten allocations on the Wackenhut invoices were done by Ms. Johnnie Rockingham, a financial analyst in Ms. Byrnes’s department,” so the invoices were “properly authenticated.” Pls. 11/13/14 Reply at 8 (citing 7/22/14 TR at 586–87 (Byrnes)).

Mr. Brown added that he would review, approve, and sign Wackenhut invoices before submitting the invoices for follow-on approval and payment. Pls. 10/3/14 Br. at 46 (citing 7/22/14 TR at 613–14, 618–19 (Brown)); *see also* Pls. 11/13/14 Reply at 8 (same). Mr. Brown also reviewed the cost allocations for the Wackenhut security invoices and verified their accuracy, including the allocation of compensatory measures to the dry fuel storage project. Pls. 10/3/14 Br. at 46–47 (citing 7/22/14 TR at 623–25 (Brown)); *see also* Pls. 11/13/14 Reply at 8–9 (same).

iii. The Reasonableness Of Plaintiffs’ Security Costs.

Plaintiffs also contend that they satisfied the requirement for showing the \$4,218,911 in increased security costs “with reasonable certainty, not mathematical exactitude,” as required by the United States Court of Appeals for the Federal Circuit. Pls. 10/3/14 Br. at 48 (citing *Ind. Mich. Power Co.*, 422 F.3d at 1373 (holding that damages “need not be ascertainable with absolute exactness or mathematical precision”) (internal quotation omitted)).

Mr. Dorsey, Plaintiffs’ employee, determined the hours worked by the additional security personnel by multiplying the number of security shifts required for the three BREs, fifteen, by the standard hours in a workweek, forty, and extrapolated that over the January 1, 2007 to July 31, 2009 time period. Pls. 10/3/14 Br. at 48 (citing 7/21/14 TR at 276 (Dorsey)). Mr. Metcalfe utilized Mr. Dorsey’s work product and an hourly rate within the range of estimated hourly rates paid to BRE security personnel. PX2138, at 28–29 (Metcalfe Written Direct); *see also* 7/21/14 TR at 276–78 (Dorsey). These calculations were incorporated into Mr. Metcalfe’s report. 10/3/14 Br. at 48. Plaintiffs contend this is a conservative estimate, because it “understates the number of manhours per year because Plaintiffs used only a forty-hour workweek as a basis even though officers work eighty-seven and a half hours per two-week pay period.” Pls. 10/3/14 Br. at 48 (citing 7/21/14 TR at 277–78, 295–96 (Dorsey)); *see also* Pls. 11/13/14 Reply at 12 (same). This estimate also underestimated overtime hours, “because, on a regular shift, the officers work seven and a half hours of overtime per pay period, and the estimate includes only three and a half hours of overtime per pay period.” Pls. 10/3/14 Br. at 48 (citing 7/21/14 TR at 277–78 (Dorsey)); *see also* Pls. 11/13/14 Reply at 12 (same). Finally, the hourly costs of \$21.23 “understates the average

hourly cost of the security personnel required to staff the three additional BREs.” Pls. 11/13/14 Reply at 13 (citing PX2139 (estimating an hourly rate of \$21.24); PX2124 (estimating an hourly rate of \$22.53); PX2143 (estimating an hourly rate of \$23.06)).

In contrast, the Government’s estimate “accounts only for the time that security officers are actually posted on the BREs and does not account for the training that every security officer must undergo or the briefings that every security officer is required to attend prior to his shift.” Pls. 11/13/14 Reply at 13 (citing 7/21/14 TR at 277–78 (Dorsey)).

b. The Government’s Response.

The Government responds that Plaintiffs’ increased security costs are “unsupported by adequate contemporaneous documentation to establish that the costs were incurred for the activities to which [Plaintiffs have] attributed them.” 7/18/14 Jt. Stip. ¶ 3; *see also* 7/18/14 Jt. Stip. Att. A. The Government also separately challenges the evidentiary support for the hiring of additional security officers and the Wackenhut contract, respectively, and then the reasonableness of the cost estimates.

i. The \$3,707,710 To Hire Additional Security Officers.

The Government argues that Mr. Metcalfe’s \$3,707,710 estimate for hiring additional security officers is based on information provided by Mr. Dorsey, but that “Mr. Dorsey did not work at the Grand Gulf plant and had no involvement in its security between February 2003 and February 2009.” Gov’t 10/3/14 Br. at 21 (citing 7/21/14 TR at 286 (Dorsey)); *see also* Gov’t 11/13/14 Reply at 9 (same). Instead, Mr. Dorsey’s assumptions about the hiring of fifteen additional officers to guard the three new BREs “was based upon after-the-fact talks with security staff at the plant and a review of the site security plan, which was not introduced into evidence.” Gov’t 10/3/14 Br. at 21 (citing 7/21 TR at 251 (Dorsey)); *see also* Gov’t 11/13/14 Reply at 9 (same). In fact, Mr. Dorsey originally believed ten guards had been hired, instead of the fifteen he later claimed. Gov’t 10/3/14 Br. at 21–22 (citing 7/21/14 TR at 293 (Dorsey)).

The assumptions made by Mr. Dorsey and Mr. Metcalfe also are “contradicted by the actual evidence regarding the size of Grand Gulf’s security staff,” that only increased from 130 in 2003 to 134 in 2011. Gov’t 10/3/14 Br. at 22 (citing 7/21/14 TR at 288–89 (Dorsey)). Mr. Dorsey admitted that “there may have be[en] increases to the security staff for reasons unrelated to dry storage.” Gov’t 10/3/14 Br. at 22 (citing 7/21/14 TR at 289–91 (Dorsey)). In addition, “[s]ecurity posting charts for dates after the dry storage facility was incorporated into the protected area demonstrate that over time the number of security posts stayed the same and then eventually decreased.” Gov’t 10/3/14 Br. at 23 (emphasis omitted) (citing 7/21/14 TR at 549–59 (Dorsey)); *see also* DX1058 (Dec. 31, 2006 security posting chart); DX1061 (June 30, 2007 security posting chart); DX1062 (Dec. 31, 2007 security posting chart)).

Therefore, the total number of security personnel, not the number required to protect the BREs, is relevant. Gov’t 11/13/14 Reply at 10–11 (“Whether the posts that were eliminated following the addition of dry storage were hardened (like a BRE) or not, does not change the fact that the total number of security posts required to be staffed decreased following dry storage, a fact that completely undermines [Plaintiffs’] claim[] for increased security staffing costs.”

(emphasis omitted)). In addition, Plaintiffs “stopped staffing one of those BREs for a significant period of time during the claim period.” Gov’t 11/13/14 Reply at 11 (citing DX1129, at 22 & Att. 8-e-1 (Peterson Written Direct); 7/21/14 TR at 255–56 (Dorsey)). Moreover, Plaintiffs proffered “no evidence to counter the fact that the number of security posts actually decreased” and acknowledged “that an analysis would need to be conducted before” determining whether removing the three BREs would allow Plaintiffs to further decrease security staff. Gov’t 10/3/14 Br. at 23 (citing 7/22/14 TR at 570–72 (Dorsey)); *see also* Gov’t 11/13/14 Reply at 10 (same).

In contrast, Mr. Peterson’s report shows that Plaintiffs “could have relied upon its actual security costs and accounting records, and used its security posting charts to determine the actual costs attributable to the three BREs added during dry storage.” Gov’t 10/3/14 Br. at 24 (citing DX1129, at 16–17 (Peterson Written Direct)); *see also* Gov’t 11/13/14 Reply at 11 (same). Therefore, the court should reject Plaintiffs’ claim for the \$3,707,710 to hire additional security officers. Gov’t 10/3/14 Br. at 24; *see also* Gov’t 11/13/14 Reply at 12.

ii. The \$511,201 To Hire The Wackenhut Corporation.

The Government also contends that Plaintiffs “provided insufficient information and documentation to explain the bases for” the \$511,201 to hire Wackenhut. Gov’t 10/3/14 Br. at 18. Plaintiffs “did not call as a witness anyone who actually allocated the half-million dollars at issue to the dry fuel storage project, much less have that individual explain the basis for the allocations.” Gov’t 10/3/14 Br. at 18. Plaintiffs’ witnesses, Ms. Byrnes and Mr. Brown, were not qualified to testify about these costs. Gov’t 10/3/14 Br. at 18–19. Ms. Byrnes stated that “she did not know whose handwriting was on the [Wackenhut] invoices” and “confirmed that she had no knowledge as to how Wackenhut invoice costs were broken-out to different work orders.” Gov’t 10/3/14 Br. at 18 (citing 7/22/14 TR at 590–91 (Byrnes)). These responsibilities belonged to the contract manager. Gov’t 10/3/14 Br. at 18 (citing 7/22/14 TR at 590 (Byrnes)). Likewise, Mr. Brown “acknowledged that he did not know who had handwritten the allocations,” and “[s]ome of the Wackenhut invoices with handwritten allocations post-dated Mr. Brown’s time as security superintendent.” Gov’t 10/3/14 Br. at 18, 19 (citing 7/22/14 TR at 627–28, 632–33 (Brown); PX1319; PX1458); *see also* Gov’t 11/13/14 Reply at 6 (same). Mr. Brown also testified that he “did not know the process by which Wackenhut invoices had been allocated . . . and that his testimony . . . was based upon conversations since his deposition with people who work at the plant.” Gov’t 10/3/14 Br. at 19 (citing 7/22/14 TR at 630 (Brown)); *see also* Gov’t 11/13/14 Reply at 6–7 (same). Of course, Wackenhut could have generated documents that itemized charges to different project codes, but no such records were produced. Gov’t 10/3/14 at 19 (citing 7/22/14 TR at 629, 635–36, 646–47 (Brown)); *see also* Gov’t 11/13/14 Reply at 7 (same). “At the very least[, Plaintiffs] could have called a Wackenhut employee to testify to the allocation process to justify [their] entitlement to the [\$511,201] in dispute.” Gov’t 11/13/14 Reply at 7.

In short, Plaintiffs failed to provide adequate support to justify the security costs allocated to Wackenhut. Gov’t 10/3/14 Br. at 19–20 (citing *Roseburg Lumber Co. v. Hadigan*, 978 F.2d 660, 667 (Fed. Cir. 1992) (“Absent tangible proof of damages, appellant may not recover for an alleged injury.”)); *see also* Gov’t 11/13/14 Reply at 8 (same).

iii. The Reasonableness Of Plaintiffs' Security Costs.

The Government adds that, even if Plaintiffs have shown an increase in security staffing at Grand Gulf due to dry storage, “Mr. Metcalfe’s estimate is overstated because both the number of hours and the hourly rate he assumes are overstated.” Gov’t 10/3/14 Br. at 24.

First, Mr. Metcalfe’s estimate assumed security staff worked 32,565 hours per year, including 1,365 hours overtime; but, continuously staffing the three BREs only required 26,280 hours per year. Gov’t 10/3/14 Br. at 24–25 & n.12 (citing 7/21/14 TR at 301–302 (Dorsey); PX186 (Metcalfe security estimate)). As a result, Plaintiffs overestimated by 6,000 hours from “the shift . . . structure requir[ing] five full-time shifts for each position,” and this “does not obviate the need to prove the number of hours employees spent on mitigation related projects.” Gov’t 10/3/14 Br. at 25 (citing 7/22/14 TR at 569–70 (Dorsey); *see also SMUD V*, 293 F. App’x at 773 (“[T]o recover internal labor costs incurred in mitigation of the Government’s breach, [Plaintiffs] must prove that [they] did in fact use [their] own employees in its mitigation efforts, and the number of hours those employees spent on mitigation related projects.”)). Mr. Metcalfe’s estimate also includes hours spent at locations other than the BREs. Gov’t 10/3/14 Br. at 25.

Second, Mr. Metcalfe overestimated the hourly rate by utilizing the SO-10SD14 billing rate—the second highest billing rate reserved for security officers with at least six years of experience. Gov’t 10/3/14 Br. at 25–26 (citing 7/21/14 TR at 303–06 (Dorsey); PX186; PX187, at A43; PX188, at A45; PX189, at A47). Moreover, Mr. Metcalfe did not know the difference between Plaintiffs’ billing rates, nor their origin. Gov’t 10/3/14 Br. at 26 (citing 7/21/14 TR at 307–08 (Dorsey)). In fact, “[a] comparison of an example of a Wackenhut invoice with a corresponding security posting chart prepared during the same time period showed that security officers at lower position levels were guarding the BREs added during the dry fuel storage project.” Gov’t 10/3/14 Br. at 26 (citing 7/22/14 TR at 560–65 (Dorsey); DX1058; DX1059, at 17, 19, 25–26, 45–46).

In contrast, the Government’s expert, Mr. Peterson, testified that “the estimate using the single selected rate was more than \$400,000 in excess of the same calculation using the average Wackenhut rate.” Gov’t 10/3/14 Br. at 27 (citing DX1129, at Att. 8-c (Peterson Written Direct)). Although Mr. Metcalfe attempted to rebut Mr. Peterson’s conclusion by introducing new exhibits (PX2139–42), he “never relied upon these documents . . . , never testified about them at trial, [nor] looked at the documents.” Gov’t 10/3/14 Br. at 27 (citing 7/24/14 TR at 1135 (Peterson)).

The Government also challenged the reliability of Plaintiffs’ calculation of the security costs incurred. Gov’t 10/3/14 Br. at 27–29. For example, Ms. Byrnes “could not recall if she had created or even contributed information in PX190, and could not stand behind the document as being accurate or reliable.” Gov’t 10/3/14 Br. at 28 (citing 7/22/14 TR at 593 (Byrnes)). In addition, “[c]ertain of the data included within PX190 is inconsistent with other contemporaneous accounting documentation and inconsistent with the way in which the accounting information is used.” Gov’t 10/3/14 Br. at 28 (arguing that the 6.47% overhead rate associated with Resource Code 005 was used, instead of the 2.41% rate associated with Resource Code 002).

c. The Court’s Resolution.

i. The \$3,707,710 To Hire Additional Security Officers.

The court must first determine whether it was appropriate for Mr. Metcalfe’s report to utilize Mr. Dorsey’s work product. Mr. Dorsey worked in the SNF plant security field for over thirty years, primarily at Grand Gulf. 7/21/14 TR at 216–17 (Dorsey).²⁰ Mr. Dorsey did not work at Grand Gulf from February 2003 to February 2009, but when he returned to Grand Gulf in February of 2009, he acquainted himself with new security requirements. 7/21/14 TR at 237–40 (Dorsey). Therefore, the court has determined Mr. Metcalfe could utilize Mr. Dorsey’s work product. *See* FED. R. EVID. 702 (stating that an expert may testify if: “(a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) *the testimony is based on sufficient facts or data*; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.”) (emphasis added); *see also* FED. R. EVID. 703 (“An expert may base an opinion *on facts or data in the case that the expert has been made aware of or personally observed*. If experts in the particularly field would reasonably rely on those kinds of facts or data in forming an opinion on the subject, they need not be admissible for the opinion to be admitted.”) (emphasis added).

At trial, Plaintiffs presented evidence that NRC regulations required Plaintiffs to construct three BREs and continuously staff these stations. 7/21/14 TR at 41 (Carney). As such, Plaintiffs were required to hire a total of fifteen security officers to staff the five guard shifts for each BRE. 7/21/14 TR at 256–57, 264 (Dorsey); PDX34 (Grand Gulf Security Shift Chart); *see also* 10 C.F.R. § 73.55 (outlining the requirements for physical plant protection at SNF plants and requiring continuous surveillance of the site).

Mr. Dorsey testified that fifteen additional security officers were required to staff the BREs. 7/21/14 TR at 256–57 (Dorsey); *see also* 10 C.F.R. § 73.55 (outlining the requirements for physical plant protection at SNF plants and requiring continuous surveillance of the site); 7/21/14 TR at 218–20, 227, 571–72 (Dorsey). The Government contends that the total number of security personnel, not the number required to protect the BREs, is the relevant inquiry. Gov’t 11/13/14 Reply at 10–11. But, whether Plaintiffs could have reduced security in other positions at Grand Gulf is not relevant. What is important is the number required to provide continuous surveillance at the BREs.

The Government adds that Plaintiffs “could have relied upon its actual security costs and accounting records, and used its security posting charts to determine the actual costs attributable to the three BREs added during dry storage.” Gov’t 10/3/14 Br. at 24 (citing DX1129, at 16–17 (Peterson Written Direct)); *see also* Gov’t 11/13/14 Reply at 11–12 (same). Although that did not

²⁰ From 1981 to 2003, Mr. Dorsey worked at Grand Gulf in positions ranging from armed security officer to senior security supervisor. 7/21/14 TR at 217 (Dorsey). From 2003 to 2009, Mr. Dorsey worked for Entergy Operations in a senior supervisor position at Waterford 3 Nuclear station. 7/21/14 TR at 217 (Dorsey). From February 2009 through the date of trial, Mr. Dorsey worked as manager of security at Grand Gulf. 7/21/14 TR at 217 (Dorsey).

happen in this case, the United States Court of Appeals for the Federal Circuit has endorsed the use of expert testimony and models to approximate costs. *See SMUD VIII*, 566 F. App'x at 994 (holding that the United States Court of Federal Claims incorrectly “relegated” the United States Court of Appeals for the Federal Circuit’s approval of exchange models “relying on evidence and expert testimony”); *see also Dairyland Power Coop. v. United States*, 645 F.3d 1363, 1369–71 (affirming use of an exchange model designed by a SNF plaintiff’s expert).

Therefore, it would appear that Plaintiff should be entitled to be awarded costs incurred to hire additional officers. But, the Government’s expert proffered convincing evidence that there were significant absences in certain BRE security posts, shifting the burden of proof back to Plaintiffs, who did not provide an adequate explanation for these gaps. DX1129, at 22 & Att. 8-e-1 (Peterson Written Direct). The court, however, has taken judicial notice of the fact that the NRC required the additional security guards, and Plaintiffs did not lose their nuclear license. *See* FED. R. EVID. 201(b) (“The court may judicially notice a fact that is not subject to reasonable dispute because it: . . . (b) can be accurately and readily determined from sources whose accuracy cannot reasonably be questioned.”). Therefore, the court finds that, although Mr. Peterson’s exhibit indicates that there may have been some BRE staffing lapses, Plaintiffs were required to and did hire additional security officers.

ii. The \$511,201 To Hire The Wackenhut Corporation.

The Government also challenges the \$511,201 to hire Wackenhut, because Plaintiffs’ witnesses were unqualified to testify about this issue. *See* FED. R. EVID. 602 (“A witness may testify to a matter only if evidence is introduced sufficient to support a find that the witness had personal knowledge of the matter.”). But, Mr. Brown and Ms. Byrnes had significant personal knowledge about the allocation of the Wackenhut security costs and the management of the Wackenhut security staff. 7/22/14 TR at 586–87 (Byrnes); 7/22/14 TR at 613–14 (Brown). In addition, the Wackenhut invoices are admissible under the business records exclusion to the hearsay rule. *See* FED. R. EVID. 803(6) (stating that business records are admissible if: “(A) the record was made at or near the time by—or from information transmitted by—someone with knowledge; (B) the record was kept in the course of a regularly conducted activity of a business . . . ; (C) making the record was a regular practice of that activity; (D) all of these conditions are shown by the testimony of the custodian or another qualified witness; and (E) the opponent does not show that the source of information or the method or circumstances of preparation indicate a lack of trustworthiness.”). The Wackenhut invoices were prepared in the regular course of business and reviewed by a financial analyst and by Mr. Brown. 7/22/14 TR at 586–87 (Byrnes); 7/22/14 TR at 613–614 (Brown).

iii. The Reasonableness Of Plaintiffs’ Security Costs.

When evaluating a SNF plaintiff’s damages calculations, the court must determine whether “the damages are shown with reasonable certainty.” *Ind. Mich. Power Co.*, 422 F.3d at 1373 (citing *Energy Capital Corp. v. United States*, 302 F.3d 1314, 1320 (Fed. Cir. 2002)). The damages “need not be ascertainable with absolute exactness or mathematical precision.” *Id.* (internal quotation omitted).

The Government contends that Plaintiffs' estimate overstates the hours worked and the hourly rate of the BRE security officers. Gov't 10/3/14 Br. at 24. Regarding the hours worked, Mr. Dorsey calculated that each security officer worked forty hours per week for an individual total of 2,080 hours per year, multiplied by the fifteen security officers, *i.e.*, 31,200. 7/21/14 TR at 276 (Dorsey); *see also* PX186. In addition, Mr. Dorsey added three-and-a-half hours of overtime per pay period for a total of 1,365. PX186. These estimates were incorporated into Mr. Metcalfe's expert report. PX186. Although the Government contends that the more accurate annual measure is 26,280—twenty-four hours per day, multiplied by 365 days in a year for the three security officers to monitor the expanded area—this would exclude other mandatory job duties like briefings and trainings. 7/21/14 TR at 277–78 (Dorsey). Therefore, the 31,200 estimate provided by Plaintiffs was shown “with reasonably certainty.” *Ind. Mich. Power Co.*, 422 F.3d at 1373.

Several hourly wage rates were applicable for the BREs at Grand Gulf, requiring an estimate rate. 7/21/14 TR at 38 (stating that Plaintiffs do not have complete records for the security costs); *see also* PX2138, at 28 (Metcalfe Written Direct) (stating that “[i]n [his] opinion, estimates of this nature developed here for [Plaintiffs'] incremental security personnel meet the standard of reasonable certainty required for economic damages”). Mr. Metcalfe elected to use the SO-10SD 14 rate, because “60–70 percent of the employees who worked at the claimed BREs had [six] or more years experience.” DX1129, at Att. 8-c (Peterson Written Direct). Some evidence adduced at trial shows that the average hourly rate was lower, but other shows a higher hourly rate. *Compare* 7/22/14 TR at 560–65 (Dorsey); DX1058; DX1059, at 17, 19, 25–26, 45–46 *with* PX2139; PX2124; PX2143. Having weighed the evidence, the court finds that Plaintiffs have estimated the hourly rate for the BRE security costs “with reasonable certainty.” *Ind. Mich. Power Co.*, 422 F.3d at 1373; *see also id.* (stating that the damages “need not be ascertainable with absolute exactness or mathematical precision”) (internal quotation omitted). In addition, since the Wackenhut costs were documented by actual invoices, they were established with “reasonable certainty.” *Id.*; *see also* PX1297; PX1515.

For these reasons, the court has determined that Plaintiffs are entitled to \$3,707,710 for additional security officers and \$511,201 for Wackenhut security services.

2. Whether Plaintiffs Are Entitled To \$1,031,958 For Whiting Part 21 Crane Costs And For Costs To Analyze And Repair The Defective Spent Nuclear Fuel Cask Handling Crane.

a. Plaintiffs' Argument.

Plaintiffs claim \$6,009 for Whiting Part 21 crane costs and \$1,025,949 to evaluate the cask crane and related structure for loading Holtec casks at Grand Gulf, totaling \$1,031,958. 7/18/14 Jt. Stip. ¶ 6(a); *see also* 7/18/14 Jt. Stip. at 1. Plaintiffs contend that “they performed an evaluation of the cask crane and related structure specifically for use with the Holtec system and that, if DOE had timely performed, Plaintiffs would have instead conducted the evaluation of the cask crane specifically for use with the DOE casks.” Pls. 10/3/14 Br. at 33–34; *see also* Pls. 11/13/14 Reply at 15 (citing 7/21/14 TR at 88–89 (Warren)). When DOE performs, however, Plaintiffs will need to conduct another evaluation. Pls. 10/3/14 Br. at 34; *see also* Pls. 11/13/14 at 15 (citing 7/23/14 TR at 957 (Brewer) (stating that “an engineering analysis and evaluation will have to be done to say that the calculations that were performed bound that new device”)).

b. The Government's Response.

The Government responds that these costs were incurred and are supported by adequate contemporaneous documentation, but contends that they would have been incurred, if DOE performed. 7/18/14 Jt. Stip. ¶ 6(a); Gov't 10/3/14 Br. at 29 (stating that “cask crane was defective and would have required repairs prior to the loading of SNF into any cask—whether for loading to dry storage, as was done in the actual world, or loading to DOE in the ‘but for’ world”); *see also* Gov't 11/13/14 Reply at 12 (same).

In addition, Plaintiffs' witnesses failed to establish that these costs can be considered as damages. Plaintiffs' technical expert, Ms. Supko, “simply ignored these cask crane evaluation costs in her report with no explanation.” Gov't 10/3/14 Br. at 29 (citing PX2137 (Supko Written Direct)). Two other witnesses, Mr. Warren and Mr. Ellis, “were not asked to analyze what claimed activities would not have been necessary with timely DOE performance,” but Mr. Warren confirmed that the cask crane would have been analyzed for compatibility if DOE performed. Gov't 10/3/14 Br. at 30 (citing 7/21/14 TR at 115, 129–32 (Warren), 187–188 (Ellis); PX2137, at 62 (Supko Written Direct)); *see also* Gov't 11/13/14 Reply at 13–14 (reiterating the same arguments and stating that the “snippet of testimony” from Mr. Warren upon which Plaintiffs rely “is the wrong standard under which incurred costs are evaluated”).

What happened is, Plaintiffs received a Part 21 notification from its crane manufacturer, Whiting Corporation, advising that Plaintiffs “could no longer lift loads up to the original 150-ton design capacity of the crane, but was instead ‘derated’ to 75 tons until the Part 21 notification was addressed.” Gov't 10/3/14 Br. at 30 (citing 7/21/14 TR at 132–33 (Warren), 205 (Ellis)); *see also* Gov't 11/13/14 Reply at 14 (same). This demonstrates that “the problems with [Plaintiffs'] spent fuel cask crane arose independent of [Plaintiffs'] need for dry storage,” and “[a]ll the[se] deficiencies . . . would have needed to have been addressed prior to cask loading operations, whether the loading was to DOE or to dry storage.” Gov't 10/3/14 Br. at 30–31 (citing DX1128, at 5–8 (Brewer Written Direct); 7/21/14 TR at 205–06 (Ellis)); *see also* Gov't 11/13/14 Reply at 14 (same). The United States Court of Federal Claims recently denied similar damages claims in *Carolina Power & Light Co. v. United States*, 115 Fed. Cl. 57, 67 (2014). *Id.* (“The needed modifications that Progress Energy made after the study suggest that the study had value beyond the need for dry storage at Brunswick, and would have been performed independent of the breach.”)); *see also* Gov't 10/13/14 Br. at 31; Gov't 11/13/14 Reply at 15 (same).

Moreover, Plaintiffs' crane was “single-failure proof,” *i.e.*, failure of a single component would not cause the crane to drop a cask, but the crane would not have been certified, without an evaluation. Gov't 10/3/14 Br. at 31 (citing 7/21/14 TR at 88 (Warren); DX1128, at 5–6 (Brewer Written Direct)). Likewise, Plaintiffs' witness, “Ms. Supko, assumes for the purposes of her ‘but for’ world analysis that the crane is single-failure proof, [but she failed] to recognize that some of the costs that [Plaintiffs] seek[] to recover were for evaluations needed to establish it as so.” Gov't 10/3/14 Br. at 31 (citing PX2137, at 47 (Supko Written Direct)).

The Government adds that Plaintiffs “mistakenly include[] these costs in the section of its brief dealing with issues previously addressed by the [c]ourt. However, this crane evaluation is a new issue for which [Plaintiffs] claim[] costs for the first time in this case.” Gov't 11/13/14 Reply at 12–13. If Plaintiffs believe they are “automatically entitled to recover any associated costs” to

constructing a dry storage facility, “then [Plaintiffs] are mistaken on the law.” Gov’t 11/13/14 Reply at 13 (citing *Energy Nw.*, 641 F.3d at 1307 (holding that plaintiffs must show that the costs would not have been incurred in a “but for” world)).

c. The Court’s Resolution.

Although Plaintiffs claim that the crane evaluation was specific to the Holtec cask system, this is not the relevant inquiry. Instead, the court must determine whether Plaintiffs would have conducted the crane evaluation, if DOE performed, and, if so, compare the relative costs of the evaluation for Holtec versus DOE casks. See *Energy Nw.*, 641 F.3d at 1306 (“[P]laintiff[s] must prove the extent to which [their] incurred costs differ from the costs [they] would have incurred in the non-breach world.”). In this case, Plaintiffs did not present evidence that the crane analysis and repair was caused by DOE’s breach, since Plaintiffs would have been required to incur these costs, if DOE performed. 7/21/14 TR at 132–33 (Warren), 205 (Ellis); DX1128, at 5–8 (Brewer Written Direct); see also *System Fuels IV*, 666 F.3d at 1312 (“Plaintiffs bear the burden to establish the alleged mitigation costs were caused by the breach.”) (citing *Energy Nw.*, 641 F.3d at 1307).

For these reasons, the court has determined that Plaintiffs are not entitled to \$6,009 for Whiting Part 121 crane costs, nor to \$1,025,949 to evaluate the cask crane and related structure for loading Holtec casks at Grand Gulf.

3. Whether Plaintiffs Are Entitled To \$185,399 To Design Radio Remote Controls For The Crane.

a. Plaintiffs’ Argument.

Plaintiffs claim \$185,399 to evaluate the potential installation of remote controls for the spent fuel cask crane at Grand Gulf. 7/18/14 Jt. Stip. ¶ 6(b). Plaintiffs never implemented these modifications due to cost considerations. 7/21/14 TR at 178 (Ellis). Nevertheless, Plaintiffs argue that “[t]he evidence presented at trial demonstrated that the cask crane remote control evaluation was conducted for reasons specific to [Plaintiffs’] use of the Holtec system for dry fuel storage.” Pls. 10/3/14 Br. at 34 (citing 7/21/14 TR at 95 (Warren), 180 (Ellis)); see also Pls. 11/13/14 Reply at 15 (same). “If DOE had timely performed, Plaintiffs would have conducted a different evaluation of the cask crane for use with DOE-supplied transportation casks, not with Holtec casks.” Pls. 11/13/14 Reply at 15 (citing 7/21/14 TR at 88 (Warren)). In addition, Plaintiffs cannot determine “whether these activities will need to be repeated when DOE performs (or to what extent and at what costs).” Pls. 11/13/14 Reply at 15 (citing 7/23/14 TR at 957 (Brewer) (“When DOE performs . . . an engineering analysis and evaluation will have to be done to say that the calculations that were performed bound that new device, because [the specifications of the cask could] create[] a different loading situation . . . and may or may not be bounded by the old analysis.”)). In addition, “the Government’s expert conceded that study of the remote controls was a reasonable thing to do.” Pls. 10/3/14 Br. at 34 (citing 7/23/14 TR at 961 (Brewer)).

Although the remote controls were not installed, this cost should be allowed, because “[i]f DOE had performed, and provided a DOE cask, the cask crane remote control evaluation would not have been necessary or performed.” Pls. 10/3/14 Br. at 34 (citing *Ind. Mich. Power Co.*, 422

F.3d at 1375 (holding that plaintiffs can recover for reasonable, but unsuccessful, mitigation efforts)).

b. The Government's Response.

Although the Government concedes that these costs were incurred and are supported by adequate contemporaneous documentation, it argues that they would have been incurred even if DOE performed. 7/18/14 Jt. Stip. ¶ 6(b).

The Government contends that the \$185,399 “was not necessary to load casks, as demonstrated by the fact that the Grand Gulf plant loaded [seventeen] SNF casks using the existing pendant crane controls.” Gov’t 10/3/14 Br. at 32 (citing DX1128, at 26 (Brewer Written Direct)); *see also* Gov’t 11/13/14 Reply at 15 (same). “[T]here are no unique features to the Holtec cask system at Grand Gulf that required [Plaintiffs] to explore this design modification,” and contrary to Ms. Supko’s assumptions, “[t]he same perceived benefits to using such controls would have applied equally to large rail-type DOE casks.” Gov’t 10/3/14 Br. at 32 (citing DX1128, at 26 (Brewer Written Direct)).

In addition, “loading to DOE in the ‘but for’ world would have commenced at Grand Gulf in 2006, the same year that loading to dry storage began,” meaning that “the age, condition, and performance of the existing spent fuel cask crane controls would have been the same in both worlds, and [Plaintiffs] would have pursued the design for the remote control modification even with DOE performance.” Gov’t 10/3/14 Br. at 32 (citing DX1128, at 26 (Brewer Written Direct)); *see also* Gov’t 11/13/14 Reply at 16 (same). Plaintiffs “rel[y] upon conclusory statements from [their] witnesses backed by no analysis.” Gov’t 11/13/14 Reply at 15 (citing Pls. 10/3/14 Br. at 10; 7/21/14 TR at 114–15 (Warren), 187–88 (Ellis)). As such, these costs are unrecoverable. Gov’t 10/3/14 Br. at 32 (citing *Energy Nw.*, 641 F.3d at 1307 (“If a cost would have been incurred even in the non-breach world, it is not recoverable.”)); *see also* Gov’t 11/13/14 Reply at 16 (same).

c. The Court's Resolution.

Although Plaintiffs claim that the remote control design was specific to the Holtec cask system, this is not the relevant inquiry. Instead, the court must determine whether Plaintiffs would have conducted the remote control design, if DOE performed, and, if so, compare the relative costs of the design for Holtec versus DOE casks. *See Energy Nw.*, 641 F.3d at 1306 (“[P]laintiff[s] must prove the extent to which [their] incurred costs differ from the costs [they] would have incurred in the non-breach world.”). In this case, however, Plaintiffs did not present evidence of the costs of the remote control design specific to DOE casks, and the Government showed that the benefits of the remote control would have applied, if DOE performed. DX1128, at 26 (Brewer Written Direct). As such, Plaintiffs did not meet their burden to establish that the costs incurred for the remote control design were caused by DOE’s breach. *See System Fuels IV*, 666 F.3d at 1312 (“Plaintiffs bear the burden to establish the alleged mitigation costs were caused by the breach.”) (citing *Energy Nw.*, 641 F.3d at 1307).

For these reasons, the court has determined that Plaintiffs are not entitled to \$185,399 for the design of radio remote controls for the crane.

4. Whether Plaintiffs Are Entitled To \$1,769,201 For An Operational Sequence Design And For Dose Assessment Analyses.

a. Plaintiffs' Argument.

Plaintiffs claim \$1,718,311 for an operational sequence design and \$50,890 for dose assessment analyses, totaling \$1,769,201, associated with loading casks at Grand Gulf. 7/18/14 Jt. Stip. ¶ 6(c); *see also* 3/6/15 Chron. at 1. Plaintiffs argue that “the operational sequence design and analysis were performed specifically for the HI-TRAC/HI-STORM system” and that “when DOE performs and provides casks, Plaintiffs will need to develop, and incur the costs of, another operational sequence design and conduct another operational sequence analysis specific to the DOE-provided casks.” Pls. 10/3/14 Br. at 32 (citing 7/21/14 TR at 93 (Warren)); *see also* Pls. 11/13/14 Reply at 16 (same).

Although it is impossible to determine what dose analysis would have been required had DOE performed, “[a]t a minimum, . . . the dose assessment . . . would not have been necessary.” Pls. 11/13/14 Reply at 17. Therefore, “absent DOE’s breach, these specific analyses would not have been conducted.” Pls. 11/13/14 Reply at 17 (citing 7/23/14 TR at 938 (Brewer) (stating that a new analysis is required for the Holtec system but not for the DOE system)). Plaintiffs acknowledge that the costs of additional dose assessment analyses are “speculative,” but they would not have needed to perform the dose assessment analyses, if DOE performed. Pls. 10/3/14 Br. at 33; *see also* Pls. 11/13/14 Reply at 17 (“Again, if required for a DOE system, the DOE analyses are deferred costs, and the costs for the Holtec system should be allowed.”).

b. The Government’s Response.

The Government concedes that these costs were incurred and that they are supported by adequate contemporaneous documentation, but contends that they would have been incurred even if DOE performed. 7/18/14 Jt. Stip. ¶ 6(c). Prior to conducting the operational sequence design and dose assessment analyses, Plaintiffs lacked information necessary “to load SNF either to DOE or to dry storage.” Gov’t 10/3/14 Br. at 33 (citing DX1128, at 9 (Brewer Written Direct); 7/21/14 TR at 115–18 (Warren)). Therefore, “even with DOE performance, [Plaintiffs] would have had to perform the evaluations necessary to ensure cask handling operations were consistent with the plant design basis.” Gov’t 10/3/14 Br. at 33; *see also* Gov’t 11/13/14 Reply at 19 (“Mr. Warren confirmed that an operational sequence and dose assessment would have been needed even with DOE performance.”) (citing 7/21/14 TR at 115–18 (Warren)).

The Government rejects Plaintiffs’ claim that they will need to conduct another operational sequence design when DOE performs, as premature. Gov’t 10/3/14 Br. at 33 n.13 (“[A]t that time [Plaintiffs] can attempt to argue that it would not have incurred these costs a second time with timely DOE performance.”) (citing *Energy Nw.*, 641 F.3d at 1307 (“If a cost would have been incurred even in the non-breach world, it is not recoverable.”)); *see also* Gov’t 11/13/14 Reply at 18 (“[T]he work that [Plaintiffs] tr[y] to recover costs for here established the baseline operational sequence needed to load any cask at the plant and future casks will be analyzed against that baseline to see what if any changes are needed.”) (citing 7/23/14 TR at 938–39 (Brewer)).

The Government adds that Plaintiffs took “the erroneous position . . . that the recoverability of these evaluations has already been decided in [their] favor.” Gov’t 10/3/14 Br. at 34; *see also* Gov’t 11/13/14 Reply at 17 (same). Instead, “the [c]ourt never found those costs to be recoverable, but specifically left that determination for future trials.” Gov’t 10/3/14 Br. at 34 (citing *System Fuels II*, 78 Fed. Cl. at 804 (“[P]laintiffs . . . are not foreclosed from attempting to recover this cost in a future suit for damages.”)); *see also* Gov’t 11/13/14 Reply at 17 (same). Therefore, Ms. Supko relied on the incorrect recommendation of counsel and did not address whether these costs would have been incurred had DOE performed. Gov’t 10/3/14 Br. at 34 (citing PX2137 (Supko Written Direct)); *see also* Gov’t 11/13/14 Reply at 17–18 (same).

c. The Court’s Resolution.

Plaintiffs contend that the costs for operational sequence design and dose assessment analyses associated with loading casks at Grand Gulf were specific to the Holtec casks, but this is not the relevant inquiry. Instead, the court must determine whether Plaintiffs would have incurred these costs, if DOE performed, and, if so, compare the relative costs of the analyses for Holtec casks versus DOE casks. *See Energy Nw.*, 641 F.3d at 1306 (“[P]laintiff[s] must prove the extent to which [their] incurred costs differ from the costs [they] would have incurred in the non-breach world.”).

At trial, the evidence established that Plaintiffs would have conducted the operational sequence design for DOE casks, if DOE performed. 7/21/14 TR at 118 (Warren) (“If DOE were to pick up fuel, yes, we would do those same analyses.”). Nor did Plaintiffs present evidence of the operational sequence design costs specific to DOE casks. Consequently, Plaintiffs did not meet their burden to establish that the operational sequence design costs were incurred as a result of DOE’s breach. *See System Fuels IV*, 666 F.3d at 1312 (“Plaintiffs bear the burden to establish the alleged mitigation costs were caused by the breach.”) (citing *Energy Nw.*, 641 F.3d at 1307). But, Plaintiffs did present evidence establishing that the dose assessment analyses would not have been necessary, if DOE performed. 7/21/14 TR at 94, 143 (Warren) (testifying that dose assessment analyses would not have been necessary for DOE casks, because DOE casks would not have been transported to the ISFSI); *see also* 7/23/14 TR at 940–41 (Brewer) (same).

For these reasons, the court has determined that Plaintiffs are entitled to \$50,890 for dose assessment analyses, but not to \$1,718,311 for operational sequence design associated with loading casks at Grand Gulf.

5. Whether Plaintiffs Are Entitled To \$550,166 To Modify A Work Platform Used To Load Spent Nuclear Fuel Into Casks.

a. Plaintiffs’ Argument.

Plaintiffs claim \$550,166 to install a work platform in the cask washdown pit.²¹ 7/18/14 Jt. Stip. ¶ 6(d).

²¹ The cask washdown pit is a cavity where a SNF cask is staged, prepared, and cleaned before being moved to the cask storage pit to load assemblies into the cask. DX1128, at 11 (Brewer

Plaintiffs argue that “[t]he evidence presented at trial established that the work platform was custom designed for the specific dimensions of the Holtec HI-TRAC system and that its need was a direct result of activities related to welding the Holtec MPC-68 canister lid.” Pls. 10/3/14 Br. 35 (citing 7/21/14 TR at 97–98 (Warren); 7/22/14 TR at 683–84 (Supko)); *see also* Pls. 11/13/14 Reply at 17 (same). The Government’s witness acknowledged that “it is ‘theoretically possible’ to secure the bolts on the lid of a bolted cask system without a work platform” but could not say whether the platform would work with a DOE-supplied cask. Pls. 11/13/14 Reply at 17 (quoting 7/23/14 TR at 944 (Brewer)), 18 (citing 7/23/14 TR at 947 (Brewer)). Because “[t]he work platform would not have been required to load DOE casks with a bolted closure. . . . there would have been no need to purchase the work platform,” if DOE performed. Pls. 10/3/14 Br. at 35 (citing 7/22/14 TR at 683 (Supko); PX2137, at 68–69 (Supko Written Direct)); *see also* Pls. 11/13/14 Reply at 17 (same).

b. The Government’s Response.

The Government concedes that these costs were incurred and that they are supported by adequate contemporaneous documentation, but contends that they would have been incurred, if DOE performed. 7/18/14 Jt. Stip. ¶ 6(d).

The Government, however, argues that washdown activities “would be required for loading any spent fuel cask to be used for storage or transportation, including a cask supplied by DOE” and that these activities would take place in the cask washdown pit and cask storage pit. Gov’t 10/3/14 Br. at 35 (citing PX2137, at 64–67 (Supko Written Direct)). Although Plaintiffs decided to install a work platform, because “the original walkways and spray ringer header would have presented an unacceptable safety risk . . . , [t]he decision to replace this walkway with a safer, adjustable work platform would have been made regardless of the SNF cask that was being used.” Gov’t 10/3/14 Br. at 36 (citing DX1128, at 11 (Brewer Written Direct)); *see also* Gov’t 11/13/14 Reply at 20 (same). Similarly, the spray ringer header would have been removed before Plaintiffs loaded the DOE casks. Gov’t 10/3/14 Br. at 36 (citing DX1128, at 14–15 (Brewer Written Direct)); *see also* Gov’t 11/13/14 Reply at 20 (same).

The Government characterizes Ms. Supko’s testimony as “overly simplistic” and “premised on a fundamental misunderstanding” of cask washdown activities. Gov’t 10/3/14 Br. at 36 (citing DX1128, at 13–14 (Brewer Written Direct)); *see also* Gov’t 11/13/14 Reply at 19 (same). Plaintiffs’ other witnesses, Mr. Warren and Mr. Ellis, also did not analyze whether the work platform would have been installed, if DOE performed. Gov’t 10/3/14 Br. at 36–37 (citing 7/21/14 TR at 120 (Warren); 7/21/14 TR at 195 (Ellis)); *see also* Gov’t 11/13/14 Reply at 19–20 (same). In addition, at a different plant, Plaintiffs “installed a new work platform as part of its dry storage project, even though the cask being used to remove SNF from the facility used a bolted closure.” Gov’t 10/3/14 Br. at 36 (citing DX1128, at 14 (Brewer Written Direct)); *see also* Gov’t 11/13/14 Reply at 19 (same).

Written Direct). After a cask is loaded, it is transferred from the cask storage pit to the cask washdown pit for closure and decontamination activities. DX1128, at 11 (Brewer Written Direct).

Should Plaintiffs argue that “a different work platform may need to be built again in the future to load to DOE. . . . , the [United States Court of Appeals for the] Federal Circuit specifically held that costs for plant modifications, such as permanent work platforms, are not analyzed for whether those costs will need to be performed again.” Gov’t 10/3/14 Br. at 37 (citing *Energy Nw.*, 641 F.3d at 1305–07 (holding that plaintiffs could recover for plant modifications, only if they could show that the plant modification costs would not have been incurred but for the breach)).

The Government again adds that Plaintiffs “mistakenly include[] these costs in the section of its brief dealing with costs addressed by the [c]ourt in the first round, when these costs are new to this second round case.” Gov’t 11/13/14 Reply at 19.

c. The Court’s Resolution.

Cask washdown activities are required for loading all SNF casks, including any DOE-supplied cask. PX2137, at 65 (Supko Written Direct); *see also* DX1128, at 11 (Brewer Written Direct). In addition, Plaintiffs installed a work platform at the Indian Point 3 plant, even though the casks used at Indian Point 3 were bolted and not welded. DX1128, at 14 (Brewer Written Direct). But at trial, Plaintiffs demonstrated that the work platform would not have been required, if DOE performed. 7/22/14 TR at 683 (Supko) (confirming that, in her opinion, “the new work platform would not have been required to load DOE casks because the DOE cask would have had a welded closure”); *see also* PX2137, at 68–69 (Supko Written Direct) (“[I]t is my opinion that there would not have been any welding operations associated with loading a DOE cask and there would not have been a need to purchase the work platform that was installed in the CWP.”). Although replacing the work platform may have improved safety in the non-breach world, the safety benefits were greater in the breach world, since the Holtec casks have bolted closures and are greater in size. 7/22/14 TR at 683 (Supko); *see also* PX2137, at 68–69 (Supko Written Direct).

The court recognizes that in *Alabama Power*, the court stated, “Because [the plaintiff] purchased and loaded the Holtec casks as a result of the [G]overnment’s breach, it is entitled to recover for the modifications that were necessary to facilitate the loading process—including the new pit covers.” 2014 WL 7465683, at *17. The court then determined that the work platform was “convenient and smart,” but “not *necessary* to load the casks,” and denied that claim. *Id.* at *21 (emphasis in original). In this case, the court has determined that modifications that reduce risk in the breach world—more than in the non-breach world—satisfy the United States Court of Appeals for the Federal Circuit’s requirements. *See S. Nuclear Operating Co.*, 637 F.3d at 1304 (“As we held in *Yankee Atomic*, [b]ecause plaintiffs . . . are seeking expectancy damages, it is incumbent upon them to establish a plausible ‘but for’ world.”) (internal quotation omitted).

For these reasons, the court has determined that Plaintiffs are entitled to \$550,166 to install a work platform in the cask washdown pit.

6. Whether Plaintiffs Are Entitled To \$111,000 To Analyze The Effects Of Loading Non-Complaint Spent Nuclear Fuel To Dry Storage.

a. Plaintiffs’ Argument.

In 2006, Plaintiffs mistakenly loaded SNF fuel assemblies that did not meet the Certificate of Compliance for dry storage casks, because of an error in Plaintiffs’ SNF database. 7/24/14 TR

at 999 (Smith). This mistake was discovered in 2008, after SNF was loaded into dry storage at Grand Gulf. DX1128, at 17 (Brewer Written Direct); *see also* 7/24/14 TR at 982, 987 (testifying that the database contained an error in burnup data for Grand Gulf fuel), 999 (Smith).

Thereafter, the NRC granted an exemption to Plaintiffs, so that Plaintiffs did not have to unload the casks and return them to the SNF pool. 7/24/14 TR at 1002–03, 1008–10 (Smith); DX1069 (Entergy letter to NRC); DX1076 (Plaintiffs’ Exemption Request); DX1128, at 17 (Brewer Written Direct) (stating that the NRC exemption request was granted).

In this case, Plaintiffs seek \$111,000, including loaders, for Holtec to analyze the spent fuel assemblies. 7/18/14 Jt. Stip. ¶ 6(j); *see also* DX1068 (Holtec Contract). Plaintiffs argue that, “[c]ontrary to the Government’s assertions” that the misloading was not caused by DOE’s breach, “Plaintiffs would not have incurred the \$11[1],000 in costs claimed to remedy the misloading,” if DOE performed. Pls. 11/13/14 Reply at 18 n.3. Plaintiffs reason that “[a]n injured party is not required to mitigate the damages of a breach with perfection for those damages to be recoverable.” Pls. 11/13/14 Reply at 18 n.3 (citing *Koby v. United States*, 53 Fed. Cl. 493, 497 (2002) (quoting *In re Kellet Aircraft Corp.*, 186 F.2d 197, 198 (3d Cir. 1950) (“Where a choice has been required between reasonable courses [of mitigation], the person whose wrong forced the choice cannot complain that one rather than the other was chosen.”)). If “DOE performed, Plaintiffs would not have implemented dry fuel storage at Grand Gulf and would not have been required to load casks in accordance with [Holtec’s] Certificate of Compliance.” Pls. 11/13/14 Reply at 18 n.3.

b. The Government’s Response.

The Government responds that these costs were incurred and were supported by adequate contemporaneous documentation, but contends that they would have been incurred, if DOE performed. 7/18/14 Jt. Stip. ¶ 6(j). The Government argues that “[t]he evidence demonstrated that the database error that resulted in this non-compliant loading was not caused by DOE’s delay, nor even by the need for dry storage,” but a mistake by Plaintiffs’ engineers. Gov’t 10/3/14 Br. at 41 (citing DX1128, at 17–18 (Brewer Written Direct); 7/24/14 TR at 991–99 (Smith); DX1069, Att. 1, at 2 (Plaintiffs’ Report to NRC)); *see also* Gov’t 11/13/14 Reply at 22–23 (same).

The database “contains fuel characteristic data that would be required for loading SNF to DOE,” *i.e.*, this error would have occurred, if DOE performed. Gov’t 10/3/14 Br. at 41 (citing DX1128, at 17 (Brewer Written Direct) (“Neither the use of a database nor [Plaintiffs’] error was unique to dry storage.”); 7/24/14 TR at 986–87 (Smith) (testifying that the data on characteristics of individual fuel assemblies is not unique to dry storage)).

Therefore, the Government could not have foreseen Plaintiffs’ mistake, rendering the costs unrecoverable. Gov’t 10/3/14 Br. at 42 (citing *Ind. Mich. Power Co.*, 422 F.3d at 1373 (holding that damages reasonably must be foreseeable to be recoverable)); *see also* Gov’t 11/13/14 Reply at 23 (same).

Finally, Plaintiffs’ failure to address this cost in their October 3, 2014 Post-Trial Brief “can be seen as recognition that it has no evidence to establish that the Government should be required to reimburse [Plaintiffs for their] own mismanagement of [their] fuel database.” Gov’t 11/13/14 Reply at 23.

c. The Court’s Resolution.

As a matter of law, “Plaintiffs [have] the burden to establish the alleged mitigation costs were caused by the breach.” *System Fuels IV*, 666 F.3d at 1312 (citing *Energy Nw.*, 641 F.3d at 1307). In this case, the Government’s evidence showed that the database error would have occurred, if DOE performed. DX1128, at 17–18 (Brewer Written Direct) (“Neither the use of the database nor [Plaintiffs’] error was unique to dry storage. There is no reason to believe if DOE had been performing [Plaintiffs’] error would not have occurred and resulted in a misloading event.”); *see also* 7/24/14 TR at 986–87 (Smith) (stating that the database error was not unique to dry storage). As such, Plaintiffs failed to meet their burden to establish that the costs of analyzing the effects of the SNF cask loading would not have occurred in the non-breach world. *See Energy Nw.*, 641 F.3d at 1306 (“[P]laintiff[s] must prove the extent to which [their] incurred costs differ from the costs [they] would have incurred in the non-breach world.”); *see also System Fuels IV*, 666 F.3d at 1312 (“Plaintiffs still possesses the burden to establish the alleged mitigation costs were caused by the breach.”) (citing *Energy Nw.*, 641 F.3d at 1307).

For these reasons, the court has determined that Plaintiffs are not entitled to \$111,000 to analyze the effects of loading non-compliant SNF to dry storage.

7. Whether Plaintiffs Are Entitled To \$901,125 For Nuclear Regulatory Commission Fees.

a. Plaintiffs’ Argument.

Plaintiffs’ claim \$901,125 to pay 10 C.F.R. Part 171²² NRC fees (“Part 171 fees”) from September 1, 2005 to December 31, 2011. 7/18/14 Jt. Stip. ¶ 6(k). Plaintiffs argue that if DOE performed: “[t]he evidence presented at trial here adequately demonstrated that . . . the NRC would have had no reason to change its fee structure related to th[e Part 171 NRC fee] issue”; and Plaintiffs “would not have built an ISFSI, and therefore, Plaintiffs would not have incurred the Part 171 NRC SFS/RD Fees charged to plants with onsite SNF storage.” Pls. 10/3/14 Br. at 51; *see also* Pls. 11/13/14 Reply at 19 (same) (citing PX2138, at 34–36 (Metcalf Written Direct)).

In support, Plaintiffs cite *Boston Edison Co. v. United States*, 658 F.3d 1361 (Fed. Cir. 2011) (holding that the plaintiff “was forced to pay more in aggregate fees as a result of [NRC’s] rule change”). Pls. 10/3/14 Br. at 50–51; *see also* Pls. 11/13/14 Reply at 20 (same). In addition, Mr. Metcalfe testified as “an expert on economic damages and opine[d] as to the economic justification for the NRC’s change to its fee structure.” Pls. 11/13/14 Reply at 19. Mr. Metcalfe’s opinion is based on NRC documents and the deposition testimony of NRC Deputy Chief Financial Officer Peter Rabideau and NRC Senior Policy Analyst Tammy Croote in a related case, as sufficient support for the court to award Plaintiffs \$901,125 for NRC fees. Pls. 10/3/14 Br. at 50;

²² Part 171 fees “annually are charged to all nuclear utilities that have not permanently ceased operations or that still have nuclear fuel onsite.” *Sacramento Mun. Util. Dist. v. United States*, 109 Fed. Cl. 660, 691 (Jan. 31, 2013) (“*SMUD VII*”), *vacated and remanded on other grounds, SMUD VIII*, 566 F. App’x 985; *see also* 10 C.F.R. § 171.15 (Annual fees: Reactor licenses and independent spent fuel storage licenses).

see also Wis. Elec. Power Co. v. United States, 90 Fed. Cl. 714, 785, 803 (Dec. 18, 2009) (summarizing Mr. Rabideau’s testimony that “segregated eighty percent of the underlying costs of the NRC included in th[e plaintiff’s] fee as either relating to spent fuel storage or not, and then calculating the ratio of spent fuel storage costs to the identified eighty percent, and applied that ratio to the remaining twenty percent” and awarding fees “except for amounts identified as the dry storage related portion of NRC SFS/RD fees”); PX2049 (Dec. 1, 2006 Deposition Testimony of Tammy Croote); PX2050 (Dec. 14, 2006 Deposition Testimony of Peter Rabideau). In addition, the Government’s expert, Mr. Peterson, did not challenge Mr. Metcalfe’s methodology, nor did he offer an alternative calculation of Part 171 fees. Pls. 10/3/14 Br. at 50.

b. The Government’s Response.

The Government concedes that these costs were incurred and that they are supported by adequate contemporaneous documentation, but contends that they would have been incurred, if DOE performed. 7/18/14 Jt. Stip. ¶ 6(k). The Government argues that “the entire basis for this claim is the testimony of [P]laintiffs’ accounting expert Mr. Metcalfe,” who is not qualified to offer “a legal opinion about why the NRC changed its regulatory fee structure.” Gov’t 10/3/14 Br. at 42.

Plaintiffs also did not establish that the increase in NRC fees was caused by DOE’s breach. Gov’t 10/3/14 Br. at 43 (citing *Consol. Edison Co. of N.Y. v. Entergy Nuclear Indian Point 2, LLC*, 676 F.3d 1331, 1337 (Fed. Cir. 2012) (stating the two bases as “(1) that NRC’s overall generic costs increased as a result of DOE’s breach, causing the NRC to assess increased generic fees on each of its licensees; or (2) that [the] 1999 rule changed the fee allocation method as a result of DOE’s breach and increased [a SNF plaintiff’s] share of generic fees,” and reversing the award of NRC fees); *System Fuels, Inc. v. United States*, 111 Fed. Cl. 381, 384 (2013) (determining that Plaintiffs did not adequately explain their failure to timely designate the NRC’s former Chief Financial Officer as an additional expert); *SMUD VII*, 109 Fed. Cl. at 693, *vacated and remanded on other grounds*, *SMUD VIII*, 566 F. App’x at 987 (finding that Mr. Metcalfe’s testimony was “insufficient as a matter of law to demonstrate that the new NRC rules were the result of the [G]overnment breach”) (internal quotation omitted)); *see also* Gov’t 11/13/14 Reply at 24–25 (same). Instead, Plaintiffs “mostly relied upon the same documents and testimony that have been rejected as a matter of law by [the United States Court of Appeals for] the Federal Circuit.” Gov’t 10/3/14 Br. at 44 (citing 7/23/14 TR at 845–47 (Metcalfe) (stating that his deposition was “in substance” the same NRC fees opinion)); *see also* Gov’t 11/13/14 Reply at 23–24 (same).

c. The Court’s Resolution.

Plaintiffs argue that *Boston Edison Co.* establishes that expert testimony is sufficient to show that DOE’s breach caused SNF plaintiffs to pay increased NRC fees. Pls. 10/3/14 Br. at 50–51 (citing *Bost. Edison Co.*, 658 F.3d at 1369 (stating that the plaintiff “was forced to pay more in aggregate fees as a result of [NRC’s] rule change”). But, the United States Court of Appeals subsequently clarified that “in *Boston Edison [Co.]*, the [G]overnment did not contest, and we did not reach, the underlying issue of whether DOE’s partial breach of the Standard Contract caused the generic fees assessed on the plaintiff to increase.” *Consol. Edison Co.*, 676 F.3d at 1337 n.7. Likewise, in *SMUD VII*, the United States Court of Appeals for the Federal Circuit affirmed the court’s determination that the plaintiff “failed to demonstrate that the Part 171 fee change was a

result of the Government's breach" and denied the plaintiff's claim to Part 171 fees. *SMUD VII*, 109 Fed. Cl. at 693–94, *vacated and remanded on other grounds*, *SMUD VIII*, 566 F. App'x at 987 (internal quotation omitted). In this case, Plaintiffs also have failed to demonstrate that DOE's breach caused Plaintiffs to pay increased Part 171 fees.

For these reasons, the court has determined that Plaintiffs are not entitled to \$901,125 in NRC fees.²³

8. Whether Plaintiffs Are Entitled To \$272,008 In Miscellaneous Costs.

Plaintiffs claim \$243,799 for general engineering analyses performed by Enercon, \$22,784 for unexplained work performed by Citibank, and \$5,425 for unexplained work performed by Holtec, totaling \$272,008. 3/6/15 Chron. at 1, 3. As the Government points out, Plaintiffs did not proffer evidence in support of its claim for \$243,799 in general engineering analyses, but the Government contends that these costs are unrecoverable. Gov't 10/3/14 Br. at 51 n.21 (citing DX1129, at Att. 7-d (Peterson Written Direct)). Other than listing the \$22,784 for Citibank charges and the \$5,425 for Holtec charges as "Undiscussed" in the March 6, 2015 Chronology, the parties made no other reference to these charges. Because Plaintiffs did not proffer evidence in support of its claim for \$243,799 in general engineering analyses, nor its claim for \$28,209 for "Undiscussed" services by Citibank and Holtec, Plaintiffs did not "prove the extent to which [their] incurred costs differ from the costs [they] would have incurred in the non-breach world." *Energy Nw.*, 641 F.3d at 1306.

For these reasons, the court has determined that Plaintiffs are not entitled to \$243,799 for general engineering analyses, \$22,784 for "Undiscussed" Citibank charges, nor \$5,425 for "Undiscussed" Holtec charges.

IV. CONCLUSION.

For the reasons discussed herein, the court has determined that Plaintiffs are entitled to \$38,839,591 for undisputed costs incurred for the Government's breach of contract; \$460,978 for haul path modifications; \$293,603 for payroll loaders associated with Resource Codes 19 and 60; \$4,218,911 for increased security costs; \$50,890 for dose assessment analyses; and \$550,166 for the installation of a work platform in the cask washdown pit. In sum, Plaintiffs are entitled to a total of \$44,414,139 for incurred costs.

²³ At trial and in their post-trial briefs, the parties contested whether Mr. Metcalfe was qualified to offer his expert opinion on the reasons for the changes in the NRC fee structure. 7/23/14 TR at 824–859 (Metcalfe); *see also* Pls. 11/13/14 Reply at 19; Gov't 10/3/14 Br. at 42.

The Clerk of the United States Court of Federal Claims is directed to enter final judgment in Case No. 11-511 in favor of Plaintiffs in the amount of \$44,414,139 for costs incurred from September 1, 2005 and July 31, 2011.

Plaintiff's August 8, 2014 Motion For Entry Of Judgment, Pursuant To RCFC 54(b) is now moot.

IT IS SO ORDERED.

s/ Susan G. Braden
SUSAN G. BRADEN
Judge