

UNITED STATES OF AMERICA 113 FERC ¶63,026  
FEDERAL ENERGY REGULATORY COMMISSION

Connecticut Yankee Atomic Power Company

Docket No. ER04-981-000

INITIAL DECISION ON DECOMMISSIONING COSTS

(Issued November 22, 2005)

APPEARANCES

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BRUCE L. BIRCHMAN, Presiding Administrative Law Judge

PROCEDURAL BACKGROUND

1. **In summary:**

- On the record as made and, on balance, the proponents have failed to adduce evidence which casts a serious doubt that Connecticut Yankee Atomic Power Company (CY or the company) acted imprudently during the periods at issue and imprudently incurred decommissioning costs. Even if this was not the case, the record establishes that CY was not imprudent in connection with the decommissioning schedule and that its actions and resulting costs in light of all of the circumstances existing during the periods at issue were not imprudent. In this respect, CY has demonstrated that its actions at issue were those of a reasonable

utility management, made in good faith, under the same circumstances and at the time were prudent.

- With regard to the allegations of the Connecticut Department of Public Utility (CTP) witness Hildebrand, its prudence witness, that CY was imprudent in the October 2001 - May 2002 timeframe delimited for failing to take decisive corrective action, this initial decision finds that CTP has failed to adduce evidence which casts a serious doubt that CY acted imprudently during the periods at issue. In any event, CY has demonstrated that it did what a reasonably prudent utility manager would be expected to do in the circumstances and at the time—voice concerns, seek to remedy them, when appropriate, exercise its authority under the DOC<sup>1</sup> Contract and issue change orders to compensate Bechtel Power Corporation (Bechtel) for certain activities in an effort to ameliorate problems on the ground, and to pursue mediation, consultation, and alternate dispute resolution with Bechtel in an effort to expedite progress and complete decommissioning. CY witness Lemley, a consultant engaged by CY and the former Chief Executive of the consortium that built and designed the Channel Tunnel that runs between Britain and France, cogently observed, “I go back to the level of sophistication of the contractor and the owner in this situation, and I don’t believe it would have been prudent for the owner to step into Bechtel’s shoes and start directing how Bechtel should perform this work.” Transcript (Tr.) at 1123; See also, Tr. at 1091. Further, I agree with CY witness Lemley that “CY rightfully sought to insulate itself, and ultimately ratepayers, from unnecessary and adverse risks. To suggest that CY could have usurped Bechtel’s role and responsibility under the contract, or recklessly terminated Bechtel before all reasonable alternatives had been explored, simply ignores common sense, good contracting practice, and CY’s oversight responsibilities in the turnkey relationship established by the contract between Connecticut Yankee and Bechtel.” Exhibit (Ex.) CY-69 at 2. Mr. Lemley also cogently noted that “Connecticut Yankee had to consider the fact that if it terminated Bechtel before the cleanup was completed, as Mr. Hildebrand advocates, Connecticut Yankee and ratepayers would be saddled with the added risk and liability of the RPV cleanup effort.”<sup>2</sup> Ex. CY-69 at 19.

- Similar findings are appropriate and apply with equal force to Bechtel’s contentions that CY was imprudent in connection with characterization and remediation of groundwater contamination after April 1, 1999 and until the June termination of Bechtel as DOC, the administration of the DOC with Bechtel, and

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<sup>1</sup> Contract for the Performance of Decommissioning Operations and Related Services, which was executed on April 3, 1999. DOC also refers to Decommissioning Operations Contractor, which was Bechtel.

<sup>2</sup> Reactor Pressure Vessel (RPV)

failing to issue a directed change order (DCO) when an agreed change order (ACO) could not be agreed upon.<sup>3</sup>

- I also find that Bechtel has failed to cast a serious doubt that CY is acting imprudently with regard to groundwater remediation since Bechtel's termination. In any event, the record establishes that CY was not imprudent and that it did what a reasonably prudent utility manager would be expected to do in good faith and in the circumstances at the time.
- I further find that FERC Trial Staff (Staff), based upon its limited review of documents in the record, has not cast a serious doubt that CY acted imprudently<sup>4</sup> with regard to groundwater characterization and remediation programs, segmentation of the RPV internals and RPV removal, and the resolution of contract disputes, including the alternative dispute resolution (ADR) process discussed below.
- In any event, as concerns the allegations of imprudence by CTP, Bechtel, and Staff, this initial decision finds that CY has demonstrated that its actions with regard to decommissioning were those of a reasonable utility management, made in good faith, under the circumstances present during the periods at issue and were not imprudent.
- This initial decision also finds that the escalation rate for decommissioning costs other than employee staffing, employee benefits, and GE Morris storage costs, should be based on the 20-year average Gross Domestic Product (GDP) implicit price deflator (from 1985 through 2004); and that CY shall make the future filings recommended by Staff witness Radel.
- Lastly, I adopt Staff's recommendation that CY be required to file an annual FERC Form 1 for each year in which it collects revenues from its customers. In these respects, CY is and will remain a jurisdictional utility for some time to come. Much of FERC Form 1 is still applicable to its operations as is reflected, for example, in the balance sheet and income statements in Volume 1 of 3 of its filing. In these circumstances, and, given substantial sums such as those sought to be recovered under the proposed rates, this is a necessary and just and reasonable end result.

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<sup>3</sup> ACO's and DCO's are explained and discussed under grouped issues A.5. and A.6.

<sup>4</sup> As discussed below, Staff stated that it was unable to determine whether the documents which it reviewed presented a clear enough picture for it to determine whether or not CY acted prudently in connection with the transfer of spent fuel to the independent spent fuel storage installation (ISFSI).

2. An index is provided in the Appendix of this decision.

3. By an order issued on August 30, 2004, 108 ¶ FERC 61,212 (2004), the Commission accepted for filing, suspended, subject to refund, and set for hearing the justness and reasonableness of CY's revised rate schedules which proposed to increase annual collections for decommissioning by \$76.3 million, from \$16.7 million annually to \$93 million annually, beginning January 2005 through December 2010, and proposed additional collections of \$6.4 million from January 2005 through June 2007 in order to supplement the funding of its employee pensions and post retirement benefits other than pensions. Under the governing trial schedule, the company filed supplemental direct testimony on November 22, 2004; direct and answering testimony was filed by intervenors, CTP and Bechtel on February 22, 2005; direct testimony was filed by Staff on March 21, 2005; cross-answering testimony was filed by CTP on April 1, 2005; and rebuttal testimony was filed by CY on April 29, 2005. Pretrial briefs (PTB) were filed by each of these participants by May 20, 2005. Initial briefs (IB) were filed on September 1, 2005, and Reply briefs (RB) were filed on October 6, 2005. Staff filed an erratum on October 6, 2005, to correct a citation in its IB. As good cause is present, Staff's brief is corrected in the manner requested.

4. A Protective Order was adopted which governed rolling discovery by all participants. Several discovery disputes involving various claims of privilege were extensive and time-consuming and were resolved prior to the hearing by my rulings at oral argument and/or by agreement by the participants in light of procedures which I established. Immediately prior to the commencement of the hearing, the participants stipulated to non-application of the Protective Order to use of discovery material at and after the hearing, subject to the deletion of certain information in Ex. CY-3, the decommissioning estimate, which all agreed was unnecessary to adjudication of the issues set for hearing.

5. The issues set for hearing and stipulated by the participants for adjudication are those which were set forth initially in the Revised Preliminary Joint Stipulation of Issues (JS) adopted by my order issued on April 4, 2005, as modified by the Final Joint Narrative Stipulation of Issues (FJS) which was adopted by my order issued on May 12, 2005. PTBs were filed by CY, CTP, Bechtel, and Staff on May 20, 2005. Hearing commenced on June 1, 2005 and concluded on June 21, 2005. The record includes approximately 382 pre-filed exhibits: the 109 exhibits shown on CY's master exhibit list reproduced at the end of Vol. 4 of the transcript; the 188 exhibits shown on CTP's master exhibit list of which is reproduced at the end of Vol. 15 of the transcript; the 83 exhibits shown on Bechtel's master exhibit list which is reproduced at the end of Vol. 16 of the transcript; and 2 exhibits sponsored by the Staff witness. Additionally, the record includes approximately 110 cross-examination exhibits, several of which were not admitted in evidence and a few of which are the subject of offers of proof. Subsequent to the hearing and the closing of the record, CTP filed a motion on July 12, 2005 for a

30-day extension of the deadlines for the filing of IBs and RBs and for the issuance of the initial decision to facilitate recuperation from heart surgery of CTP's lead counsel. By an order issued on July 14, 2005, the Chief Administrative Law Judge granted the uncontested motion and extended the deadline for the issuance of this decision to December 16, 2005, and required the filing of IBs by September 1, 2005 and RBs by October 7, 2005. The PTBs and the trial briefs address the stipulated issues in light of the record as made. The stipulated issues are addressed below in seriatim fashion and have been grouped where necessary for clarity of discussion.

#### The Yankee Plant and the Prior Decommissioning Proceeding

6. On December 4, 1996, CY's Board of Directors ended production of CY's 583 MW nuclear generating unit located at Haddam Neck, Connecticut. On December 26, 1996, CY filed amendments to its power sales contracts which sought to increase decommissioning charges by approximately \$426 million in 1996 dollars, or about \$24.8 million per year through 2007. Pertinently, the contract amendments were suspended, subject to refund and set for hearing in Docket No. ER97-913-000. Among other things, the 2000 estimate reflected CY's hiring of Bechtel on April 4, 1999, to decommission and dismantle the plant on a fixed price, turnkey basis as discussed in greater detail below.

7. The initial decision (ID) issued by Presiding Judge Cowan on August 31, 1998, in Connecticut Yankee Atomic Power Company, 84 FERC ¶ 63,009 (1998), found, among other things, that certain decommissioning costs associated with the removal and disposal of radiologically contaminated soil and asphalt were imprudent.<sup>5</sup> CY had acted as its own decommissioning project manager at that time. Exceptions to the ID were filed but the ID was not acted upon and its findings became moot in light of settlement of the case which was subsequently approved by the Commission next discussed.

8. By a letter order dated June 26, 2000, in Docket No. ER97-913-000, 92 FERC ¶ 61,055 (2000), the Commission approved an offer of settlement between CY and CTP which was filed with the Commission on April 7, 2000. Ex. CY-28. The letter order also approved another settlement between CY and The Connecticut Light & Power Company

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<sup>5</sup> The ID remarked about the then excessive contamination of soil and asphalt which required disposal and removal, observing that "[t]he evidence paints a pretty clear picture of drains carrying radioactive contaminants that were unmarked and uncontrolled, sloppy work habits around radiologically contaminated materials that went uncorrected, careless handling of radwaste outdoors, and uncontrolled or poorly monitored movement of contaminated materials on and off-site"; and fuel failures which resulted in radioactive particles and other contaminants escaping from the fuel rods into the reactor coolant systems, making cleanup more difficult and expensive. ID, supra, 84 FERC at page 65,129.

and Connecticut Municipal Energy Cooperative which was filed with the Commission on April 27, 2000 in companion Docket No. ER97-913-001. The settlements referenced the DOC in various respects. E.g., Ex. CY-28 at 9, Article II.B. (2), at 10, Article II.B. (4)(A), and at Article II. (C) at 11-12.

9. The settlements resolved the issues set for hearing concerning CY's 2000 estimated decommissioning costs. The settlements provided for an annual collection of \$16.7 million from September 2000 through June 2007, based upon a cost estimate of \$410.1 million in 2000 dollars (\$435.7 million in 2003 dollars, Ex. CY-1 at 3) for all remaining decommissioning activities after January 2000. The settlements required CY to file an update with the Commission no later than July 1, 2004, when the parties expected decommissioning would be complete. Ex. CY-28 at 11-12, ¶C. That required update is reflected by the current filed decommissioning cost estimate, Ex. CY-3, of which a portion of the costs and other charges are challenged in this proceeding.

10. The settlements also included provisions with regard to the cost of removing radiologically contaminated soil and asphalt within the CY plant site and, *inter alia*, capped those costs at \$12.6 million in 1996 dollars, as escalated. Ex. CY-28 at CY119184.

#### The DOC and the 2003 Decommissioning Estimate

11. On April 3, 1999, under a competitive bidding process, CY hired Bechtel as DOC to decommission and dismantle (D&D) the plant on a fixed-price, turnkey basis. Ex. CY-1 at 3. The DOC, Ex. CY-21, contemplated completion of major decommissioning activities and site restoration by June 30, 2004. In light of events that are discussed below, CY now anticipates completion of decommissioning by June 2007.

12. On June 13, 2003, CY sent Bechtel a notice of termination, Ex. CY-56, effective July 14, 2004, and CY assumed direct management of decommissioning. Ex. CY-20 at 38-9.

13. The 2003 Estimate projects total decommissioning costs in 2003 dollars of \$831.3 million for the period 2003 through 2023.<sup>6</sup> Ex. CY-14 at 11; Ex. CY-19 at 25. CY witness Garvey, the Decommissioning Projects Controls Manager, testified that by comparison to the 2000 Estimate, the 2003 Estimate represents an increase of \$395.6 million in 2003 dollars. Ex. CY-14 at 11. CY witness Bennet, former Vice President and Chief Financial Officer of CY, calculated *the increase* at \$395.6 million (the \$831.3 million 2003 Estimate minus the 2000 Estimate amount of \$435.7 million). Ex. CY-19 at

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<sup>6</sup> This figure also includes costs relating to spent nuclear fuel and greater-than Class C (GTCC) waste storage which are projected to extend through the year 2023. Transmittal Letter, p.3.

25. CTP witness Laros properly calculated the increase at \$396.6 million. Mr. Laros explained that CY witness Garvey's \$395.6 million estimate was based upon escalation factors available at the time which CY updated after the filing to reflect the corrected amount of \$396.6 million. Ex. CTP-1 at 11. Subsequently, Mr. Garvey updated his calculation to reflect an *increase* of \$396.6 million. Id.

14. Nature of CTP's Imprudence Allegation: To be perfectly clear, CTP witness Hildebrand, CTP's prudence witness, faults CY for being imprudent because of CY's failure to have taken decisive corrective action as early as October 2001 and no later than May 2002. Based upon CTP witness Hildebrand's conclusions with regard to imprudence, CTP witness Laros calculated the cost impact of CY's alleged imprudence as of May 2002. Ex. CTP-1 at 30-32; Tr. at 2227. Mr. Laros testified that \$215.5 to \$225.4 million in 2003 dollars represents a conservative estimate of the imprudent costs included in CY's 2003 Estimate. Mr. Laros recommends a disallowance of between \$224.7 and \$233.6 million in 2003 dollars to reflect the 2000 settlement agreement penalties. Ex. CTP-1 at 81. In light of my ultimate findings and conclusions that CY acted prudently in connection with the decommissioning schedule, it is unnecessary to address the propriety of Mr. Laros's recommended disallowance.

### **Prudence Standard**

15. In general, utility management is initially presumed to have acted prudently. West Ohio Gas Co. v. Public. Utils. Comm'n of Ohio, 294 U.S. 63, 73 (1935); Missouri ex rel. Southwestern Bell Tel. Co. v. Pub. Serv. Comm'n, 262 U.S. 276, 289 n.1 (1923); Trunkline LNG Co., 45 FERC ¶ 61,256 at 61,775 (1988); City of New Orleans v. Entergy Corp., 61 FERC ¶ 63,007 at 65,006 (1992), *aff'd sub nom. New Orleans v. FERC*, 67 F.3d 947 (D.C. Cir. 1995); Yankee Atomic Electric Company, 65 FERC ¶ 63,001 at 65,003 (1993), *aff'd in part*, 67 FERC ¶61,318 (1994). However, where a party in the proceeding creates a "serious doubt as to the prudence of an expenditure, then the applicant has the burden of dispelling those doubts and proving the questioned expenditure to have been prudent." Kentucky Utils. Co., 62 FERC ¶ 61,097 at 61,698 (1993). In New England Power Co., 31 FERC ¶ 61,047 at 61,084 (1985), *aff'd sub nom. Violet v. FERC*, 800 F.2d 280 (1st Cir. 1986), the Commission enunciated the following applicable prudence standard:

[W]e reiterate that managers of a utility have broad discretion in conducting their business affairs and in incurring costs necessary to provide services to their customers. In performing our duty to determine the prudence of specific costs, the appropriate test to be used is whether they are costs which a reasonable utility management (or that of another jurisdictional entity) would have made, in good faith, under the same circumstances, and at the relevant point in time. We note that while in hindsight it may be clear that a management decision was wrong, our task is to review the prudence of the utility's actions and the costs resulting therefrom based on the particular circumstances existing either at the time the

challenged costs were actually incurred, or the time the utility became committed to incur those expenses.

### **Positions of the Parties and Staff**

16. **CTP's Evidentiary Position on the Prudence Issues:** Essentially, CTP witness Hildebrand concluded that CY was imprudent for failing to take decisive or correction action as early as October 1, 2001 and no later than May 1, 2002<sup>7</sup> by (1) failing to identify and plan for critical decommissioning upsets and challenges at a time when they could have been reasonably addressed; (2) mismanaging administration of the Bechtel contract to permit disputes (e.g. groundwater) to fester without resolution; and (3) failing to take definitive corrective action (e.g. reassignment of work, termination) to address Bechtel's nonperformance at least by the first quarter of 2002. Mr. Hildebrand reasoned that "[a]lthough, CY should have taken action by mid-2001, it had to take action when strontium 90 was found in the groundwater and no later than when Bechtel reduced its work force. My conclusion is that CY should have taken decisive action by October 2001 and no later than the beginning of May 2002." Ex. CTP-16 at 128-129. According to Mr. Hildebrand, amidst a sea of indicators showing the deteriorating state of the decommissioning, CY attempted unsuccessfully to coerce and cajole Bechtel into changing its ways and complying with the contract. CY's mismanagement resulted in a project that is years overdue and hundreds of millions of dollars overrun. Ex. CTP-16 at 119-20, 129.

17. During cross-examination, CTP witness Laros clarified that his recommended total disallowance of from \$224.7 to \$233.6 million, Ex. CTP-1 at 5, reflects CY's imprudence as of May 2002, and not the earlier October 2001 to May 2002 period encompassed in Mr. Hildebrand's conclusions. Tr. at page 2227, 2228 ("Mr. Hildebrand's conclusions were from October '01 through May '02, so to be conservative, I took the end point and didn't take anything earlier than that in my evaluation.").

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<sup>7</sup> I note that there are several statements in CTP's trial brief that allege imprudence for periods *prior* to the October 2001-May 2002 period that were not advocated or supported by Mr. Hildebrand, are inconsistent with his and CTP witness Laros's recommendations, and, for these reasons, are beyond the record as made and not entitled to any probative value. Consequently, ad hoc recommendations on brief such as the following examples are not entitled to consideration: CTP argues that CY's "unreasonable conduct throughout the project's [DOC] phase (i.e. from 1999 through July 2003) ... increased costs unnecessarily and improperly. CTP RB at 1-2; and, with regard to scheduling, that "delays began by the end of 1999 ... CY imprudently continued to engage in an obviously ineffective course of dealing with Bechtel." CTP RB at 37.

18. **Bechtel's Evidentiary Position on the Prudence Issues:** Essentially, Bechtel argues that CY was imprudent: in connection with characterization and remediation of groundwater contamination at the site during the term of the DOC; administration of the DOC, including the resolution of disputes; failing to accept any of Bechtel's settlement proposals; failing to issue a DCO when an ACO could not be agreed upon; terminating the DOC at a time when performance by Bechtel was said to be less costly to CY than self-performance; and with regard to CY's current remediation of groundwater. Bechtel IB at 9-10, 13, 17, 41, and 126.

19. **Staff's Evidentiary Position on Issues Other Than Prudence:** Staff proffered evidence and sponsored expert witness testimony limited to stipulated issues B.2.<sup>8</sup> and C<sup>9</sup> Regarding issue B.2., Staff witness Radel recommends that CY use a 20-year GDP price deflator, rather than the 43-year GDP price deflator used by CY in its 2003 estimate in Ex. CY-3. Regarding issue C., Ms. Radel further recommends that that CY make filings (1) to true-up the decommissioning fund and reconcile all disbursements during the wind-up when D&D is complete, (2) within 6 months of the conclusion of pending state court litigation with Bechtel involving CY's alleged breach of contract and CY's counterclaim, to amend its formula to flow net proceeds through to the decommissioning fund if CY prevails, and (3) make additional filings and change its rate schedules to recognize other material changes, such as the result of CY's litigation with the U.S. Department of Energy and the D&D of the ISFSI. Staff PTB at 10, Ex. S.-1 at 6-7.

20. **Other Staff recommendations:** In its IB Staff makes several additional recommendations. Staff recommends that the rates which CY is permitted to collect should be based on the \$603.4 million in 2003 dollars supported by CY's witnesses, as adjusted to include *actual* (not estimated) costs for 2003, and, as mentioned above, escalated at the 2.38% rate recommended by Staff witness Radel. Staff IB at 93-4. Staff further recommends that CY should be required to file an annual FERC Form 1 for each year in which it collects revenues from its customers. *Id.* at 94. In its RB, CY argues that it is inappropriate and unnecessary to require it to file annual FERC Form 1's. CY RB at 103-104.

21. **Staff's Position on Brief on the Prudence Issues:** With regard to the stipulated prudence issues, A.1., 2., 3., 4., 5., and 6., Staff did **not** file a case-in-chief alleging that CY acted imprudently.

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<sup>8</sup> B.2. stipulates: What escalation rate should be applied to restate decommissioning costs estimated in 2003 dollars to current year dollars?

<sup>9</sup> C. stipulates: "Collection/Allocation of Costs", What future filings should CY be required to make?

22. At the hearing, Staff's cross-examination of key witnesses on the six prudence issues was extremely limited both in terms of the few witnesses it cross-examined on these subjects and the few inquiries it made of those few witnesses.
23. To be clear, Staff's cross-examination of CY witness Crowe was limited to a few questions concerning whether CY could be charged with interfering with Bechtel's work if it issued a DCO, Tr. at 506-09; contractual responsibility for contaminated groundwater, to which Staff agreed to pursue the matter with CY witness Heider, Tr. at 510; and when the CY Board of Directors first learned of Bechtel's inability to meet milestones. Tr. at 512.
24. CY witness Heider, the principal witness with regard to prudence issues, was cross-examined by the parties over a period of 7 days. Staff's cross-examination was limited to a few questions on day 7 that spanned Tr. 1887-1890 and sought clarification of the terms "rem" and "millirem" and an enunciation that while CY and Bechtel used a common mailing address at the project site, CY's executive offices were situated across the parking lot from Bechtel. Tr. at 1889.
25. Staff did *not* cross examine CY witness Lemley whose testimony, *inter alia*, concerned the risk which CY could encounter under the circumstances from restructuring of the DOC.
26. Staff's cross-examination of CY witness Bennet did *not* involve any of the stipulated prudence issues and was limited to clarification of the scope of the sought decommissioning costs, including the amounts paid to Bechtel. Tr. at 761-768.
27. Staff did *not* cross-examine CTP witness Hildebrand, the CTP witness who alleged that CY acted imprudently by failing to take decisive corrective action as early as October 2001 and no later than May 2002.
28. Staff did *not* seek cross-examination of Bechtel witness Reinsch, its CEO, Bechtel witness Heter, its Environmental Project manager, and Bechtel witness Adler. Staff's cross-examination of Bechtel witness Dr. Rubin consisted of a few questions seeking to clarify the point in time after July 2003 when Dr. Rubin believed that CY's current groundwater remediation efforts were imprudent. Tr. at 1974-1977.
29. In these respects, this is not a situation where less is more.
30. In its post-hearing initial brief, Staff argues that *based on the documents summarized in Appendices A, B, D, and E to its brief*, CY acted imprudently because a prudent utility manager in the same position as CY would have recognized much earlier that its management of the decommissioning schedule was not working and would have changed course. Staff IB at 7.

31. For example, Staff argues that based upon the documents in Appendix B, CY's approach to the groundwater problem from 1999 to 2003 reflects an imprudent effort to minimize sampling costs, Staff IB at 14; that, with regard to RPV cutting equipment problems discerned by CY in January 1999, CY should have exercised its rights under the DOC to require Bechtel to test the equipment and demonstrate it was capable of doing the job correctly, Staff IB at 58; and in terms of contract administration, it would have been reasonable for CY to have acted immediately in January 2002 when Bechtel staked out its position that groundwater contamination rendered its further work under the DOC impossible. Staff IB at 68. In general, and as concerns discrete allegations that CY did not act prudently in connection with the groundwater characterization and remediation program, that CY did not act prudently in connection with the segmentation of the RPV and RPV removal, and that CY did not act prudently in attempting to resolve contract disputes, Staff relies almost exclusively on the cited documents. Staff's explanation for the appropriateness of its reliance upon the documents is as follows: "These records show what the individuals involved were thinking, or at least writing at the time. The CY and Bechtel witnesses in this proceeding, which took place 2-5 years after the fact, are subject to the normal human tendency to remember past events in the light most favorable to oneself. Other witnesses are outside hired experts whose job it is to represent their clients' interests." Staff IB at 6.

32. As the Mock Turtle said to the Gryphon, this sounds like uncommon nonsense.<sup>10</sup> This crabbed approach and explanation overlooks and gives short shrift to the due process of law embodied in the procedures established for adjudication of the issues set for hearing on the record as made, including expert witness testimony under oath that is subject to the crucible of cross-examination to ensure that by law there is true and adequate disclosure of the facts.

33. Based upon Staff's review of documents, on brief, Staff questions, without more, whether CY provided necessary training for its workers on the job, suggests that the documents show CY did not affirmatively respond, and speculates that CY "seems to have given up." E.g., Staff IB at 44<sup>11</sup>, 48<sup>12</sup>, 53,<sup>13</sup> 54<sup>14</sup>.

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<sup>10</sup> Alice in Wonderland, Ch. X, The Lobster Quadrille.

<sup>11</sup> "Then apparently CY did nothing..."

<sup>12</sup> "It is not even clear from this response whether the workers who had two weeks of training on the first system were ever trained to use the replacement system."

<sup>13</sup> "The record doesn't show what the discussions were between CY and Bechtel personnel, or whether Bechtel really held off on the GTCC component cutting until the additional rigging and/or other safety measures were identified as it promised in its response"

<sup>14</sup> "CY saw the problems, told Bechtel to respond...but then seems to have given  
Footnote cont'd next page

34. In the end, Staff's crabbed approach proves too little even for Staff. With regard to stipulated issue A.4., **Whether CY acted prudently in connection with the spent fuel transfer to the ISFSI**, Staff concludes, "The documents in Appendix D do not present a clear enough picture for Staff to determine whether or not CY acted prudently." Staff IB at 58.

35. As discussed below, the record as a whole, which Staff has elected to overlook, warrants finding and concluding that on this issue and overall, CY acted prudently.

36. In its RB, CY argues that "Staff's attempt to add new positions and new issues to the case at the post-hearing briefing stage deprives Connecticut Yankee of the full and fair opportunity to respond that the Presiding Judge's orders protected." CY RB at 7. Accordingly, CY requests that the Presiding Judge should disregard those positions and issues advanced in Staff's brief that are not reflected in the JS (*i.e.*, everything other than the escalation rate issue). *Id.* at 7-8. In any event, CY argues that Staff's new-found positions on prudence issues are not supported by the record. *Id.* at 8.

37. The problem with Staff's extremely narrow and flawed approach to resolution of these prudence issues, *as far as Staff says it was able to determine*, is that the documents selected by Staff do not tell the entire story and do not demonstrate, by themselves whether the costs it has challenged are those which a prudent utility management would have made, in good faith, under all of the relevant circumstances and at the relevant point in time. *NEPCO, supra*, 31 FERC at 61,084. Nor does reliance on the cited documents provide the requisite careful evaluation of the risks and weighing of those risks against the potential benefits. *Kentucky Utilities Company*, 62 FERC ¶ 61,097 (1993). Had Staff filed a case-in-chief on the stipulated prudence issues, used the discovery process to maximum advantage, sponsored expert witness testimony in support of the recommendations it now makes that are based upon its selective document review, and/or cross-examined witnesses more fully, it might have proffered evidence that would permit a balanced and nuanced understanding of whether, under all the relevant circumstances and at the relevant time, CY acted as a reasonable utility manager. To paraphrase Gertrude Stein, the result of Staff's narrow and inappropriate analysis is that "there is no there, there."

38. **CY's Position:** Overall, CY maintains that based on the circumstances at the time it acted prudently to manage the decommissioning schedule and appropriately terminated the DOC effective July 14, 2003; that its ongoing decommissioning program is prudent; and that its 2003 decommissioning estimate is appropriate. CY recommends a 43-year GDP price inflator or escalator in connection with its 2003 estimate, rather than Staff's proposed 20-year GDP price inflator. At the pre-hearing stage, CY agreed with *most* of the future filings proposed by Staff witness Radel. In the event that it was found to have

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up."

acted imprudently, CY then argued that in lieu of refunds, disallowed costs should be made through rate change adjustments to *prospective* decommissioning charges. FJS at page 12; Ex. CY-66 at 9-15. However, in its post-trial IB relative to issue C.2., CY plainly stipulates its agreement with Staff witness Radel's recommendations. CY plainly states that it "does not object to such a requirement" (that "CY be required to make filings with the commission in the future to reflect the outcome of the ongoing litigation with Bechtel, and to reconcile its actual decommissioning costs with the 2003 Estimate.") CY IB at 141.

#### Discussion, Findings and Conclusions on the Stipulated Issues

#### **39. A. Prudence of Decommissioning: 1. Did CY act prudently in connection with the decommissioning schedule?**

40. **Finding:** The short answer to this issue is yes. On the record as made and, on balance, the proponents have failed to adduce evidence which casts a serious doubt that CY acted imprudently during the periods at issue and imprudently incurred decommissioning costs. Even if this was not the case, the record establishes that CY was not imprudent in connection with the decommissioning schedule and that its actions and resulting costs in light of all of the circumstances existing during the period at issue were not imprudent. In this respect, CY has demonstrated that its actions at issue were those of a reasonable utility management, made in good faith, under the same circumstances and at the time were prudent. The prudence of CY's actions is best addressed by discussion of the more specific stipulated issues under A.2. through A.5. which are subsumed by this issue.

41. To be clear, with regard to CTP's evidentiary case-in-chief, CTP witness Hildebrand does not claim that CY's execution of the DOC was imprudent. Tr. at 1987-88. ("I do not think it was imprudent for [CY] to enter into that DOC in 1999.") In general, Mr. Hildebrand believed that CY was imprudent as early as October 2001 and not later than May 2002 because of its failure to take decisive or corrective action. Tr. at 1998. To put this view in perspective, Mr. Hildebrand recognized that, "In any decommissioning project there are going to be delays. There are going to be upsets. There are going to be problems." Tr. at 1993. He recognized "that CY's imprudence would depend highly on the circumstances in which the DOC [Bechtel] was responsible for and when [CY] or the owner was able to take action." Tr. at 1995.

42. CTP witness Hildebrand agreed that CY would have to take into consideration the "costs, risks, benefits, circumstances, any number of different elements." Tr. at 1997-1998. He did not sponsor such an analysis in this record. Mr. Hildebrand also agreed that he had not done an analysis of the costs, benefits, and risks that may or may not have arisen on either CY's or Bechtel's behalf concerning CY's issuance of a DCO to

Bechtel to perform structural D&D work using targeted DCGLs<sup>15</sup> by no later than May 2002. Tr. at 2017-2018.<sup>16</sup>

43. Mr. Hildebrand agreed that the circumstances confronting CY by October 2001 and no later than May 2002 included “Bechtel’s missed milestones, the slippage in Bechtel’s performance relative to its schedule, and Bechtel’s considerable concern by October 30, 2001 and its decision on January 10, 2002 to refrain from doing D&D<sup>17</sup> work and reduce its work force because of groundwater contamination by radionuclides, including Strontium 90 (sr-90). Tr. at 1998.

44. CTP witness Laros used May 2002 as the “decisive action” date to quantify the cost of the imprudence determined by CTP witness Hildebrand. Ex. CTP-1 at 31, 48. Mr. Laros concluded that \$215.5 to \$227.4 million (in 2003 dollars) of the requested increase represented a conservative estimate of the imprudent costs included in CY’s 2003 estimate. As adjusted for penalty provisions included in the 2000 settlement, Mr. Laros recommended a total disallowance of between \$224.7 and \$233.6 million (in 2003 dollars). Ex. CTP-1 at 48, 81.

45. For the reasons discussed below, in general, I find and conclude that CY overall, and on balance, acted prudently in connection with the decommissioning schedule and that its actions and resulting costs in light of all of the circumstances existing during the periods at issue were prudent.

46. **A.2. Did CY act prudently in connection with the groundwater characterization and remediation program?**

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<sup>15</sup> Derived Contribution Guideline Levels (DCGLs) are field calculations that are used to determine whether the contamination levels of concrete, soil, and groundwater are sufficiently low to meet the radioactive dose level required for Unrestricted Release.

<sup>16</sup> He was asked: “It’s true, isn’t it, ... you conducted no analysis of the costs to [CY] of issuing a [DOC] to Bechtel to perform the structural D&D work using targeted DCGL’s by no later than May 2002?” He answered: “That’s correct.” He also was asked: “Did you conduct any analysis to perform structural D&D work using targeted DCGL’s, including all the preparatory work that it needed to do in order to perform that structural D&D work?” He answered “I did not.” Tr. at 2018.

<sup>17</sup> Mr. Hildebrand defined D&D this way: “the proper term is structural D&D, and it really refers to the decontamination or demolition or dismantlement of those facilities following decontamination. The decontamination strictly is a matter of cleaning up contamination from concrete surfaces.” Tr. at 2000, 2001; see also Ex. CTP-17 at 1.

47. **Finding:** Yes. CY acted prudently in connection with the groundwater characterization and remediation program during the decommissioning period at issue in this proceeding.

48. Certain matters relating to groundwater that occurred before CY and Bechtel signed the DOC on April 3, 1999 are worth mentioning.<sup>18</sup> In early 1998 and early 1999, CY installed a network of groundwater monitoring wells for the purpose of determining the extent of contaminated groundwater at the CY plant site. The monitoring wells were installed at the request of the Connecticut Department of Environmental Protection (CTDEP or DEP) and in accordance with a CTDEP-approved monitoring plan. Historical operations of the facility and measurements taken of water routinely pumped from the Containment Building mat sump indicated the presence of plant-related radioactivity in the groundwater. CY obtained the first groundwater samples from the newly installed monitoring well in March 1999 and April 1999. The results were analyzed for radionuclides in accordance with the plan agreed upon with the CTDEP. The agreed upon analyses did not include hard-to-detect radionuclides (HTDs) such as sr-90. Ex. CY-20 at 22.

49. During the Request for Proposal (RFP) period<sup>19</sup> CY made available to Bechtel the Nuclear Regulatory Commission (NRC) Historical Assessment which reflected the existence of contaminated groundwater. Ex. CY-19 at 14. The NRC report stated that, “Operation of the Haddam Neck facility resulted in various spills, leaks, and unplanned effluent release of radioactive materials.” Ex. CY-26 at CY119092. The existence of contaminated groundwater at the project site also was discussed in public documents, including the initial decision in Connecticut Yankee Atomic Power Company, 84 FERC ¶ 63,009 (1998), in which the Administrative Law Judge noted that during the operation of the plant, radioactive contaminants were dispersed to nearby soil, asphalt, and groundwater. Ex. CY-19 at 14. On brief, CTP stated that the Haddam Neck Site had an “infamous history of radioactive contamination leaks to the soil and groundwater.” CTP IB at p. 48.

50. On November 23, 1998, during the RFP period, CY offered Bechtel the opportunity to identify additional characterization of the Haddam Neck site that would be

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<sup>18</sup> The events that led up to the signing of this contract and the key elements of the agreement are more extensively covered under issues A.5. and A.6. of this decision which deal with contract administration. Only the portions of the contract that are relevant to the issue of groundwater characterization and remediation will be discussed in this section.

<sup>19</sup> The RFP period was the time during which prospective bidders familiarized themselves with the Haddam Neck Plant site prior to submitting a proposal for the decommissioning work.

“meaningful” to Bechtel in forming its proposal. Ex. CY-23. On December 3, 1998, Bechtel sent a letter to CY declining this opportunity, stating that, “*we are confident that we have sufficient information*” and “*we do not need any additional sampling of the site performed to clarify our proposal.*” Ex. CY-24 [*emphasis added*].

51. The RFP “Instructions to Bidders” made it clear that groundwater remediation was included within the DOC’s turnkey responsibility. The first page of the “Instructions to Bidders” specified that the DOC would be expected to perform “Decommissioning,” which was defined to include: “without limitation, all activities necessary to achieve Unrestricted Release of the Site, except for such licenses or restrictions as may be required for the interim storage of spent nuclear fuel. These activities include, without limitation...remediation...of all radioactive, hazardous and mixed wastes, materials, fluids, soils...at the Site.” Ex. CY-22 at CY119067; Ex. CY-68 at 2.

52. The RFP “Instructions to Bidders” further provided, “Submission of an executed proposal in response to this RFP shall be deemed to be a certification” by the bidder to “have satisfied [itself] regarding...[t]he conditions affecting the work, including, but not limited to, all federal, state and local regulatory requirements, physical conditions, radiological conditions and hazardous conditions of the Site which may bear upon access, egress, management and handling and storage of material, equipment and tools that may affect performance of the Work” and “[t]he character, quantity and location of all materials, contamination, obstacles, equipment and facilities to be encountered during the execution of the Work. Failure by the contractor to acquaint itself with the available information will not relieve it from the responsibility for properly estimating the difficulty or cost of successfully performing the Work.” Ex. CY-22 at CY119076.

53. That Bechtel understood groundwater remediation to be included within the DOC’s turnkey responsibility is evidenced by its November 25, 1998 request to CY to provide it with a number of documents, including the NRC Historical Review Team Report, data from other sampling events including unplanned releases from the refueling water storage tank (RWST), storm drain effluent flowing into the discharge canal, and other samples of discharge monitoring reports. Ex. CY-74; Ex. CY-68 at 4.

54. Bechtel’s knowledge that CY intended for groundwater remediation to be included in the RFP is further evidenced by Bechtel’s first proposal and CY’s subsequent response. Bechtel’s first proposal excluded remediation of contaminated groundwater from its contractual responsibility. Ex. CY-20 at 23. After negotiations with CY, Bechtel revised its proposal to include responsibility for contaminated groundwater in its contract work. *Id.* In its amended proposal, Bechtel committed to complete groundwater characterization within six months of the contract award so that the extent of contamination and its possible impact on the work could be determined and so that Bechtel would be positioned to develop solutions for groundwater remediation cooperatively with CY. *Id.*; Ex. CY-44 at CY118819.

55. In Bechtel's final proposal, submitted on March 22, 1999, Bechtel represented to CY that Bechtel would perform early testing (within six months of Contract Award) of groundwater in the vicinity of the power block to characterize contamination. Ex. CY-19 at 14. The proposal stated that, from the data it obtained through this characterization testing, Bechtel would be positioned to develop solutions for groundwater remediation. Ex. CY-44 at 118819.

56. CY entered into the DOC with Bechtel on April 3, 1999. Section 2.1 of the Contract defined Bechtel's scope of work and responsibilities as being "on a Turnkey basis, to complete the Work." Ex. CY-21 at CY0001380; Ex. CY-19 at 16. Section 2.1 limited Bechtel's responsibility by stating, "Contractor's responsibility for remediation of Groundwater shall terminate at the conclusion of Contractor's warranty period under this Contract." Ex. CY-21 at CY0001381. "Work" is defined in Section 1.12 to include "[a]ll activities necessary to comply with Contract requirements and to achieve Unrestricted Release". Ex. CY-21 at CY0001377; Ex. CY 19 at 16. "Unrestricted Release" (UR) is defined in Section 1.37 to include "final approval by all... federal and state agencies having jurisdiction necessary to allow public access to the Site." Ex. CY-21 at CY0001380; Ex. CY-19 at 16.

57. In this latter respect, I note that the NRC's numeric standard for unrestricted release from residual radioactivity above background from all media, including groundwater, is 25 mrem/yr *or less*. Under the DOC, CY exercised an option to require Bechtel to use a sitewide standard of 10 mrem/yr for all media. Ex. BPC-3 at 3-4.

58. CY witness Bennet testified that "[t]he inclusion of the remediation of contaminated groundwater within these broad definitions is evident from the fact that, after broadly defining the DOC's [Bechtel] responsibility to complete the Work on a Turnkey basis, Section 2.1 goes on to [limit that responsibility with respect to the warranty period for groundwater]." Ex. CY-19 at 16-17. He points out, and I agree, that "[i]f groundwater remediation were not part of the DOC's turnkey responsibility, there would have been no need to limit that responsibility in this way." Ex. CY-19 at 17.

59. Sections 4.1 and 4.1.2 of the DOC provided the terms for dealing with the pricing and schedule impacts of groundwater remediation. Section 4.1 sets out the basic fixed price arrangements before stating, "provided that the parties agree that the following items of Work shall be treated as Agreed Changes or Directed Changes, as applicable, with respect to cost and schedule". Ex. CY-21 at CY0001386. Section 4.1.2 lists "[r]emediation, storage, transportation, disposal, and directly related services associated with contaminated Groundwater at the Site" as items to be treated as Agreed Changes or Directed Changes with respect to cost and schedule. CY witness Bennet testified that under these provisions, Bechtel remained responsible for remediation of contaminated groundwater (as part of their turnkey responsibility), but CY would pay for the cost and schedule impacts of groundwater as an addition to the fixed price specified in the DOC. Ex. CY-19 at 17. In this sense, the costs and schedule impacts of groundwater

remediation were *outside* the fixed-price scope of the work, yet the responsibility to remediate groundwater was *within* Bechtel's turnkey responsibility to achieve Unrestricted Release.

60. Bechtel witness Taylor was involved in drafting the original version of the License Termination Plan (LTP) which CY submitted to the NRC. In particular, he drafted section 6 of both versions which established the radiological release criteria. Ex. BPC-1 at 3. Mr. Taylor testified that it was Bechtel's responsibility, as the turnkey contractor, to decide what site characterization would be pursued at the Haddam Neck Plant site. Tr. at 1313. Bechtel witness Heter was its Environmental Manager at the project site from June 2000 to July 2003. Ex. BPC-3 at 2. Mr. Heter testified that it was his understanding that "Bechtel's ultimate responsibility [under the DOC] was the unrestricted release of the [CY] license from the NRC" and "[a] component of accomplishing that was groundwater...so under that...Bechtel would be responsible for meeting the sitewide NRC dose closure requirement...[s]ubject to change order and authorization on the part of [CY]." Tr. at 2194. Mr. Heter testified that "the unrestricted release portion of the contract required Bechtel to meet the NRC requirement of 25 millirem in addition [to] the contract requirement of 10 millirem. In order to do that, Bechtel needed to develop an understanding of the contaminated groundwater, the sources of contamination, i.e., characterization and whether it was related to contaminated groundwater or not. The overarching requirement of 10 millirem and the need to understand that was counterbalanced by the contaminated groundwater issue which was required to be performed under a change order." *Id.* at 2196-2197.

61. In March and April of 1999, Malcolm Pirnie, Inc., an environmental consulting company hired by CY, performed two rounds of groundwater analyses. Ex. CTP-73 at CY0002846-47. In June of 1999, the results of the study showed concentrations of cesium 137 (a radioactive fission product), tritium (a radioactive hydrogen isotope), and boron (a non-radiological contaminant) in the groundwater. *Id.* at CY0002848. Additionally, elevated levels of beta radioactivity were noted in three groundwater monitoring wells. *Id.* at CY0002886. Beta emitters include both naturally occurring radionuclides as well as plant generated fission products. The study results were provided to Bechtel in June of 1999. Tr. at 1235-36. Bechtel did not identify any objection to the Pirnie report. Bechtel indicated that after initial characterization it might be feasible to reduce the number of monitoring wells. Ex. CY-20 at 24; Ex. CY-45.

62. CY witness Heider, the current Vice President of CY who was responsible for oversight of Bechtel's performance and contract administration during the time periods at issue, testified that Bechtel never implemented the groundwater characterization to which it committed in its RFP proposal. Ex. CY-20 at 24.

63. On April 4, 2000, Bechtel first notified CY of its position that work associated with contaminated groundwater was not within its work under the Contract, and would only be performed if directed by CY through change orders. Bechtel stated that "[i]n

accordance with the provisions of 4.1 of the Contract, the parties agreed that certain items of Work shall be treated as Agreed Changes or Directed Changes. One of the items was the remediation, storage, transportation, disposal, and directly related services associated with contaminated Groundwater at the Site ... [u]nder the provisions of the Contract, contaminated groundwater constitutes a change. Since these activities can not be quantified to allow a firm fixed price, Bechtel will proceed on a time and material basis with cost accumulation in accordance with the instructions in the Contract for all activities associated with groundwater.” Ex. CTP-84 at CY0003456.

64. As noted earlier, in a letter dated April 20, 2000, CY responded to Bechtel’s April 4, 2000 letter by saying, “[g]roundwater characterization and monitoring activities are not included in the provisions of Contract section 4.1.2 referenced in your letter. Section 4.1.2 applies to remediation and subsequent activities of storage, transportation, and disposal inclusive of services directly related to those activities. Groundwater characterization and monitoring are included in the Site Characterization Plan and Environmental Control Plan of the Contract base work scope and therefore are included in the firm, fixed price of the Contract... [i]t also should be noted that the existence of Groundwater contamination is not a recently identified condition. The “Ground Water Monitoring Report” transmitted to Bechtel last fall... further evaluated the conditions based on the data from recently installed monitoring wells.” Ex. CTP-85 at CY0004028-29.

65. In a letter dated August 16, 2000, Bechtel responded to CY’s April 20, 2000 letter stating, “[p]rovisions in Contract section 4.1 clearly allows [sic] for related services associated with contaminated groundwater at the site to be treated as an agreed change or directed change. To date, the groundwater services we have performed are directly related to services associated with contaminated groundwater at the site. We disagree with CY’s interpretation of the contract wording in the referenced letter.” Ex. CTP-179 at CY0003759 (emphasis in original). It further states: “It is quite clear in meetings with CY personnel and the state of Connecticut, that all the monitoring and sampling of groundwater currently ongoing is as a direct result of the contaminated groundwater issue.” Id. at CY0003760. The letter concludes, “In accordance with Section 2.2 of the Contract, Bechtel will not proceed with any more work associated with contaminated groundwater without prior written authorization from CY.” Id.

66. On September 13, 2000 a meeting was held between representatives from CY, Bechtel, the CTDEP, and the NRC. The details of this meeting were prepared on September 14, 2000 and are contained in a memo at Ex. CTP-90. The memo reflects that the purpose of the meeting was to “present and discuss the historical and most recent contaminated ground water analytical results”. Ex. CTP-90. The memo states that the “tritium contaminated ground water remains as a cause for concern with the [CT]DEP and NRC. However, they [CTDEP and NRC] did agree with CY’s presentation of the data that indicated the tritium concentrations have been going down over time.” Id. The

memo indicates that Marie Miller, the representative for the NRC, asked where and when CY has looked for other plant specific radionuclides in groundwater. Richard Sexton, the CY representative at the meeting, responded that “they were never really looked for, there is no need.” Id. To which, Ms. Miller responded that “she thought it would be a good idea.” Id.

67. In a letter dated September 26, 2000, CY responded to Bechtel’s August 16, 2000 letter by stating, “[a]lthough clearly part of Bechtel’s scope of Work under the Contract, we understand and agree the cost and schedule of Groundwater “remediation” is subject to additional compensation in accordance with section 4.1.2. Our current disagreement concerns whether recent Groundwater activities are subject to that provision and additional compensation is due Bechtel. Since Bechtel must continue work efforts in support of regulatory submittals and project planning regarding Groundwater issues, CY hereby agrees those efforts do not jeopardize any claim by Bechtel for compensation under section 4.1.2 of the Contract. We expect continued efforts to resolve our disagreement and that Bechtel maintains an appropriate record of costs.” Ex. CTP-153 at CY0004030.

68. On February 27, 2001, CY and Bechtel held a meeting to discuss commercial issues. One of the topics of discussion was groundwater. The notes from that meeting relating to the groundwater discussion state that CY (Heider) “presented a simplified process/criteria for issue resolution” under which “Bechtel would provide annual sampling and CY would be responsible for any additional sampling.” Ex. CTP-88 at CY150782. The notes further state that Rick Flathers of Bechtel, who was in attendance, “indicated the estimate would be complete today.” Id.

69. In a letter dated April 9, 2001, CY stated that from the ongoing discussions regarding groundwater monitoring and remediation issues CY was “under the impression that a conceptual framework [regarding groundwater] was defined between Bechtel and CY on or about February 7, 2001.” Ex. CY-46 at CY11837. However CY stated that, “Bechtel has, in more than one conversation, implied that such a framework has not been defined and that no Groundwater work is proceeding.” Id. CY explained that “the purpose of this letter is to eliminate the apparent confusion regarding the status of Groundwater issue(s).” CY continued by providing several explanatory points regarding Bechtel’s scope of work and compensation under the DOC. Regarding groundwater, CY said: “Exhibit A and paragraphs 2.1 and 2.4 of the Agreement establish that groundwater activities associated with Decommissioning and with Final Acceptance are a part of the Work that Bechtel is responsible for performing. Section 6.1.12 of Exhibit A specifically requires the monitoring of wells identified to the [CT]DEP be included in Bechtel’s Construction Environmental Control Plan. Recent comments from Bechtel to the effect that Bechtel is not performing Groundwater work are therefore neither appropriate nor acceptable.” Id.

70. Regarding compensation, CY said: “Paragraph 4, including item 4.1.2 of the Agreement establishes that certain Groundwater remediation activities associated with Decommissioning and with final Acceptance are appropriate subjects for changes to compensation. CY continues to stand ready to work with Bechtel to implement the conceptual framework previously agreed to, with whatever further definition the parties may require, and thereby to assure that Bechtel is fairly and reasonably compensated in accordance with the provisions of paragraph 4.1.2. In this regard, permit us to point out that Bechtel has not yet submitted cost information in support of a claim for additional compensation associated with this conceptual framework.” Id. at CY118837-38. CY concluded its letter by saying, “Bechtel is authorized to perform Groundwater Work.” Id. at CY118838.

71. CY and Bechtel next addressed groundwater in an April 10, 2001 letter from CY to Bechtel. The letter informed Bechtel that CY had “engaged the services of Malcolm [Pirnie] to perform certain, time sensitive, groundwater data evaluation services in support of a Connecticut Department of Environmental Protection regulatory request that Bechtel has refused to perform.” Ex. CTP-94 at CY0004033. CY explained that it was “forced to take this action in order to mitigate potential costs and damages accruing from Bechtel’s refusal to perform these services as required under the Agreement.” Id. CY continued to say that “performance of groundwater related services under the DOC is part of Bechtel’s turnkey responsibility. The April 9<sup>th</sup> letter made it clear that the compensation aspect of groundwater services...is a matter which CY is ready to discuss however, to date, Bechtel has not provided the necessary cost information.” Id.

72. On April 30, 2001, Bechtel submitted to CY its DOC Monthly Report for February 2001. Under the heading “Problem Areas/Issues” Bechtel stated, “Contractual agreement on issues associated with contaminated groundwater monitoring continue to impinge upon the timely start of work. The issue is important to successful completion of the project, since some of the associated activities impact final site release and ability to terminate the NRC license. Many of the associated activities require long-time sampling and monitoring efforts. Resolution on the contractual issues associated with contaminated ground water issue is urgently needed.” Ex. CTP-154 at CY0007874.

73. On May 2, 2001, CY signed ACO 01-02. Bechtel signed the same ACO on May 7, 2001. ACO 01-02 stated that Bechtel would be paid an additional \$6,000 to “[p]rovide necessary engineering, licensing, and other technical support to CY for the review of a Groundwater Characterization Work Plan as requested by the CY Site Manager.” Ex. CY-21 at CY0001651.

74. In a May 10, 2001 letter to CY, Bechtel outlined the elements of the groundwater plan developed during discussions on April 27, 2001 between CY and Bechtel. Bechtel listed the elements as: “1) Bechtel to review the Malcolm Pirnie Groundwater Work Plan. The funding necessary to accomplish this activity would be by an Agreed Change Order (ACO). The ACO 01-02 has been issued and this activity is ongoing. 2) Bechtel

committed to monitoring 39 wells on an annual basis at Bechtel's cost until such time as these wells are determined to be contaminated. Once the wells are determined to be contaminated, compensation will be considered under contract provision 4.1.2.

3) Bechtel and CY agreed that Bechtel would develop a 'Ground Monitoring Program Scope' document. Bechtel has completed that activity and on May 7, 2001 met with Dick Sexton, Rich McGrath, and Gerry van Noordennon and discussed the preliminary draft. The enclosed draft document reflects the results of those discussions and agreement on the technical content of the monitoring program. Bechtel is prepared to discuss the scope with you and establish a next step in this important program, at your convenience. It was agreed to by both parties at the senior management meeting that Bechtel will proceed on a time and materials basis pursuant to an Agreed or Direct Change Order. Eechtel (sic) awaits your Change Order or alternate instructions." Ex. CY-93.

75. On June 6, 2001, CY issued DCO 01-04 to Bechtel to analyze and detect HTD radionuclides, including sr-90, in the next round of groundwater sampling. Ex. CY-20 at 25; Ex. CY-59. CY directed Bechtel to test for HTD radionuclides (including sr-90) as a result of discussions with the NRC and CTDEP regarding the LTP and groundwater monitoring plan approvals. Ex. CY-20 at 26.

76. On August 20, 2001, laboratory data were received indicating the presence of sr-90 in the groundwater. Ex. CTP-91 at CY140545. Reanalyses were performed to confirm the presence of sr-90. On October 15, 2001, Bechtel officially submitted the monitoring report to CY and noted detectable levels of sr-90 in three wells and the Mat Sump, and technetium 99 (another fission product) in one well. Ex. CTP-95 at CY0004102-03. Only one well showed concentrations of sr-90 above the EPA Maximum Concentration Level (MCL) of 8 picoCuries per litre (pCi/L) - i.e., 138 pCi/L<sup>20</sup> in well 105S- the same well down-gradient from the RWST where the 1999 monitoring program identified elevated gross beta levels. Ex. CTP-16 at 54.

77. CY requested confirmation of the sr-90 result from the one monitoring well with a high sr-90 concentration. Ex. CY-20 at 27. After the presence of sr-90 was confirmed, CY issued ACO 01-06<sup>21</sup> and 01-07 dated September 27, 2001 and November 27, 2001 respectively. Those authorized payments for additional groundwater monitoring and Bechtel's costs of project management and other miscellaneous activities directly related

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<sup>20</sup> To convert radioactivity (pCi/L) to dose (mrem), RESRAD ("RESidual RADioactivity") codes, developed by Argonne National Laboratory are widely used and accepted for this purpose. BPC-1 at 4-5.

<sup>21</sup> ACO 01-06 was originally issued as DCO 01-06, dated September 27, 2001, but later was converted to ACO 01-06 by a letter dated October 21, 2001 (CY-46). Tr. at 1408-1410; Ex. BPC-11.

to contaminated groundwater. *Id.* ACO 01-06 provided that Bechtel would be compensated for 3 quarterly rounds of groundwater monitoring well sampling and analysis including HTDs. Tr. at 1408-1409. ACO 01-07 expanded the HTD analysis from nine to 19 wells. *Id.* at 1410. CY witness Heider stated that CY's purpose in issuing these change orders was to assure that comprehensive groundwater work could proceed without delay. Ex. CY-20 at 27. Mr. Heider stated that CY was trying "to get our arms around the [sr-90]" by "beginning to do some planning associated with how to identify where the [sr-90] was on-site and how to incorporate it into the work activities with Bechtel." Tr. at 1398.

78. On January 10, 2002, Bechtel took the position that the presence of elevated levels of sr-90 in a single well constituted widespread and "unremediated" sr-90 contamination and made it impossible for Bechtel to achieve the Contract Unrestricted Release limit of 10, the NRC limit of 25, or to finalize DCGLs consistent with unrestricted release of the site. Ex. BPC-62 at 2. These limits were needed to proceed with significant portions of the remaining D&D and final survey work. Ex. CY-20 at 28. Bechtel stated that "the presence of [sr-90] groundwater contamination is an extremely serious problem that threatens to invalidate all of the assumptions and plans underlying the effort to achieve Unrestricted Release of the site in accordance with an approved License Termination Plan." Ex. CY-48 at 118858; Ex. BPC-62 at 1. Bechtel also took the position that it was impossible to proceed with much of the remaining work, and as a result, Bechtel would reduce its workforce. *Id.* at CY118859. At the hearing, CY witness Heider described Bechtel's position as "hyperbolic" and "completely unsupported by any information that we had at the time." Tr. at 1396.

79. CTP witness Hildebrand testified that, "[a] prudent manager would have monitored and characterized the groundwater long before pursuing a DOC. Such action would have provided a more accurate RFP and a more realistic assessment of site conditions upon which to prepare estimates."<sup>22</sup> Ex. CTP-16 at 58.

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<sup>22</sup> Mr. Hildebrand asserted that CY was imprudent in not characterizing groundwater *before* the RFP. As noted, in cross-examination he clarified his testimony and recognized this was not at issue as it was not in the October 2001-May 2002 timeframe. CY witness Bennet testified that, "there was nothing 'inaccurate' about the Request for Proposal (RFP) that CY issued. The RFP, including the draft DOC, made it clear to Bechtel and other prospective DOC bidders that the Work under the DOC would include remediating any contaminated groundwater so that the required contractual end state of "Unrestricted Release" [UR] could be achieved. This was made clear on the first page of the "Instructions to Bidders," which specified that the DOC would be expected to perform "Decommissioning," which was defined to include: "without limitation, all activities necessary to achieve UR of the site, except for such licenses or restrictions as

Footnote cont'd next page

80. To be abundantly clear, at the hearing Mr. Hildebrand conceded that CTP was not claiming that CY's execution of the contract on April 3, 1999 was imprudent. Tr. at 1987-1988. Mr. Hildebrand reiterated that it was CTP's position that CY should have taken decisive corrective action as early as October 2001 and no later than the beginning of May 2002. Tr. at 1998; Ex. CTP-16 at 9. CTP witness Laros sought to quantify CY's imprudence as of May 2002. Ex. CTP-1 at 30-32; Tr. at 2227.

81. On January 29, 2002, CY requested that by February 15, 2002, Bechtel provide its plans and associated schedules for characterization of the sr-90 that was potentially contributing to groundwater contamination. CY stated that "characterization activities...are needed to develop strategies to understand the extent of [sr-90] on site and to achieve the Unrestricted Release required by our agreement." Ex. CY-50 at CY118865. CY acknowledged that "discussions may be needed to determine the extent of Bechtel's characterization Work that should be compensated under the provisions of Section 4.1.2" and that CY "is ready and willing to discuss with Bechtel potential approaches for more accurately predicting the groundwater contribution to the overall site release criteria." Id. at 118865-66. In this respect, CY witness Heider testified that one of the purposes of the January 29, 2002 letter to Bechtel was to convey the need to understand "where sr-90 was going, where it would end up on-site" and, in order to do that, "it was necessary to understand the horizontal and vertical distributions of the contaminants." Tr. at 1428.

82. On February 11, 2002, Bechtel responded that CY's January 29 response "fail[ed] to acknowledge the seriousness of the contamination, its profound impact on Bechtel's ability to perform portions of the work, and its fundamental inconsistency with the CY-supplied site characterization information upon which Bechtel based its bid and agreed to the terms of the Contract." Ex. CY-49 at 118860. Bechtel stated further that "it is impossible to determine the DCGLs that are a prerequisite to the performance of the restrained D&D work" and "the portions of the D&D work that require finalized DCGLs as a prerequisite will come to a full stop while...a prolonged effort is undertaken to bound the scope of CY's groundwater contamination problem." Id. at 118861. Bechtel stated that "[t]he fundamental bases of the Contract are now seriously undermined" and "no justification for maintaining the current work force levels at the site" exists. Id.

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may be required for the interim storage of spent nuclear fuel. These activities include, without limitation...remediation...of all radioactive, hazardous and mixed wastes, materials, fluids, soils...at the site." Ex. CY-22 at CY119067. There could be no basis for confusion that groundwater work was within the DOC's turnkey responsibility." Ex. CY-68 at 2. In any event, as noted above, Mr. Hildebrand's allegations of CY imprudence are limited to CY's failure to not take decisive action as early as October 2001 and no later than May 2002.

Bechtel concluded with a request for “CY to meet with [Bechtel] to restructure the Contract in a way that makes sense and comports with reality.” Id. at 118863.

83. CY witness Heider testified that Bechtel failed to produce a plan for the characterization of the sources contributing to groundwater despite CY’s direction to Bechtel to provide such a plan. Ex. CY-20 at 29. On February 25, 2002, Bechtel provided what it claimed was such a plan, but, in fact, this was only a “table of contents” summary of the contents of a characterization and remediation plan. Id.; Ex. CY-63 at 47; Ex. CY-94. CY witness Lemley described it as “a laundry list, a several-page list of various steps that would be taken in an effort to characterize the extent of the groundwater contamination” with “no costs connected to it.” Tr. at 1149. I agree.

84. Mr. Heider stated his belief that the submission of this plan was an attempt by Bechtel to get CY to direct it on how it was to proceed with this plan as well as all work associated with the cleanup of groundwater contamination. Ex. CY-63 at 47. CY believed that giving such direction to Bechtel was not only inconsistent with Bechtel’s turnkey responsibilities but also would place unwarranted risks of contract interference claims from Bechtel on CY. Id.

85. Bechtel witness Taylor testified that, to his knowledge, Bechtel *never* provided CY with a report that discussed the possible sources of radionuclides and contaminants entering the groundwater and *never* presented recommendations of the possible needs for remediation and methods of remediation. Tr. at 1317-1318. Bechtel witness Heter testified that the “table of contents” described by CY witness Heider was actually compiled and submitted after CY requested that Bechtel prepare a “punch list of items” that would be incorporated into a plan to bound sr-90 in the groundwater. Tr. at 2205-2206. However, Mr. Heter later conceded that Bechtel *never* provided a schedule and cost estimate for the plan to bound sr-90 in the groundwater which it submitted to CY on February 25, 2002. Id.

86. On June 13, 2002 CY presented Bechtel with a proposal to revise the contract dose limit and methodology. Ex. CY-52. CY acknowledged Bechtel’s belief that it was “restrained” in proceeding with decontamination and other related activities and stated that it was “interested in discussing options that would assist Bechtel in proceeding with the Work in accordance with its Turnkey responsibilities ultimately achieving timely Final Acceptance.” Id. at 118869. CY proposed an accommodation that increased the Unrestricted Release requirements to achieve Final Acceptance from 10 to 19, with 9 reserved for existing groundwater residual activity. CY stated that this proposal was “intended to advance settlement discussions and [was] not intended to modify the Contract in whole or in part.” Id. This basic approach came to be known as the “targeted DCGL approach.” Ex. CY-63 at 48-49.

87. CY witness Heider stated that this proposal left in place the DOC provision under which CY was responsible for any cost or schedule impacts caused by Bechtel’s work to

remediate contaminated groundwater, while allowing Bechtel to go forward with the D&D of these structures with a targeted decontamination standard based upon the full DOC dose limit. *Id.* at 49. In this way, Mr. Heider stated that Bechtel could proceed with structure decontamination and groundwater remediation work with no basis for concern that its ability to satisfy the contractual standard of performance would be adversely affected by contaminated groundwater. Ex. CY-20 at 29. In other words, groundwater contamination could be addressed separately and it would have no impact on Bechtel's ability to satisfy the standard applicable to its other work. Ex. CY-63 at 49.

88. As noted earlier, the NRC's numeric standard for unrestricted release from residual radioactivity above background from all media, including groundwater, is 25 mrem/yr or less. Under the DOC, CY exercised an option to require Bechtel to use a sitewide standard of 10 mrem/yr for all media. Ex. BPC-3 at 3-4. Thus, under CY's targeted DCGL approach, CY increased the unrestricted release requirement from 10 mrem/yr to 19 mrem/yr, with 9 mrem/yr reserved for existing groundwater residual activity.

89. On June 18, 2002 Bechtel refused CY's targeted DCGL proposal, stating that it preferred to include the proposal in the upcoming ADR process. Ex. CY-53.

90. CY and Bechtel mutually consented and initiated a formal ADR process in July 2002 to develop a path forward for the work activities and to resolve outstanding commercial issues in accordance with Section 21.5 of the DOC.<sup>23</sup> Ex. CY-63 at 79. On November 13, 2002, CY rejected Bechtel's claim that contaminated groundwater impeded final draining and decontamination of the refueling cavity, stating that "there is no relationship between groundwater contamination and Bechtel's ability to complete final draining and decontamination of the refueling cavity" and that "there is no basis for Bechtel's claim that this work is non-critical since Bechtel has failed to submit a Project Schedule since last May despite CY's repeated requests." Ex. CY-35 at CY119056.

91. Bechtel witness Adler is a Bechtel consultant who visited the project site on August 28 and 29, 2002 as discussed more fully below with regard to a discrete Bechtel position regarding CY's current approach to groundwater remediation. Mr. Adler reviewed groundwater sampling data and other geological data. In light of remediation steps which he implemented at another decommissioning project which he had managed, Mr. Adler made recommendations in August and October 2002 to Bechtel and CY for comprehensively characterizing the sr-90 groundwater contamination. Ex. BPC-24 at 3, 9, 10, 11, 12. CY did not implement those recommendations because it did not agree that the remediation measures taken at the project which Mr. Adler had managed were appropriate to remediate groundwater contamination at this project. *Id.* at 12. On the

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<sup>23</sup> The details of the ADR and executive consultations are more thoroughly discussed under issues A.5. and A.6., which deal with contract administration.

record as made, this result is not unreasonable under all of the circumstances applicable at that time.

92. As more fully discussed under issues A.5. and A.6., the final phase of the global settlement discussions and alternate dispute resolution between CY and Bechtel encompassed Bechtel's February 2003 term sheet proposal, CY's counter-offer of late March 2003, Bechtel's rejection of CY's global term sheet in early June 2003, and CY's decision on June 10, 2003 to terminate the settlement discussions and the DOC effective July 13, 2003.

93. **Conclusions:** I find and conclude on the record as made that in light of the technically complex and dynamic circumstances at the time, the proponents have not established a serious doubt that CY acted imprudently during the periods at issue. Even if that was not the case, the record establishes that CY acted prudently with regards to groundwater characterization and remediation throughout the course of the DOC and in its current efforts at groundwater remediation. In 1998 and 1999 CY was familiarizing itself with the groundwater conditions at the site by installing a network of groundwater monitoring wells. The installation of these wells was part of a CTDEP-approved monitoring plan. CY also engaged the services of an environmental consulting company to perform two rounds of groundwater analyses in March and April of 1999. The results of these tests were not available to Bechtel until after it had signed the DOC with CY. However, prior to signing the DOC with CY, Bechtel had access to the NRC Historical Assessment and the FERC initial decision,<sup>24</sup> both of which noted the existence of contaminated groundwater. In this respect, CTP argues on brief that based on its operating history CY should have monitored for HTDs during operations and at least from the beginning of decommissioning. CTP IB at 50. However, CTP witness Hildebrand conceded at hearing, and I concur, that CY was not at fault "in terms of imprudence" for action it took or decisions it made prior to October 2001. Tr. at 2070.

94. The DOC contained provisions that implement the approach to remediating groundwater contamination that was reflected in Bechtel's proposal in response to the RFP mentioned earlier. Section 2.1 of the Contract defines the DOC's responsibility "on a Turnkey basis, to complete the Work." Ex. CY-21 at CY0001380. "Work" is defined in Section 1.12 to include "[a]ll activities necessary...to achieve Unrestricted Release of the Site." *Id.* at CY0001377. "Unrestricted Release" in turn is defined in Section 1.37 to include "final approval by all...federal state agencies having jurisdiction necessary to allow public access to the Site." *Id.* at CY0001380.

95. The inclusion of the remediation of contaminated groundwater within these broad definitions is evident from the fact that, after broadly defining the DOC's responsibility to complete the Work on a Turnkey basis, Section 2.1 goes on to state that "Contractor's

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<sup>24</sup> Connecticut Yankee Atomic Power Company, 84 FERC ¶63,009.

responsibility for the remediation of Groundwater shall terminate at the conclusion of Contractor's warranty period." *Id.* at CY0001380-CY0001381. CY witness Bennet correctly noted that, "If groundwater remediation were not part of the DOC's turnkey responsibility, there would have been no need to limit that responsibility in this way." Ex. CY-19 at 17.

96. The record shows that the presence of contaminated groundwater and the delegation of responsibility for remediating contaminated groundwater were duly considered by Bechtel during the negotiations that led to the execution of the DOC on April 3, 1999. The DOC assured Bechtel of payment for its costs in addressing groundwater contamination while Bechtel would manage the work. CY repeatedly expressed to Bechtel what its Turnkey responsibilities were under the DOC. Ex. CTP-85 at CY0004028-29; Ex. CTP-153 at CY0004030; and Ex. CY-46 at CY11837. A letter from CY witness Heider to Bechtel advised Bechtel that "...groundwater remediation activities associated with decommissioning and with final acceptance are appropriate subjects for changes to compensation. CY continues to stand ready to work with Bechtel to implement the conceptual framework previously agreed to." Ex. CY-46 at CY118837-CY118838. The letter further makes it clear that, "CY will assure that Bechtel is fairly and reasonably compensated in accordance with the provision of paragraph 4.1.2." *Id.* at CY11838.

97. In its September 26, 2000 letter, CY provided Bechtel with its understanding of the disagreement over additional groundwater compensation and assured Bechtel that its work efforts in support of regulatory submittals and project planning regarding groundwater issues do not jeopardize any claim by Bechtel for compensation under section 4.1.2. Ex. CTP-153 at CY0004030. In CY's next letter to Bechtel on April 9, 2001, CY told Bechtel that, "CY continues to stand ready to work with Bechtel to implement the conceptual framework previously agreed to...and...assure[s] that Bechtel is fairly and reasonably compensated in accordance with the provisions of paragraph 4.1.2." Ex. CY-46 at CY118837-CY118838.

98. CY's statements in these two letters reasonably demonstrate that CY was attempting to assuage simultaneously Bechtel's fears concerning compensation for groundwater, maintain flexibility in its administration of the contract with respect to its groundwater provisions, and allow for the work associated with groundwater to progress while preserving the benefits and the advantages of the DOC for itself and its ratepayers.

99. CY witness Heider stated, "[b]y giving Bechtel responsibility for developing and implementing further groundwater characterization, [CY] obtained the services of a recognized, respected contractor, which could take a timely and effective approach to groundwater characterization and cleanup...[CY] structured the DOC to relieve Bechtel of the financial risks associated with groundwater cleanup." Ex. CY-63 at 43.

100. CY witness Lemley described the situation as “one of the premier contractors with regard to nuclear work in the world, contracting with an operator that had operated a nuclear facility for a time approximating 40 years...you had sophisticated organizations on both sides of the contract.” Tr. at 1108.

101. CTP witness Hildebrand’s criticism of CY’s approach to groundwater remediation after the contract was awarded fails to recognize that Bechtel was responsible for performing groundwater characterization and remediation. In its DOC proposal, Bechtel stated that it intended to perform groundwater characterization within six months of the contract date. Ex. CY-44 at CY118819. At that time, Bechtel promised to propose a remediation plan to address groundwater contamination at the site based on the results of its characterization. Bechtel did *not* perform this groundwater characterization work.

102. CY’s diligence in pursuing the remediation of contaminated groundwater is evidenced by the 17 change orders for work associated with contaminated groundwater<sup>25</sup> in which CY sought to insure that comprehensive groundwater work would progress without delay and under which Bechtel invoiced CY approximately \$1.7 million. CY requested that Bechtel provide a plan and schedule for the characterization of groundwater only to be met with a lack of cooperation and resistance from Bechtel which did not produce a plan and insisted that contract restructuring was necessary.

103. As discussed above, CY’s prudence is further evidenced by CY’s efforts to maintain the benefits of the DOC by proposing a “targeted DCGL” approach to Bechtel under which the contractual UR criterion would be changed from 10 mrem/yr to 19 mrem/yr with 9 mrem/yr reserved for residual groundwater. CTP witness Hildebrand agreed that CY’s June 2002 targeted DCGL proposal “kind of took groundwater out of the equation” to the extent that CY’s proposal, if accepted, would have allowed Bechtel to decontaminate soil and concrete to a target of 10mrem/yr. *See*, Tr. at 2065; CY IB at 30. Mr. Hildebrand further agreed that the other facet of CY’s targeted DCGL proposal required Bechtel to meet “unrestricted release against the 19, and they *were still required* to achieve final release of the site”. *Id.* at 2066 (Emphasis added). However, he recognized that Bechtel’s concern that it might have to stay on the site for an indefinite period of time remediating groundwater was probably *not* a valid concern because Bechtel would be staying on site on a time and materials basis and there was a defined warranty period in the contract for groundwater work. Tr. at 2067. In effect, Mr. Hildebrand’s stipulations contraindicate and fail to support his view that CY imprudently failed to take decisive action in this respect.<sup>26</sup> This proposal was ultimately rejected by Bechtel.

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<sup>25</sup> These change orders are discussed thoroughly under issues A.5. and A.6.

<sup>26</sup> At the hearing, Bechtel witness Dr. Taylor, who served as Chief Engineer for the project, indicated that he became aware of this proposal during June 2002, Tr. at Footnote cont’d next page

104. CY witness Heider stated that the principal source of the groundwater contamination was contaminated soil that came in contact with groundwater under storage tanks and other structures near the Containment Building. Ex. CY-63 at 42. That soil could not be removed until the structures on top of it were removed. Those structures could not be removed until the clean-up of the RPV Internals cutting project was completed. There is no reason to believe that earlier testing for sr-90 would have avoided Bechtel's mismanagement of the RPV Internals work or the resulting massive delay. Id.

105. Bechtel's refusal to proceed in accordance with its contract responsibilities ultimately led to its termination. Simply put, CY prudently attempted to maintain the benefits of the DOC with respect to groundwater. CTP witness Hildebrand admitted that it is prudent for an owner in CY's position to analyze the benefits, costs, and risks available to it before taking the "decision corrective" he contends should have been taken. Mr. Hildebrand also admitted that he had not performed any analysis on the benefits, costs, and risks for the decisive corrective action he claims CY should have taken. Tr. 1997-1998, 2017-2021, 2034-2037.

106. In the circumstances, I find that CY acted prudently in connection with the groundwater characterization and remediation program during the decommissioning period at issue in this proceeding.

107. In summary, in the October 2001 - May 2002 timeframe delimited by CTP witness Hildebrand as the period requiring CY decisive corrective action, I find that CY did what a reasonably prudent utility manager would be expected to do in the totality of circumstances and at the time—voice concerns, seek to remedy them, when appropriate, exercise its authority under the DOC and issue change orders to compensate Bechtel for certain activities in an effort to ameliorate problems on the ground, and to pursue mediation, consultation, and alternate dispute resolution with Bechtel in an effort to expedite progress and complete decommissioning. CY witness Lemley cogently observed, "I go back to the level of sophistication of the contractor and the owner in this situation, and I don't believe it would have been prudent for the owner to step into Bechtel's shoes and start directing how Bechtel should perform this work." Tr. at 1123; See also Tr. at 1091. Further, I agree with CY witness Lemley that "CY rightfully sought to insulate itself, and ultimately ratepayers, from unnecessary and adverse risks. To

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1332, at a point in time when he did not have day to day involvement in the project. Id. at 1333. Ex. CY-52 was shown to him during his deposition in February 2005. Id. at 1327. At the hearing he was asked, "Would you agree...that based on your understanding of the nature and extent of groundwater contamination at [CY], that the proposal reflected in [Ex.] CY-52 was reasonable?" and responded, "It would appear to be reasonable." Id. at 1331.

suggest that CY could have usurped Bechtel's role and responsibility under the contract, or recklessly terminated Bechtel before all reasonable alternatives had been explored, simply ignores common sense, good contracting practice, and CY's oversight responsibilities in the turnkey relationship established by the contract between Connecticut Yankee and Bechtel." Ex. CY-69 at 2. Mr. Lemley also cogently noted that "Connecticut Yankee had to consider the fact that if it terminated Bechtel before the cleanup was completed, as Mr. Hildebrand advocates, Connecticut Yankee and ratepayers would be saddled with the added risk and liability of the RPV cleanup effort." Ex. CY-69 at 19.

108. These findings and conclusions apply with equal force to Bechtel's contentions that CY was imprudent in connection with characterization and remediation of groundwater contamination during the term of the DOC and until Bechtel's termination, including the alleged failure to issue a DCO when an ACO could not be agreed upon. These findings also apply to Bechtel's contention that CY's current groundwater remediation efforts are imprudent.

109. Similarly, these findings and conclusions apply with equal force to Staff's contentions that are based upon and limited to its review of documents of record.

110. On brief, CY argues that the prudence of its *current* groundwater remediation program is "a question for another day and another case" and "[i]f costs of groundwater remediation later prove to be higher than [CY] now projects...CY will have to return to the Commission to seek authorization for additional funding". CY IB at 8. CY argues that Bechtel has not identified any decommissioning costs that are the subject of CY's request in this proceeding that should be disallowed as a result of the imprudence it alleges and therefore, Bechtel's attack on CY's current approach to groundwater "has no place here." *Id.*

111. CY is correct that if costs prove to be higher than the annual figure of \$93 million, it will have to return to the Commission to seek additional funding. However, the prudence of CY's current groundwater remediation approach is relevant to this proceeding because the total amount CY seeks to recover includes costs necessarily attributable to CY's current groundwater approach. Therefore, an inquiry into the prudence of CY's current groundwater remediation approach is appropriate.

112. On brief, Bechtel argues that CY's current decommissioning program post-DOC termination compounds the imprudent action it took during the term of the DOC. BPC IB at 9. Specifically, Bechtel argues that CY's decision to proceed with decontamination subsequent to Bechtel's termination without an adequate groundwater characterization is a high-risk and imprudent course of action and could very well result in additional costs to ratepayers. BPC PTB at 29; BPC IB at 126. Bechtel witness Reinsch testified that, "[p]lunging into decontamination and demolition prior to characterization is an expensive endeavor that includes the following types of extra work not contemplated under the

original execution plan: Ripping and shipping structures; Searching for the sources through brute force removal of overburden; and Removal of contaminated soil, bedrock, water and foundations.” Ex. BPC-37 at 23.

113. Bechtel witness Heter, Bechtel’s environmental site manager since the year 2000, concluded that CY’s current remediation activities are imprudent because they *may* redistribute the groundwater contamination at the site and cause additional costs and delays in completing the project. Ex. BPC-3 at 32. Mr. Heter identified several problems with CY’s current plan to proceed with groundwater remediation. He testified that, “[a]ll the sources have not been identified...CY still does not have a good understanding of the bedrock aquifer, although it has already been determined that contamination extends into the bedrock aquifer...CY’s excavation activities *may* have little (if any) effect on groundwater contamination in the bedrock aquifer...the presence of contamination in the bedrock aquifer *may* migrate into and re-contaminate the overburden aquifer after it is excavated and backfilled. *If* this occurs, CY *may* need to re-excavate the overburden in the tank farm/alleyway area.” Ex. BPC-3 at 23-24 (emphasis added).

114. Bechtel witness Dr. Rubin stated his belief that CY’s decision to implement remediation before characterizing the site and completing a conceptual model<sup>27</sup> was imprudent because it *might* significantly delay and increase the costs of implementing the project. Ex. BPC-27 at 4; Tr. at 1932. Dr. Rubin testified that “[p]rematurely conducting remediation *may* also make site conditions worse or more complex.” Ex. BPC-27 at 25 (emphasis added). Dr. Rubin believed that it is “very unlikely that the highest levels of groundwater contamination have been identified.” *Id.* at 6. Dr. Rubin testified that the level of site characterization conducted to date was not sufficient to rule out other potential areas of contamination and concluded that “[t]oo many unknowns remain for CY to conclude that its remediation approach will work.” *Id.* at 7, 20.

115. As previously discussed, Bechtel witness Adler visited the project site on August 28 and 29, 2002 and made recommendations to Bechtel and CY in August and October 2002 for remediating the project’s groundwater which was contaminated with sr-90. Relative to CY’s groundwater remediation approach subsequent to termination of Bechtel, Mr. Adler testified further that absent full characterization of all potential sources and analysis of the full extent of the groundwater contamination, CY’s current groundwater remediation approach is imprudent. Mr. Adler also believes that CY’s approach created a substantial risk of increased costs and delay in the completion of requirements for license termination. Ex. BPC-24 at 3, 13.

116. In rebuttal, CY sponsored the testimony of witness Miller, CY’s project manager since August 2003 and, in that capacity, responsible for CY’s groundwater

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<sup>27</sup> Dr. Rubin testified that the conceptual model is a summary of the physical processes that control transport of contaminant in the site. Tr. at 1956.

characterization and remediation efforts. Tr. at 971-972. Mr. Miller explained that currently all confirmed primary sources<sup>28</sup> of groundwater contamination have been removed by draining water from process tanks including the RWST. The most significant secondary sources<sup>29</sup> of groundwater contamination have been removed by the completion of a large excavation located adjacent to the Containment Building and including the areas under the Primary Auxiliary Building Tank Farm (PAB).<sup>30</sup> CY is now focused on removal of the remaining secondary sources of contamination. Mr. Miller observed that the groundwater contaminant concentrations observed at the site are modest and do not generally exceed the groundwater closure criteria at most locations. Ex. CY-67 at 12. Mr. Miller pointed out that the CTDEP representatives have concurred with CY's approach to groundwater. *Id.* at 13. Mr. Miller also testified that CY has a schedule for an 18-month monitoring period after completion of remediation to demonstrate to the NRC that CY meets the closure criteria for license termination. Tr. at 1029.

117. At the hearing, Mr. Miller elaborated on the steps CY has taken since August 2003 to control groundwater contamination at the site. Ex. CY-67 at 5-14. That further explanation addressed, *inter alia*, soil removal in the tank farm area; soil excavation in the "service alley"; removal of the foundational walls of the auxiliary and waste disposal buildings; removal of contaminated soil that was discovered underlying the primary auxiliary building; excavation and removal work of the "RHR" pit; excavation, demolition, and removal of tank farm residual footings and concrete structures; and removal of the ion exchange building and spent resin facility and other structures and installation of several dewatering wells (symbol DW) which are shown on his Ex. CY-78. Tr. at 993-995, 1004, 1006-1008. Mr. Miller denoted these remediation activities in Ex. BPC-84A. Mr. Miller also delimited CY's remediation of secondary sources of contamination. Tr. 1008-1010, 1025-1027; Ex. BPC-84-B. Mr. Miller confirmed that

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<sup>28</sup> Primary source refers to the material that resulted in the internal release of an environmental contaminant such as contaminated wastewater contained in a tank that subsequently was released from that tank or its appurtenant systems. Tr. at 973.

<sup>29</sup> Secondary source in contaminant release and transport is typically geological material that becomes contaminated by release of the primary sources material and is in such a condition that it could continue to contribute contamination to groundwater after elimination of the primary source. Tr. at 985. Mr. Miller stated that, "When I arrived at the site, there was a body of groundwater located in the vicinity of the tank farm, primary auxiliary building and near the service building that was contaminated to a degree that it could continue to contaminate groundwater down gradient just by flow of that groundwater. So in that case, there was a secondary source that consisted of contaminated groundwater." *Id.*

<sup>30</sup> The PAB Tank Farm stores water prior to processing and release from the plant. Ex. CY-20 at 11.

CY has a schedule for an 18-month monitoring period after completion of remediation to demonstrate to the NRC that it meets the closure criteria for license termination. Tr. at 1029. Based on his judgment and experience, Mr. Miller did not expect the contamination levels that were observed before and after remedial actions to return. Tr. at 1031.

118. Mr. Miller explained that there was no reason to characterize fully the site before remedial activities were begun particularly where, as here, the remediation activities could be and were coordinated with structural decontamination and demolition. Tr. at 988. Mr. Miller stated that the characterization and conceptual modeling activities which CY has conducted have enabled CY to identify source terms that were contributing to the groundwater contamination that was observed - “[i]t made sense to remove the source term at the earliest possible time consistent with other decommissioning activities to cut off the contribution of those source terms to groundwater at the site.” Ex. CY-67 at 15. He testified further that it was well accepted that effective source control action should be taken promptly. He pointed out that a complete or full site characterization is commonly not necessary to implement effective source control action. Id. at 16-17. He also pointed out that the approach that CY is applying to addressing groundwater contamination has been incorporated by the United States Department of Energy as an important element of its Streamlined Approach for Environmental Restoration (SAFER). Id. at 17.

119. On the record as made and, on balance, I find and conclude that Bechtel has failed to establish a serious doubt that CY has acted imprudently with regard to its current groundwater remediation program. The testimony of Bechtel witnesses Heter, Rubin and Adler is inconclusive and unpersuasive. In general, Bechtel’s witnesses recognize the uncertainty present in their conceptual proposals. Bechtel witness Heter speculated that the delays encountered by CY in completing characterization and the need to conduct more extensive post-remediation sampling could result in higher costs. Ex. BPC-3 at 27-28; Tr. at 2216, 2218. Mr. Heter conceded during cross-examination that “sitting here right now it [CY’s current groundwater remediation approach] could work”. Tr. at 2219.

120. Bechtel witness Dr. Rubin assessed CY’s effort in the context of what is “professionally and scientifically acceptable”. Tr. at 1936. However, Dr. Rubin had not reviewed CY’s conceptual model. Tr. at 1959. Dr. Rubin was aware that CY had developed a numerical model.<sup>31</sup> He also had not reviewed the numerical model. Tr. at 1958, 1976. Dr. Rubin had not visited the site and had not spoken to Bechtel witness

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<sup>31</sup> He testified that some conceptual models are accompanied by numerical models. Tr. at 1956. In response to my inquiry, he testified that a numerical model is a mathematical representation of the conceptual model- a correlation of the data reflected in the conceptual model so that you might be able to predict what might occur if you did certain things. Tr. at 1978.

Heter prior to the hearing. Tr. at 1939, 1941. Dr. Rubin conceded that he did not know what requirements for groundwater remediation were imposed by the CTDEP and NRC. Tr. at 1939. Dr. Rubin also conceded that he was unaware that CY's groundwater monitoring plan had been approved by both of these agencies. Tr. at 1935. At the hearing, Dr. Rubin reaffirmed his view that he could not conclude that CY's remediation approach will not work. Ex. BPC-27 at 20; Tr. at 1974.

121. Bechtel witness Adler's conceptual belief that full characterization should be done prior to specific remediation activities being undertaken is similar to that of Bechtel witness Dr. Rubin. In light of remediation steps which he implemented at the Cintichem decommissioning project in Tuxedo, New York, Mr. Adler made recommendations in August and October 2002 to Bechtel and CY for comprehensively characterizing sr-90 groundwater contamination. Ex. BPC-24 at 3, 9, 10, 11, 12. CY witness Miller's written rebuttal testimony is uncontroverted. Mr. Miller testified that CY did not implement those recommendations because it felt that a fuller assessment of the groundwater conditions at the Cintichem project was needed in order to compare the two sites on a hydrologic basis. Ex. CY-67 at 21. In light of the record as made, I find this explanation reasonable.

122. For all these reasons and in these circumstances, I find and conclude that CY has acted prudently in connection with its current groundwater remediation program.

123. In summary, on the record as made and, on balance, the proponents have failed to adduce evidence which casts a serious doubt that CY acted imprudently during the periods at issue and imprudently incurred decommissioning costs. Even if this was not the case, I find that CY has shown that it acted prudently in connection with the decommissioning schedule and that its actions and resulting costs in light of all of the circumstances existing during the periods at issue were not imprudent. Stated differently, CY has demonstrated that its actions at issue were those of a reasonable utility management, made in good faith, under the same circumstances and at the time and were prudent.

**124. A.3. Did CY act prudently in connection with the segmentation of the RPV internals and RPV removal?**

125. **Finding:** Yes. CY acted prudently in connection with the segmentation of the RPV internals and RPV removal.

126. On brief, CTP reiterates the position of witness Hildebrandt that CY imprudently managed the segmentation of the RPV and RPV removal. As to the point in time of such imprudence, CTP's argument on brief is vague and seems far removed from CTP witness Hildebrandt's testimony and record evidence that CY should have taken decisive corrective action by October 2001 but no later than May 2002. Ex. CTP-16 at 9, 129. As noted earlier, this decisive action "could have been anything from directing BPC [Bechtel] as to how to proceed with the project to terminating BPC." *Id.* CY vigorously

denies that its actions with regard to RPV segmentation and removal were imprudent, be it as early as November 1999, as alleged on brief by CTP, or as of and beyond Mr. Hildebrand's timeframe of October 2001 - May 2002.

127. Bechtel argues that the problems it encountered with regard to RPV segmentation did not provide a valid reason for its termination and is evidence of CY's imprudence. BPC IB at 98.

128. For the reasons that follow, I find and conclude that CY was not imprudent as alleged by Mr. Hildebrand, Bechtel, and Staff. I further find that CY's termination of Bechtel effective July 2003 was not imprudent in this and other respects. Stated differently, in this respect CTP, Bechtel, and Staff have not established a serious doubt and, in any event, the record establishes that CY was not imprudent.

129. The DOC called for completion of RPV segmentation internals by May 2000. Ex. CTP-16 at 76. Segmentation commenced in January 2000 and was completed in November 2000. Id.; Ex. CTP-146 at CY0007795.

130. The reactor cavity was drained by February 2003. The RPV was placed in the shipping cask in December 2003 and delivered to the burial site in January 2004. Tr. at 1673.

131. Before the RPV can be removed, the highly contaminated structural internals must be removed using sophisticated segmentation equipment and the reactor cavity must be decontaminated and drained. CTP witness Hildebrand explained:

The reactor internals constitute what is known as Greater-Than-Class-C ("GTCC") Waste, highly radioactive steel that must be stored with spent fuel while awaiting permanent disposal. The cutting and loading of the segments is performed under water to make use of water as a radiological shielding. All of the work is done remotely using cameras and tools while working from a platform above the reactor. Filtration systems are used to maintain water clarity. The actual cutting is done using high pressure water jet cutting technology. As the segmentation is performed, the sections are moved remotely to the reactor cavity where they are placed in canisters for eventual storage at the ISFSI. Ex. CTP-16 at 77.

132. Mr. Hildebrand argued that there was "no indication that before the segmentation plan began in January 2000, CY Oversight personnel returned to the test facility to observe the testing of the equipment that was actually to be used in the segmentation or that CY otherwise assured itself that this previously untested equipment would actually perform as promised. It thus appears that CY failed to prudently oversee the testing of the cutting equipment." Ex. CTP-16 at 79; See CTP IB at 93. On brief, CTP argues

further that CY “failed to insist that all of its legitimate concerns be adequately addressed prior to the commencement of segmentation activities.” CTP IB at 94. CTP also alleges that this oversight failure, in turn, was responsible for the failure of abrasive waterjet equipment that “led to many of the delays, increased contamination, and unnecessary costs”. CTP IB at 95, 98-100. Thus, CTP faults as “conclusory” CY witness Heider’s testimony, Ex. CY-63 at 30; Tr. at 1654, that CY would not have allowed Bechtel to start the RPV internals segmentation work until Bechtel resolved CY’s concerns. CTP IB at 95.

133. With regard to subsequent delays, on brief CTP further argues that “even though CY had the contractual authority and regulating responsibility to insist that reasonable corrective and mitigation steps be taken, it did not.” CTP IB at 90. (In fact, as discussed below, CY did insist and did receive assurances from Bechtel that its early concerns about testing of segmentation equipment prior to segmentation would be satisfied and that the equipment had been adequately tested.) From this faulty thesis, CTP argues that essentially, “CY merely exchanged two years of correspondence with Bechtel, constantly reminding Bechtel of its “obligations” under the contract and denying Bechtel’s *force majeure* claims [footnote omitted] with no significant improvements in performance. See Ex. CY-35(6); Ex. CY-35(7); Ex. CTP-110; Ex. CY-35(3); Ex. CY-35(4); Ex. CY-35(5). Even when it was clear that the correspondence was not moving the project forward, CY did not alter its failed strategy. CY refused to recognize the obvious – letter writing, which CY unreasonably believed was corrective action, was not enough. A prudent nuclear plant operator would have insisted that work stop pending acceptable corrective action – a limited delay that would have allowed a long-term schedule benefit.” Ex. CTP-16 at 87; CTP IB at 90-91. Mr. Hildebrand concluded that CY’s failure to provide overall management guidance and direction of RPV Segmentation and cavity cleanup was imprudent. Ex. CTP-16 at 88.

134. CY witness Heider’s *rebuttal* testimony (and not the earlier supplemental direct testimony, Ex. 63 at 30, that CTP references), his responses during cross-examination, and supporting documents establish that CY related several concerns to Bechtel at a November 10, 1999 pre-mobilization testing demonstration with regard to testing of the equipment prior to deployment. Bechtel, the contractor hired for its high degree of sophistication and expertise on nuclear decommissioning, assured CY that those concerns would be met prior to deployment of the RPV segmentation/abrasive cutting equipment.

135. In this respect, CY correctly points out that in November 1999, CY personnel visited PCI’s<sup>32</sup> facility, observed a demonstration of the cutting equipment to be used by PCI, and provided comments to Bechtel concerning its observations. Ex. CY-34(5). Mr. Heider testified that in November 1999 “[t]he Oversight Group reviewed documents

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<sup>32</sup> PCI was the Bechtel subcontractor for this work.

and traveled to Bechtel's subcontractor's [PCI] testing facility to observe pre-mobilization testing of the cutting equipment." Ex. CY-20 at 8; Tr. at 1658. This included a demonstration of the abrasive cutting equipment to be used to segment the RPV internals. CY attended this demonstration for occupational safety reasons, as well as part of its oversight function. Tr. at 1658, 1659.

136. Following the demonstration, CY gave Bechtel a number of comments based upon the field observation. Ex. CY-34(5). Among CY's comments were ALARA<sup>33</sup> concerns about the adequacy of PCI's testing, which CY considered to be an important issue for worker safety. Tr. at 1660-1661; Ex. CY-34(5). Bechtel forwarded the comments to PCI, with the comment, "It is a safe bet that these issues will have to be adequately resolved prior to segmentation." Ex. CTP-181 at CY027140. CY indicated that its "[c]omments during the demonstration indicated that the equipment had only been operated for 6-8 hours. Additionally there were some problems associated with the abrasive delivery system. Bechtel should ensure sufficient mockup cutting time has been demonstrated by PCI prior to starting production cutting onsite." Ex. CY-34(5) at CY119042; See also, Tr. at 1657-1658, 1660.

137. Bechtel responded that "[a]t the time of the demonstration November 10, 1999 some equipment had not been operated at all . . . The abrasive delivery system used during the demonstration will not be used. An abrasive delivery system specifically developed by the equipment manufacturer will be used at site. This system was installed and tested after the demonstration was completed. Additional testing of the manipulator bridge and abrasive waterjet cutting equipment is ongoing." Ex. CTP-123 at CY027144.

In January 2000, CY requested that Bechtel resolve the issues raised by its comments, including its question of whether PCI had demonstrated sufficient mock-up cutting time, before Bechtel and PCI began the cutting of the RPV Internals on site. Ex. CY-34 at CY 119042. By a letter dated January 25, 2000, Bechtel assured CY that after its visit to PCI's facilities, the "system was tested and qualified by PCI in accordance with their procedures prior to shipment to the site." Ex. CY-88 at CY169535. In short, Bechtel reassured CY that the cutting equipment was now ready for use. Additionally, Bechtel assured CY that its other concerns had been addressed. Ex. CY-88. Based upon these assurances, Bechtel's renowned experience in the nuclear industry, and the absence of any basis at this very early stage of the project to doubt Bechtel's ability and incentives to complete the decommissioning in a safe and efficient manner, Mr. Heider testified that CY allowed Bechtel to proceed with the work. Ex. CY-63 at 30- 34; Tr. at 1667-1668.

138. In May 2000, CY requested a corrective action plan from Bechtel to reduce radiation exposure associated with the RPV Internals cutting. Ex. CY-34(2).

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<sup>33</sup> Under NRC regulations, ALARA refers to radiation protection principles to achieve occupational doses...as low as is reasonably achievable. Tr. at 1086.

139. In June and July 2000, CY requested that Bechtel provide a detailed briefing on its cutting plans, material handling, expected dose, improvement considerations, and expected challenges before it initiated any later phases of the cutting work. Ex. CY-34(3); Ex. CY-35(4).

140. CY also engaged a specialist experienced with underwater clean-up activities at other nuclear sites and remote cleaning techniques in order to provide feedback to Bechtel. On August 9, 2000, CY provided Bechtel with its consultant's recommendations for improvement of materials handling and reduction of radiation exposure. Ex. CY-30 at 15.

141. In March 2001, CY provided Bechtel with a Focused Evaluation Report which analyzed the impact of the RPV Internals cutting work (and other work) on the project schedule. Ex. CY-84.

142. In July 2001, CY Yankee pressed Bechtel for a schedule recovery plan. Ex. CY-35(2).

143. In letters to CY dated August 9, 2001, November 29, 2001, and December 19, 2001, Bechtel claimed delays in the performance of Bechtel's segmentation subcontractor were due to reasons beyond its control. Delays caused by the discovery of previously undisclosed transuranic material in the cavity pool and the unusually low level of the Savannah River were said to constitute *force majeure* under the DOC Contract and preclude the delivery of the RPV to the disposal site in Barnwell, South Carolina. Ex. CTP-134 at CY0001757; Ex. BPC-37 at 30.

144. As noted in the discussion of issue A.5., CY issued ACO 01-05 on September 18, 2001 and added intermediate milestones for disposal of the RPV. Ex. CY-21 at CY0001655.

145. On January 8, 2002, CY rejected Bechtel's *force majeure* claims. Ex. CY-35(3) at CY119048; Ex. CY-35(4); Ex. CY-35(5); Ex. CY-35(6); Ex. CY-35(7). CY then asked Bechtel to provide a detailed plan for removal of the RPV, including a plan for temporary storage on site in the event that the RPV could not be transported when eventually ready for shipment to Barnwell. Ex. CY-35(3).

146. In May 2002, Bechtel announced that it planned to eliminate the second shift then working on the RPV clean-up. CY objected to this plan and offered to work with Bechtel to plan for interim storage of the RPV until it could be shipped to Barnwell. Ex. CY-35(4). Bechtel proceeded with its plan and claimed that this elimination of the second shift would have no effect on the critical path. Ex. CY-85(3); Tr. at 1870. In response, CY emphasized to Bechtel that it needed to prepare the RPV for removal so that an opportunity to transport the RPV by the Savannah River was not missed. Ex. CY-35(5).

147. In September and November 2002, CY advised Bechtel that the “Time is of the Essence” provision in Section 3.2 of the DOC was applicable to the RPV work. Ex. CY-35(6); Ex. CY-35(7).

148. In December 2002, CY directed Bechtel to restore the second shift performing the RPV work and agreed to advance payment for this work, subject to a reservation of rights.<sup>34</sup> Ex. CY-63 at 37–38; Ex. CY-35(8); Ex. CY-36; Ex. CTP-131. The payment was in the form of a purchase order issued in March 2003. Ex. CY-36.

149. CY witness Heider testified that removal of the RPV was delayed after Bechtel's termination because Bechtel did not tell CY until May 2003 that the discharge canal at the site would have to be dredged in order to ship the RPV and had not prepared a permit request for this dredging. Ex. CY-20 at 14–15. Following Bechtel's termination, CY obtained approval from the CTDEP to dredge the discharge canal. As noted earlier, the cavity was drained in February 2003. Ex. CTP-127 at C030986. CY shipped the RPV to Barnwell in December 2003. Ex. CTP-121 at 2.

150. Additionally, as discussed more fully under issue A.5., CY and Bechtel agreed to commence global settlement discussions. CY also issued change orders for a “contractor incentive” in an attempt to entice Bechtel to continue progress. See Ex. CY-21 at CY0001672. At Bechtel's request for cash flow relief in 2002, CY also acquiesced in creating intermediate milestones, which allowed Bechtel to invoice for work performed under an expedited time frame.

151. In the circumstances present here, and, on balance, I find and conclude that the proponents have failed to establish a serious doubt that CY acted imprudently in the foregoing respects. The record establishes that CY did insist and was assured by Bechtel that its legitimate concerns would be adequately addressed prior to the commencement in January 2000 of segmentation activities. Further, under all the circumstances present during the periods at issue, I find, on balance, that CY did what a reasonably prudent utility manager would be expected to do in the circumstances and at the time—voice concerns, seek to remedy them, when appropriate, exercise its authority under the DOC and issue change orders to compensate Bechtel for certain activities in an effort to ameliorate problems on the ground, and to pursue mediation, consultation, and alternative dispute resolution with Bechtel in an effort to expedite progress and complete decommissioning. CY witness Lemley cogently observed, “I go back to the level of sophistication of the contractor and the owner in this situation, and I don’t believe it would have been prudent for the owner to step into Bechtel’s shoes and start directing how Bechtel should perform this work.” Tr. at 1123; See also Tr. at 1091.

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<sup>34</sup> Bechtel advised CY on January 16, 2003, that it implemented the second shift for reactor cavity draindown and RPV removal on January 6, 2003. Ex. CTP-131.

152. As mentioned under the discussion of issues A.5. and A.6., I agree with CY witness Lemley that “CY rightfully sought to insulate itself, and ultimately ratepayers, from unnecessary and adverse risks. To suggest that CY could have usurped Bechtel’s role and responsibility under the contract, or recklessly terminated Bechtel before all reasonable alternatives had been explored, simply ignores common sense, good contracting practice, and CY’s oversight responsibilities in the turnkey relationship established by the contract between Connecticut Yankee and Bechtel.” Ex. CY-69 at 2. Mr. Lemley further cogently noted that “Connecticut Yankee had to consider the fact that if it terminated Bechtel before the cleanup was completed, as Mr. Hildebrand advocates, Connecticut Yankee and ratepayers would be saddled with the added risk and liability of the RPV cleanup effort.” Ex. CY-69 at 19.

153. To recapitulate, as concerns resolution of issue A.3., on the record as made and, on balance, the proponents have failed to adduce evidence which casts a serious doubt that CY acted imprudently during the periods at issue and imprudently incurred decommissioning costs. Even if this was not the case, the record establishes that CY was not imprudent in connection with the decommissioning schedule and that its actions and resulting costs in light of all of the circumstances existing during the period at issue were not imprudent. In this respect, CY has demonstrated that its actions at issue were those of a reasonable utility management, made in good faith, under the same circumstances and at the time were prudent.

154. **A.4. Did CY act prudently in connection with the spent fuel transfer to the ISFSI?**

155. **Finding:** Yes. On the record as made and on balance, I find and conclude that CY acted prudently in connection with the spent fuel transfer to the ISFSI.

156. Bechtel’s response to CY’s RFP included an aggressive 54-month work schedule for the completion of decommissioning of the plant. Ex. CY-19 at 13. Pertinently, the work schedule included the transfer of spent fuel from the spent fuel pool and GTCC waste to the ISFSI. *Id.* Bechtel acknowledged that its schedule was aggressive and assured CY that its site proposal team had thoroughly reviewed, considered, and estimated the specific scope of the work activities.

157. To put matters in perspective with regard to the stipulated prudence issues and CTP’s concerns, it is to be recalled that with regard to CTP’s complaints, CTP witness Hildebrand testified that CY was imprudent because it failed to take decisive corrective action by October 2001 but no later than the beginning of May 2002. Ex. CTP-16 at 9. However, as concerns the ISFSI, Mr. Hildebrand testified that “I have not faulted CY...[for] a one-year delay in the start of ISFSI construction” associated with the Town of Haddam’s refusal to issue a building permit in December 2000.

158. Mr. Hildebrand also recognized that “The RPV did not constrain any work that would have prevented the spent fuel processing from moving forward.” Ex. CTP-16 at 91.

159. Mr. Hildebrand claims that CY was imprudent because of *subsequent* delays in transferring spent fuel to the ISFSI. Ex. CTP-16 at 96. Mr. Hildebrand testified that, “According to Bechtel’s May 2002 schedule, fuel moves were supposed to begin in January 2003, but did not begin until early 2004. Thus, there was at least one year of delays associated with dry fuel storage that cannot be attributed to delay caused by the lack of a building permit.” Ex. CTP-16 at 97. In his view, the delays were controllable with prudent management and should not have been allowed to block critical spent fuel moves until April 2004 when CY loaded its GTCC waste canister and May 2004 when CY loaded the first dry fuel cask. *Id.* at 96. CY witness Heider testified that at the contract termination effective date, Bechtel was about 15 months behind its initial ISFSI project schedule. Ex. CY-20 at 18. In this respect, Bechtel argues that delays in the transfer of spent fuel were caused by CY’s imprudence and were outside the control of Bechtel. BPC IB at 101. In contradistinction to CTP’s perspective that CY was not imprudent as concerns delays resulting from the obtaining of a building permit, Bechtel argues that the delays associated with the Town of Haddam’s refusal to issue a building permit in December 2000 are the result of CY’s Imprudence. BPC IB at 101; BPC RB at 53.

160. As noted earlier, based upon its review of documents summarized in Appendix D to its brief, Staff concluded that these documents did *not* present a clear enough picture to determine whether or not CY acted prudently in connection with the transfer of spent fuel to the ISFSI. In its IB at 59, Staff says it “is willing to let the matter rest.”

161. First, with regard to Bechtel’s allegations of imprudence attributable to delays resulting from the obtaining of a building permit, the record establishes that CY requested Bechtel on December 14, 2000, to stop all work activities associated with the ISFSI and sued the town for the issuance of an appropriate permit. Tr. at 1642. The litigation was settled in January 2002 *and the town approved the issuance of a permit*. CY authorized Bechtel to proceed with completion of the ISFSI site. Ex. CTP-16 at 94; Ex. CTP-149 at CY0001917. Subsequently, as a result of extended negotiations, effective September 3, 2002, CY issued ACO 02-15 which compensated Bechtel for all damages for the delayed start of Bechtel’s work at the ISFSI with a “lump sum increase of \$2,510,000 to the FFP.” Ex. CY-21 at CY0001687. In the circumstances present here, like Mr. Hildebrand, I find it inappropriate to fault CY for the delay engendered by these events. Put another way, Bechtel has not raised a serious doubt that CY was imprudent in this respect and, in any event, the record as made establishes that CY acted prudently.

162. With regard to CTP’s and Bechtel’s concerns about delays in the spent fuel transfer, CY witness Heider testified that spent fuel decommissioning could not be initiated until the spent fuel was transferred to dry cask storage containers located at the

ISFSI. Ex. CY-20 at 16. A typical dry cask storage system is illustrated in Ex. CTP-136. In short, the spent fuel is put into canisters; the canisters are dried, and are transported to the ISFSI where they are placed in robust, concrete casks. The spent fuel is stored in the ISFSI until the United States Department of Energy transfers the fuel to a permanent repository. Before the fuel can be placed into canisters, however, it must be characterized to correct for damaged fuel assemblies. Ex. CTP-16 at 90.

163. Bechtel completed its initial fuel characterization in March 2000. *Id.* During this characterization, Bechtel reviewed 1,019 fuel assemblies and identified 37 failed fuel assemblies. “Failed fuel” refers to fuel assemblies that have defects greater than a pinhole leak or a hairline crack. Ex. CY-20 at 19. Claims associated with these failed fuel assemblies were the subject of negotiations between CY and Bechtel and resulted in a June 2001 contract amendment. Under that contract amendment, CY paid Bechtel \$223,447 and Bechtel agreed to waive all other claims related to failed fuel.

Mr. Hildebrand conceded, and I agree, that “this dispute does not appear to have delayed the project.” Ex. CTP-16 at 92.

164. Mr. Hildebrand claims that CY was imprudent because it failed to manage delays *after* January 2002 that are associated with spent fuel characterization. In his rebuttal testimony, CY witness Heider reiterates his view in his Supplemental Direct testimony that CY reasonably and appropriately exercised its responsibilities and that Bechtel failed to live up to its responsibilities to plan and implement fuel transfer activities. Ex. CY-63 at 57; Ex. CY-20 at 17-18.

165. Subsequent to Bechtel’s review, CY hired a subcontractor to consolidate CY’s historical records and independently characterize the spent fuel. The subcontractor identified substantially more damaged fuel assemblies than reported by Bechtel.

166. During March 2002, CY issued a change order—ACO 02-03—to accelerate ISFSI construction work by working Fridays for the next eleven weeks. The change order also included a new intermediate milestone for completing the first concrete pour of the IFSFI pad as further cash flow assistance to Bechtel. Ex. CY-20 at 21; Ex. CY-41.

167. In late May of 2002, CY informed Bechtel that there were historical test reports and chemistry reports indicating that additional fuel assemblies characterized by Bechtel as intact were damaged. Ex. CY-20 at 19; Ex. CTP-141. CY and Bechtel disagreed with each other with regard to the extent to which additional compensation was appropriate. See Ex. CTP-107 at CY0001791.

168. In late July of 2002, CY advised Bechtel that Bechtel’s review of historical records appeared to be incomplete and requested that Bechtel perform additional spent fuel categorization. CY asked Bechtel to conduct an inspection and classification effort to identify and repair, as necessary, the suspected fuel to ensure that CY fuel assemblies had been categorized correctly. Ex. CY-20 at 19; Ex. CTP-142 at CY152452. A few days

prior to this, Bechtel had advised Mr. Heider that it refused to perform the work without additional compensation because of changed regulatory requirements. Ex. CY-20 at 19; Ex. CTP-144.

169. In September 2002, CY issued DCO 02-18 which required Bechtel to proceed with the work and submit a claim for additional compensation along with its contractual basis. Ex. CY-20 at 19; Ex. CY-39. Bechtel refused and the parties agreed to submit this matter to non-binding mediation. The mediation effort was conducted during October 2002 and was unsuccessful. Ex. CY-20 at 19; Ex. CTP-45 at KJH-E-0043613.

170. In December 2002, this dispute was folded into the global ADR meetings discussed under issues A.5. and A.6., which included concerns about groundwater remediation and RPV segmentation. With regard to spent fuel characterization, CY, subject to a reservation of rights, agreed to pay for third party costs associated with failed spent fuel characterization, including Bechtel's subcontractor direct cost associated with providing ultrasonic testing and fuel reconstitution services and materials, CY-supplied certified fuel handler and security services, and vendor costs directly associated with procuring damaged fuel cans in excess of 42 damaged fuel cans. Ex. CY-20 at 19; Ex. CY-42; Ex. CY-95, 2-page letter dated February 27, 2003, and Attachment B, "Failed Fuel Cost Advance Payment".

171. In early 2003, CY contracted with another vendor to perform fuel inspections, the results of which were provided to Bechtel in May 2003. See Ex. CTP-138. In this respect, CY witness Heider pointed out that in March 2003, the CY Oversight Group provided Bechtel with feedback in the form of a lengthy Decommissioning Performance Report. The report contained recommendations for improvement and comprehensive evaluation of Bechtel's readiness to move fuel.

172. Mr. Heider also testified that CY facilitated Bechtel's access to Yankee Atomic and Maine Yankee sites so that it could observe fuel transfer activities. Mr. Heider testified further that CY also supported the regulatory approvals needed by Bechtel for IFSFI construction and the dry cask storage system. Ex. CY-20 at 21; See Ex. CY-63 at 58.

173. Mr. Hildebrand believed that CY should have gone further and displaced Bechtel's planning and execution of the fuel transfer work. Mr. Heider disagreed and explained that this course would be unreasonable and unwarranted during 2002 and 2003. As with the other stipulated prudence issues, Mr. Heider emphasized that if CY had jumped in and planned and executed the fuel transfer work for Bechtel, it would have taken on significant financial and performance risks for itself and its customers. Id.

174. Findings and conclusions similar to those made for the preceding issues are equally applicable to this issue. To be clear, here, as in other respects in which CY has been alleged to have acted imprudently, CTP and Bechtel have failed to establish a

serious doubt that CY acted imprudently. Even if this was not the case, I further find, on the record as made, and, on balance, that during the period at issue CY did what a reasonably prudent utility manager would be expected to do in the circumstances and at the time--voice concerns, seek to remedy them, when appropriate, exercise its authority under the DOC and issue change orders to compensate Bechtel for certain activities in an effort to ameliorate problems on the ground, and to pursue mediation, consultation, and alternate dispute resolution with Bechtel in an effort to expedite progress and complete decommissioning. I agree with CY witnesses Heider and Lemley that these efforts sought to preserve the benefits of the turnkey contract for CY's ratepayers. As to the latter, see Ex. CY-69 at 16, 20. I further agree with CY witness Lemley that "CY rightfully sought to insulate itself, and ultimately ratepayers, from unnecessary and adverse risks. To suggest that CY could have usurped Bechtel's role and responsibility under the contract, or recklessly terminated Bechtel before all reasonable alternatives had been explored, simply ignores common sense, good contracting practice, and CY's oversight responsibilities in the turnkey relationship established by the contract between Connecticut Yankee and Bechtel." Ex. CY-69 at 2. Similarly, Mr. Lemley also cogently observed that, "I go back to the level of sophistication of the contractor and the owner in this situation, and I don't believe it would have been prudent for the owner to step into Bechtel's shoes and start directing how Bechtel should perform this work." Tr. at 1123; See also Tr. at 1091. In short, CY acted prudently and has not been shown to have acted imprudently.

175. To recapitulate, as concerns resolution of issue A.4., on the record as made and, on balance, CTP and Bechtel have failed to adduce evidence which casts a serious doubt that CY acted imprudently during the periods at issue and imprudently incurred decommissioning costs. Even if this was not the case, the record establishes that CY was not imprudent in connection with the decommissioning schedule and that its actions and resulting costs in light of all of the circumstances existing during the period at issue were not imprudent. In this respect, CY has demonstrated that its actions at issue were those of a reasonable utility management, made in good faith, under the same circumstances and at the time were prudent.

**176. A.5. Did CY act prudently in attempting to resolve contract disputes, including through the DOC ADR process?**

This issue is grouped together with issue A.6. below for clarity of discussion.

**177. A.6 Did CY prudently use its contractual remedies under the DOC, including termination of Bechtel?**

**Finding:** Yes. CY prudently exercised its contractual remedies available to it under the DOC, which ultimately resulted in a prudent termination of Bechtel effective July 13, 2003. CY, when appropriate, issued change orders, assessed liquidated damages, withdrew work, used the ADR process, and made reasonable and prudent efforts to be

flexible in its administration of the contract, while at the same time preserving all the benefits of the contract for its ratepayers.

178. CY considered contracting for the decommissioning of the Haddam Neck plant on a “turnkey” basis in the summer of 1998. Ex. CY-19 at 5. The term “turnkey” is generally understood in the construction industry to mean that the contractor agrees to provide construction or industrial services that meet standards of performance established by the owner. Ex. CY-69 at 7. Normally, a scope of work is jointly defined, agreed upon, and incorporated into a contract. The owner then specifies a time of completion. Id. Given the scope and standards of performance (or end state) for the finished product, the contractor then plans, designs, and completes the work for a fixed price, using means and methods of his own choosing. Id. This includes control of his own resources, planning, construction processes, mitigation of risk, and all other decisions within the scope of work that impact the contractor’s cost and schedule. Id. Areas of risk that cannot be well defined at the time of contract, generally, are either set aside for unit pricing, using assumed quantities, or recognized as changes to the work scope. Id.

179. Under a conventional contract, the owner retains the risk and expense for designing the project and actively managing the work. Id. at 9. The owner, therefore, retains control over how and when the contractor performs the work. Id. Under the turnkey approach, the burden and risk for actively designing and managing the work is shifted from the owner to the contractor. Id. The contractor takes on this burden and risk in exchange for the freedom to control its own work and, thereby, to achieve time and cost efficiencies. Id. In this respect, CTP witness Hildebrand agreed that under the DOC, Bechtel was responsible for delivering a plant that was “decommissioned enough, cleaned up enough to permit unrestricted release.” Tr. at 1988-1989.

180. CY’s decision to pursue the turnkey contracting approach to decommissioning was based upon several factors. First, CY appreciated the risk and complexity of the nuclear power plant decommissioning and CY considered it might be more cost-effective to engage the services of a contractor that had already developed the requisite capabilities and expertise for a large-scale decommissioning project rather than attempt to develop those capabilities itself. Ex. CY-19 at 6. Second, CY believed that costs could be significantly reduced and the risks associated with decommissioning could be shifted from the company and its wholesale customers to the contractor. Id. Third, the turnkey approach created attractive incentives in that a turnkey contractor receives a fixed price for completing the job to contractual specifications which gives it strong reason to manage the work in a controlled manner for the purpose of realizing its profit objectives. Id. at 7-8. The fixed price approach also created the potential for an overall cost savings to CY and its customers to the extent that the competitive bidding process would result in direct cost savings and the efficient management of the project by an experienced and capable contractor. Id. at 8. Absent such an approach, CY would have had to assume the responsibilities of planning and managing the decommissioning project itself, which

would result in CY and its wholesale customers bearing the most significant risks of overall project execution, including the risks of cost escalation, unforeseen difficulties, and issues of project staffing availability and expertise. *Id.* at 7.

181. A report commissioned by CY titled “Independent Assessment of Decommissioning Contract Strategies for Connecticut Yankee Atomic Power Company Haddam Neck Plant Final Report, August 25, 1997,” states the following advantages and disadvantages of a turnkey contract approach-- “Simplifies owners role- more responsibility on the contractor; Single Contractor Relationship; Possibly lower radioactive waste disposal costs as a result of contractor volume or leveraging capacity; May encourage and facilitate more of a project mentality and focus- entire project team works to achieve project objectives and end-state conditions; Best opportunity to control project costs and schedule *if all work scope and current plant conditions can be well defined before contract is awarded, and if no changes occur (including any resulting from NRC and other external oversight).*” (emphasis in original). Ex. CTP-216 at CY-DL00368363.

182. Some of the listed disadvantages include: “Contractor is in control. Owner degree of control and/or influence is minimized; High likelihood of difficult owner/contractor relationship and potential for legal disputes; Requires extensive up-front effort (time, expense) to define the scope of work and characterize current plant conditions; More difficult and costly to remove non-performing contractor.” *Id.*

183. CY witness Lemley identified additional benefits to the owner of a turnkey contract: “The owner can rely upon a specialty contractor, one with the manpower and expertise to adequately perform and accept the risk inherent in the work; The owner is not required to develop and/or maintain the skilled personnel required to perform and manage the work, and those skill sets are provided by the contractor; The owner has the relative ease and assurance of dealing with a single design/contracting/management entity; The owner has decreased involvement and responsibility for the details of the project as it develops; The owner gets the benefits of a contractor that has the incentive to perform its work efficiently because of the fixed-price nature of the contract; and [t]he owner has recourse against the contractor if the ultimate performance of the work does not meet specifications agreed to by the parties.” Ex. CY-69 at 8.

184. CY decided that the best way to determine whether contractors were willing to conduct the decommissioning of the plant on a turnkey basis at a reasonable price was to solicit proposals from prospective DOCs. Ex. CY-19 at 9. In September and October of 1998, CY met with six potential DOC candidates to gather information on their level of interest in the decommissioning project. *Id.* From the meetings, CY determined that there were only two organizations that appeared to be potentially interested in becoming the DOC for the CY Plant: Stone & Webster Engineers and Contractors (SWEC) and Bechtel. *Id.* at 10.

185. After working with counsel experienced in large turnkey contract procurement, CY issued a RFP on December 18, 1998 to SWEC and Bechtel. Ex. CY-19 at 10. The RFP stated that proposals were due on February 9, 1999 and required interested bidders to submit a base proposal as well as proposals on certain mandatory alternatives. Id. The RFP allowed a bidder an option to present its own secondary alternate proposal that allowed for unique or unusual conceptual approaches that were not addressed in the primary bid. Id. Recognizing that bidders would need information about the conditions of the Haddam Neck Plant site in order to develop their responses to the RFP, CY arranged for bidders to obtain information about the plant. Id. CY established a document room which provided potential bidders with access to documents and records. Id. at 11. CY established a process by which bidders could request additional documents to be added to the document room. Id. In an effort to facilitate the flow of information to potential bidders, CY permitted potential bidders to descend upon the plant site, set up trailers in the parking lot, and temporarily employ staff on site who could then have efficient access to plant personnel and records as well as engage in site walkdowns, topical briefings and meetings, and perform any other task that would assist in the preparation of informed bids. Id.

186. CY made its personnel available to the bidders to answer any questions regarding site conditions. Ex. CY-68 at 4. CY also conducted a number of topical briefings for the bidders at which site issues were addressed and CY personnel responded to any questions from the bidders. Id. Those briefings included a presentation in which descriptions were provided of CY's site characterization activities to that point, focusing upon on-site radiological conditions, asbestos quantities, and lead and PCBs in paint. Id. On November 25, 1998, a Bechtel manager requested a number of documents from CY, including the NRC Historical Review Team Report, data from other sampling events including unplanned releases from the RWST, storm drain effluent flowing into the discharge canal, and other samples of discharge information. Id. At no time did CY personnel refuse to address issues that were raised by the bidders. Id.

187. As an example of the process through which information was made available to Bechtel and SWEC, on November 23, 1998, CY sent a letter to the bidders that notified them of its desire to conduct additional site characterization work that would characterize areas of the site that will minimize the uncertainty in quantifying radwaste volumes, or labor to decontaminate and demolish buildings, equipment, and structures," and offered each bidder "the opportunity to identify its preference for the next phase of the characterization." Ex. CY-19 at 11; Ex. CY-23. On December 3, 1998, Bechtel sent a letter to CY and declined this opportunity. Bechtel stated that "[b]ased on what we have been provided by [CY], we are confident that we have sufficient information to: 1. Evaluate the nature and extent of radiological contamination present in the facility 2. Classify the affected and non-affected areas 3. Evaluate the worker protection during decommissioning." Ex. CY-19 at 11; Ex. CY-24. During the RFP process, CY observed

that Bechtel's bidding team was present continuously at the site and was very active in the process of collecting information. Ex. CY-19 at 13.

188. On February 9, 1999, CY received initial proposals from both SWEC and Bechtel. Ex. CY-19 at 12. Bechtel's proposal contained a number of notable items. First, Bechtel represented to CY that, if Bechtel were selected, its leadership team for the Project would be composed of "the most experienced and capable individuals in the area of nuclear plant decommissioning, operations support, and contaminated heavy component lift activities." Ex. CY-19 at 12; Ex. CY-25. Bechtel also represented to CY that it had a "vast experience base in the nuclear power industry" and had "demonstrated experience in successfully completing D&D projects at numerous facilities." Id. Bechtel's proposal represented that it was capable and "fully committed to providing CY with all of the resources and corporate support needed to guarantee success." Id. Bechtel represented to CY that by selecting Bechtel, the Company could "assure all interested parties that the Haddam Neck Decommissioning Project will not only achieve all of its stated commitments, but will also become a model for future projects of this nature." Id.

189. Bechtel's proposal set forth an aggressive 54-month work schedule for the completion of decommissioning of the plant. Ex. CY-19 at 13. This work schedule included the transfer of spent fuel and GTCC waste to the ISFSI. Id. Bechtel acknowledged that this schedule was aggressive, but assured CY that Bechtel's site proposal team had thoroughly reviewed, considered, and estimated the specific scope of the work activities. Id. As part of its proposal, Bechtel stated that its "proposal team members spent considerable time onsite researching and quantifying the various potential waste streams" and that "careful review of the plant conditions information and application of prior Bechtel decommissioning experience resulted in estimated waste volumes to be managed and disposed, with which Bechtel has a high degree of confidence." Ex. CY-25, Book 1, Part 1, Section 1.5, page 9-10.

190. CY was impressed by Bechtel's level of sophistication and past experience in nuclear decommissioning. CY witness Lemley described Bechtel as "one of the premier contractors with regard to nuclear work in the world." Tr. at 1108. CY entered into a contract with Bechtel on April 3, 1999 based upon Bechtel's experience, reputation, and the assurances contained in its proposal. The ultimate value of the DOC was \$241 million, including the exercise of an option to reduce the radiological aspect of the site release condition to 10 mrem/year (which is below the NRC site release of 25 mrem/year). Ex. CY-19 at 18. The DOC contained two financial elements, one of which was a \$202 million firm fixed price and the other a \$39 million guaranteed maximum price (GMP) for waste disposal. Id. The GMP aspect of the contract was proposed by Bechtel as a way to have CY and Bechtel share in the benefit (if any) of waste disposal costs that were less than the contractual GMP amount, while capping CY's exposure if costs exceeded that amount. Id. The DOC also included provisions to address the cost

and schedule impacts of groundwater remediation through the change order process. Id. at 18-19.

191. Under the DOC, CY was responsible for providing general oversight of Bechtel's operations in order to assure compliance with the contract standards, including overall safety and compliance with the laws and regulations concerning nuclear material. Ex. CY-69 at 11. Section 7.1 set forth CY's "owner oversight" role: "...both parties hereto understand that CY shall be engaged in oversight of Contractor's Work to promote Contractor's compliance with Contract and license requirements." Ex. CY-21, section 7.1.

192. CY witness Lemley testified that under the DOC, CY was obligated to avoid interfering with the execution of the work for which Bechtel had the contractual responsibility and risk. Ex. CY-69 at 12. CY could observe Bechtel's performance and provide advice, but any attempt to control the management, schedule, sequence of work or application of resources would give rise to the likelihood of a claim by Bechtel for interference and the resulting risk of higher costs for CY and ratepayers. Id. CY witness Lemley testified further that, "it would not have been proper for CY to have interfered with how Bechtel carried out its work because of the turnkey nature of the Bechtel contract." Id.

193. CY had available to it numerous options under the contract to help it control the progress and performance of the work: Agreed Change Orders (Section 2.2.2), Directed Change Orders (Section 2.2.5.1), Withdrawal of Work (Section 9.4), Work Shutdown (Section 9.3), Alternative Dispute Resolution (Section 21.5), Liquidated Damages (Section 4.4.2), and Termination (Section 9.2). CY witness Lemley testified that these options are standard in the construction industry. Ex. CY-69 at 15.

194. Mr. Hildebrand defined an "Agreed Change Order," or ACO, as a written document signed by CY and Bechtel that memorializes additions, deletions, or alterations in the work that, with respect to scope, compensation, schedule, or other matters, are agreed upon between Bechtel and CY and are not the subject of any claim or dispute. Ex. CTP-17 at 1; Ex. CTP-19 at 1. CY witness Heider stated that an ACO implies that some type of discussion and agreement has occurred between CY and Bechtel regarding the subject of the ACO. Tr. at 1496. Most ACOs were comprised of payments based on time and materials, but there was some latitude given to lump sum portions or to other types of payment agreements with Bechtel. Id. at 1495-1496.

195. Mr. Hildebrand defined a "Directed Change Order", or DCO, as a written document memorializing additions, deletions, or alterations in the work that, with respect to scope, compensation, schedule, or other matters, that are *not* agreed upon between Bechtel and CY prior to the performance of the work, as changed, and which, are therefore, the subject of CY's written direction issued and applicable to Bechtel's

performance pursuant to the contract. Ex. CTP-19 at 2. A DCO may or may not be the subject of a claim or dispute. Id.

196. CY witness Heider stated that a DCO is a *unilateral* direction by CY to make some type of change to the contract. Compensation is almost entirely time and materials, although there could be some unit price element if it dealt with waste. Tr. at 1495. Under the DOC, CY could issue a DCO to Bechtel, requiring that certain work be done *without* additional compensation. Ex. CTP-17 at 2.

197. In response to my inquiries, CY witness Smith testified that a DCO under the DOC “is where the owner actually directs the contractor to go perform work under a T&M [time and materials] arrangement.” Tr. at 891. He explained that “Bechtel would bill [CY] on a time and materials basis to perform the scope of the work that [CY] specifically asked Bechtel to perform.” Tr. at 890. He further explained that in terms of the history of this project and the relationship between CY and Bechtel, DCO’s usually were the subject of discussions before they resulted in some type of direction. Id. He pointedly noted, “It doesn’t come out of the blue.”

198. Under the DOC, CY had the right to shutdown the work of Bechtel. The contract provided that, “In the sole judgment of CY, and without prejudice to any other rights or remedies that CY may have under this Contract...CY shall have the right, at its discretion to shut down the Contractor’s operations affected thereby until CY is assured that subsequent operations will comply strictly with Contract requirements, and CY shall not be liable by reason thereof for any Claim for extra compensation or time extension or for reimbursement of any payment resulting therefrom or otherwise.” Ex. CY-21 at CY0001403; Ex. CTP-19 at 10.

199. Under the DOC, CY had the right to supplement and withdraw work from Bechtel. The contract provided that, “In the sole judgment of CY, and without prejudice to any other rights or remedies that CY may have under this Contract...CY may supplement the Work by providing such additional labor or equipment (itself or through another contractor or subcontractor) as it deems necessary to rectify such default or to complete the Work by the date fixed for such completion; or withdraw a portion of the Work designated by CY which, in CY’s judgment, Contractor will be unable to complete by the date fixed for such completion, due consideration having been given to the progress of the Work at the date such notice is given, and complete the Work for Contractor on such withdrawn portion itself or through another contractor or subcontractor.” Ex. CY-21 at CY0001403; Ex. CTP-19 at 11.

200. ADR also was an available option under the terms of the DOC. The contract provided that, “In the event that the parties are unable to resolve any significant issue involving performance, payment, or other rights or remedies of the parties pursuant to the Contract...the parties agree that suitable executive representatives of their respective senior managements shall consult in a good faith effort to resolve the matters in

dispute...any dispute left unresolved after such consultation may, upon mutual assent of the parties, be submitted to non-binding mediation.” Ex. CY-21 at CY0001418; Ex. CTP-19 at 12.

201. Liquidated Damages were to be paid by Bechtel in the event that it failed to achieve key milestones by their corresponding dates. The key milestones included areas of work such as: Site Transition, Steam Generator Removal, Isolation of Spent Fuel from Containment and Reactor Vessel Removal, among others. Ex. CY-21 at CY001391-CY0001392; Ex. CTP-19 at 7-8. The amount of the liquidated damages was \$1 million for any delay in excess of thirty days. Id.

202. CY’s remedy of last resort was termination of Bechtel. The DOC allowed CY to terminate Bechtel for various reasons, including terminating Bechtel if it “should refuse or fail to perform the Work properly in any material respect or disregard laws or regulations or the instructions of CY, or if Contractor should otherwise be guilty of a violation of any material provision of the Contract Documents.” Ex. CY-21 at CY0001401; Ex. CTP-19 at 10.

203. Describing the nature of the DOC in general and the options and remedies available to CY under the contract, CY witness Lemley testified that, “the owner generally provides some mechanism to give them latitude to participate in the contract and the outcome of the contract should they choose to do that...Under the mechanism of the contract, [CY] had that right.” Tr. at 1119. Mr. Lemley emphasized, however, that “each time the owner steps in between the contractor and the contract value, he then undermines the efficacy of the contract price, and the contractor has then to examine the implications of each of those instructions, and as they impact what he would have done otherwise, and affects his efficiency and his pricing”. Tr. at 1120-1121.

204. CTP witness Hildebrand testified that as early as 2000, project disputes between Bechtel and CY were growing. Ex. CTP-16 at 128. He believed that by mid-2001 it should have been evident that the milestone-based DOC was not working and that a contract change was essential to include cost and schedule performance goals in order to help bring the project back on schedule. Id. Mr. Hildebrand testified that, “Had it acted reasonably, CY would have taken decisive action by October 2001 but no later than the beginning of May 2002. This decisive action could have been anything from directing Bechtel as to how to proceed with the project to terminating Bechtel.” Id. at 9.

205. At the hearing, and in response to my inquiry, Mr. Hildebrand testified that ADR should have commenced no later than May 2002 and anytime in the October to May 2002 timeframe. Tr. at 2071. He conceded, however, that initiating ADR in August 2002, rather than May 2002, probably would not have had a greater chance of success. Id. He speculated that “if they could not have a successful ADR, then they perhaps could have designed the decisive corrective action, i.e. termination in this case prior to June 2002.” Id. at 2072.

206. CTP witness Hildebrand believed that CY mismanaged the Haddam Neck project and acted imprudently in the course of administering the DOC by: (1) failing to identify and plan for critical decommissioning challenges (e.g., contaminated groundwater) at a time when they could have been reasonably addressed, (2) mismanaging administration of the Bechtel contract to permit disputes to fester for an unreasonable time without resolution, and (3) failing to resolve Bechtel's non-performance under the contract until it was too late to avoid serious adverse consequences for the project. Ex. CTP-16 at 8-9.

207. CTP witness Hildebrand further testified that a "reasonable owner would have applied a greater sense of urgency to address the numerous issues that had brought D&D to a standstill. As the months passed during the protracted negotiations, the project was falling further and further behind schedule, with Bechtel refusing to perform work and ongoing projects experiencing continued delays. Unmindful of the consequences, CY allowed the negotiations to meander until June 2003, when CY finally terminated ADR discussions." Ex. CTP-16 at 110. He stated that "[b]oth parties had taken rigid positions relative to modifying the contract well before ADR negotiations began. Nevertheless, CY allowed the unfruitful negotiations to continue even though the outcome was almost certain based on the intransigence on the part of both parties. This persistence on an unproductive and ultimately destructive course was not reasonable." *Id.* at 111.

208. In this respect, CTP witness Hildebrand suggests that lessons can be learned by comparison of the decommissioning of the Haddam Neck site with the decommissioning of CY's sister plant, Maine Yankee (MY). Mr. Hildebrand was involved as a consultant in a prudence review of the MY project on behalf of the Maine Public Utilities Commission and the Maine Public Advocate. *Id.* at 112. Based upon his participation in the MY prudence review and the information in this proceeding, he concluded that CY failed to take advantage of the lessons learned from the MY project. *Id.* at 113. He points out that in 1966, MY was organized by most of the same owners as CY and it commenced operation in 1972. *Id.* at 112. In 1997, MY permanently ceased operations and began decommissioning the facility. *Id.* As of January 19, 2005, MY had completed approximately 97% of its decommissioning. *Id.* He faults CY for not taking appropriate corrective measures including termination of the DOC at the earliest signs of trouble and failing to recognize self performance as a viable option, as he claims was the case at MY. *Id.* at 113. He stated that the key difference in the management of the two projects was MY management's attention to substantive matters and lack of adherence to a failed contract or contractor to keep the project on track. *Id.* at 115-116.

209. CY witness Lemley strongly disagreed. He testified, and I concur, that CY acted in accordance with the standards of sound and prudent industry practice in fulfilling its role as the owner and a party to a turnkey decommissioning contract with Bechtel. Ex. CY-69 at 2. The record supports Mr. Lemley's view that "CY rightfully sought to insulate itself, and ultimately ratepayers, from unnecessary and adverse risks. To suggest that CY could have usurped Bechtel's role and responsibility under the contract, or

recklessly terminated Bechtel before all reasonable alternatives had been explored, simply ignores common sense, good contracting practice, and CY's oversight responsibilities in the turnkey relationship established by the contract between Connecticut Yankee and Bechtel." Id.

210. CY witness Lemley testified that, "CY tried to preserve as many benefits of the turnkey contract by adjusting the scope of the work and compensation to be more acceptable to Bechtel within the framework of the turnkey contract." Ex. CY-69 at 20. CY issued over 20 change orders to motivate Bechtel towards performing its contractual obligations for following types of work: groundwater characterization, failed fuel remediation, and ISFSI changes. CY even issued change orders for a "contractor incentive" in an attempt to entice Bechtel to continue progress (See Ex. CY-21, ACO 02-07, at CY0001672). At Bechtel's request for cash flow relief in 2002, CY also acquiesced in creating intermediate milestones, which allowed Bechtel to invoice for work performed under an expedited time frame. In addition, "CY participated in good faith in the management consultation and mediation process that was designed to resolve the disputes with Bechtel." Ex. CY-69 at 21.

211. The various ACOs and DCOs summarized below illustrate and demonstrate CY's attempts to administer flexibly the DOC with regard to contaminated groundwater:

212. ACO 01-02, dated May 7, 2001, directed Bechtel to "[p]rovide necessary engineering, licensing, and other technical support to CY for review of a Groundwater Characterization Work Plan as requested by the CY Site Manager." Ex. BPC-9. The estimated value of this ACO was \$6,000. Id.; Tr. at 1406.

213. DCO 01-04, dated June 6, 2001, authorized Bechtel to perform the June 2001 round of groundwater sampling, including the analysis for HTDs. It was limited to just one round. The DCO was for cost compensation for remediation, storage, transportation disposal, and directly related services associated with contaminated groundwater. Its estimated value was \$72,000 on a time and materials basis and it could be revised if it was more expensive. Ex. BPC-10; Tr. at 1406-1407.

214. DCO 01-06, dated September 27, 2001, the next change order dealing with groundwater, was converted to an ACO by a letter dated October 21, 2001 (Ex. CY-46 at CY118841). Tr. at 1408-1410; Ex. BPC-11. CY and Bechtel agreed that CY, as part of its obligation under contract section 4.1.2<sup>35</sup>, would pay Bechtel to monitor, sample and analyze groundwater three times a year and Bechtel would pay for the fourth. Id. The

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<sup>35</sup> Section 4.1.2 establishes that items related to remediation, storage, transportation, disposal, and directly related services associated with contaminated groundwater shall be treated as Agreed Change Orders or Directed Change Orders with respect to cost and schedule. Ex. CY-21 at CY0001386.

sampling and reporting included HTDs. It also contained a provision relating to compensation for Bechtel's attendance at meetings with both the CTDEP and CY. Compensation was on a time and materials basis with an estimated cost of \$730,000, subject to revision upon actual costs being received from Bechtel. Id.

215. ACO 01-07, dated November 27, 2001, with an estimated cost of \$600,000, was issued for cost compensation of directly related services to contaminated groundwater. Ex. BPC-12. The compensation in this ACO was in addition to the compensation contained in ACO 01-06. This ACO expanded the HTD analysis from nine to 19 wells, provided for mat sump sampling, and provided for project management and other miscellaneous activities directly related with contaminated groundwater. Tr. at 1410-11. ACO 01-07 was revised on September 11, 2002<sup>36</sup> to require the monitoring wells to be installed in accordance with the Malcolm Pirnie Phase 2 Hydrogeologic Investigation Work Plan dated May 2002. The monitoring wells were to be installed at eight locations—MW 118, 119, 120, 121, 122, 123, 124, and 125. Ex. BPC-13 at 1.

216. ACO 02-06, in the amount of \$20,135 and dated April 29, 2002, was issued for non-radiological sampling and analysis of groundwater from monitoring wells associated with Environmental Indicators Areas of Concern as presented in the attachment to the ACO. Ex. CY-21 at CY0001670. The price included craft labor, materials and supplies, lab analysis, subcontractor staff and Contractor Field Non-manual staff to begin work on April 29, 2002. Id. The work was to be performed in accordance with CY approved Contractor procedures and completed by submitting a report of lab analysis to CY on or before June 20, 2002. Id.

217. ACO 02-17, dated September 9, 2002 and followed by six revisions, ordered the commencement of the work associated with conducting geotechnical core borings at the Haddam Neck site directly related to bounding contaminated groundwater. Ex. CY-21 at CY0001690. It stated that CY and Bechtel shall mutually agree to the locations of the core borings and the borings shall have a depth of one foot below the water table at the time of boring in order to obtain a saturated sample; or the borings shall be to a point where impermeable material is encountered in the absence of groundwater. Id. The first revision to ACO 02-17 was issued to compensate Bechtel for previously unanticipated inefficiencies while performing the work pursuant to the original ACO. Id. at CY0001692. The second revision added core boring and temporary well locations numbers 20 through 34 to the scope of the work in the original ACO. Id. at CY0001694. The third revision added well location number 5 to the scope of the work and established the complete pricing schedule applicable to the work involving well location numbers 5 and 20 through 34. Id. at CY0001697. The fourth revision was issued to compensate

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<sup>36</sup> Ex. BPC-13 provides September 11, 2002 as the effective date while Ex. BPC-104 provides an effective date of September 24, 2002.

Bechtel for the work required for well locations number 5, 31, 32, 33, and 34 that commenced on January 18, 2003 and was completed on January 20. Id. at CY0001699. It also affirmed that the pricing schedule set out in Revision 3 remained applicable to those well locations and established a specific price adder for the work. Id. Revision number five added the following work associated with core borings: core borings at sampling location numbers 35 through 43 at locations identified by CY; preparation and submittal of a soil assessment sampling plan for investigating potential contamination under slabs and around subsurface foundations; and upon CY's approval of the Soil Assessment Sampling Plan, performing the work set out and described therein. Id. at CY0001701. The sixth and final revision to ACO 02-17 directed Bechtel to perform core borings at sampling location numbers 44 through 52 at locations identified by CY and to re-mobilize at location number 29 to install a temporary well. Id. at CY0001703.

218. In addition to exercising its rights and remedies under the DOC through this change order process, CY strived to maintain flexibility in its administration of the DOC by actively participating and negotiating with Bechtel under the ADR provisions of the DOC. Beginning in April 2002, CY negotiated with Bechtel to establish an agreed scope and protocol for executive consultations. This negotiation was intended to assure that the ADR process would resolve the contract issues in the most effective manner. CY and Bechtel agreed on the ADR protocol in June 2002 and the ADR began in July 2002. Ex. CY-63 at 66; Ex. CTP-25 at 7.

219. CY and Bechtel mutually consented and initiated a formal ADR process in July 2002 to develop a path forward for the work activities and to resolve outstanding commercial disputes in accordance with Section 21.5 of the DOC. Ex. CY-63 at 79. The first phase of the ADR process was referred to as "Executive Consultations" and proceeded upon two distinct tracks. Id. at 81; Ex. CTP-157. One track involved meetings between CY and Bechtel technical staffs to attempt to develop a "path forward" for the completion of the decommissioning project, including the D&D of the structures and equipment and the remediation of groundwater contamination. Ex. CY-63 at 81. This track was critical because of the fundamental disagreement between the parties concerning the impact of groundwater contamination on decommissioning activities. Id. Agreement on a path forward from a technical perspective was an important predecessor to settlement of the commercial disputes. Id. The Bechtel and CY technical teams developed two paths forward that would allow the decommissioning work to proceed, including addressing the effect of sr-90 in contaminated groundwater. Id.

220. The second track in the Executive Consultation process addressed financial and commercial matters. Id. CY, led by Mr. Russell Mellor, CY President and CEO, and Bechtel, led by Mr. E. James Reinsch, President of Bechtel Nuclear, met to discuss DOC issues. These discussions focused on Bechtel's claims that it was entitled to additional payments for costs that it incurred in performing work under the DOC and CY's claims that it was entitled to liquidated damages for Bechtel's delays in performance. Id. at

81-82. CY envisioned that, when the technical groups completed their discussions, the financial/commercial teams would address both the parties' specific claims and any revisions that might be appropriate to the terms of the DOC to facilitate proceeding with the decommissioning work in accordance with an agreed path forward. Id. at 82.

221. During the first phase of ADR, CY and Bechtel agreed to proceed with nonbinding mediation to resolve Bechtel's claim regarding spent fuel inspection and repair. Id. CY believed that mediation could be effective in resolving this single issue. Id. CY also thought that this mediation would provide an opportunity to determine if mediation could be effective in resolving other more complex ADR issues. Id. Two mediation sessions were held, but resolution was not reached. Id. By early November 2002, the second mediation session associated with the fuel inspection and repair claim had ended with the parties at an impasse. Id. CY believed that mediation could not be used to resolve more complex ADR issues. Id. It also became clear to CY that continued negotiations between teams headed by Mr. Mellor and Mr. Reinsch were unlikely to resolve the more complex ADR issues. Id. Mr. Reinsch was not willing to move off of Bechtel's central demand for the fundamental restructuring of the DOC. Id. CY negotiators were not able to impress upon Bechtel CY's firm resolve not to relieve Bechtel of its turnkey obligation when, in CY's view, there were existing remedies for Bechtel to complete its work under the DOC's terms. Id. at 82-83. CY believed that the best hope for a resolution was to involve more senior executives from both parties in the negotiation. Id. at 83. Toward this end, in late November 2002, Mr. Bruce Kenyon, Chairman of CY's Board of Directors, and Mr. James Crowe, CY's new President, as well as Mr. Scott Ogilvie, President of Bechtel Power and Fossil, became involved in the effort to reach a "global settlement" of the disputes. Id.

222. During the "global settlement" discussions, the parties developed two D&D approaches to complete the project. Ex. CTP-16 at 109. These essentially were the Bechtel original plan of decon, survey, and demolish, and the wholesale removal plan, i.e., removing the structures from the site as radioactive waste. Id.; Ex. CTP-122. From these plans, the parties developed a third plan called the "Hybrid Plan." Ex. CTP-16 at 109. The Hybrid plan was a multistep process including: (1) determination of DCGLs, (2) removal of some structures as radioactive waste, (3) decontamination of structures below grade, (4) performance of Final Status Survey (FSS), (5) remediation of groundwater, (6) NRC confirmation of surface release limits for remaining structures, (7) termination of the license, and (8) unregulated demolition of the structures. Id.

223. Over the next several months, both parties submitted global settlement "term sheets." Ex. CTP-164, 165, 166. In February 2003, Bechtel submitted a global settlement sheet to CY that was based on the Hybrid Schedule. Ex. CY-64 at 7. Bechtel's term sheet sought an additional \$212 million from CY to complete the project following the Hybrid Schedule. Id. This amount was in addition to the unpaid DOC balance of about \$60 million, resulting in a total value of about \$272 million to complete

the DOC work. Id. This total included about \$80 million for critical path delays and about \$49 million for claims for additional compensation, which included a significant increase in waste costs. Id.

224. Bechtel's term sheet also included numerous changes to the terms and conditions of the contract, which in CY's view had the effect of reallocating project risks from Bechtel to CY. Id. For instance, Bechtel proposed to eliminate its obligation to perform all tasks necessary to achieve Unrestricted Release, proposing instead to perform a series of specified tasks. Id. CY would be responsible for filling in the gaps as Bechtel identified them and Bechtel would no longer bear the risks associated with performing all of the decommissioning work. Id. Additionally, Bechtel proposed to exclude significant elements from the scope of the work, including the removal and decontamination of certain areas such as the one mile-long discharge canal and the intake structure; work other than radiological decontamination needed to clean up concrete to meet onsite disposal requirements; responsibility to perform work on the Resource Conservation and Recovery Act corrective action program (RCRA CAP); and work not completed by the end of 2007. Id. at 7-8. Bechtel proposed to increase the kinds of work for which it could obtain additional compensation, over and above the contract price. Id. at 8. Bechtel sought to be paid extra for work associated with contaminated soil, regulatory agency action (or inactions), unforeseen problems, *force majeure* events, and CY actions that might affect Bechtel's work. Id. Finally, Bechtel sought to eliminate all liquidated damage provisions for occupational, radiological, and environmental safety performance, as well as schedule. Id.

225. On March 24, 2003, CY advised Bechtel that its term sheet was unacceptable. Ex. CY-64 at 9; Ex. BPC-37 at 20. CY indicated that it was not willing to consider a settlement that was based upon the complete restructuring of the parties' obligations under the DOC, especially in light of CY's belief that the work could proceed despite the presence of contaminated groundwater. Ex. CY-64 at 9. CY witness Heider testified that the changes contained in Bechtel's term sheet "would have required CY to bear millions of dollars of costs that were covered by the DOC's fixed price and guaranteed maximum price provisions and would expose the Company and its customers to virtually unlimited risk of further cost increases." Ex. CY-63 at 86.

226. CY asked Bechtel to submit a revised term sheet and Bechtel indicated on May 14, 2003 that its revised response would not be substantially different from its February offer. Ex. CTP-165 at CY186168. CY then submitted its global settlement term sheet to Bechtel on May 22, 2003. Ex. CY-64 at 9; Ex. CTP-165 at CY186168. CY structured the proposal to provide monetary value to Bechtel that would increase if Bechtel completed decommissioning in accordance with a project completion schedule with a completion date of July 1, 2006. Ex. CY-64 at 9-10. Although this date was earlier than the mid-2007 end date projected in the Hybrid Schedule, CY explained that it could be achieved if another approach developed by the technical teams was employed--removing

structures to three feet below grade for shipment offsite, rather than decontaminating and surveying them before demolition and onsite disposal of concrete rubble. Id. at 10. This was one of the paths forward considered by the technical teams during the Executive Consultation phase of ADR and is the approach CY has successfully employed since terminating Bechtel. Id. CY believed that this approach would reduce Bechtel's cost and risk of completing decommissioning by decreasing the work, shortening the schedule, and facilitating regulatory compliance. Id.

227. CY's term sheet included the following principal terms: CY would pay Bechtel \$7 million to liquidate Bechtel's non-delay claims and drop \$4 million in claims for compensation from Bechtel; CY proposed to make additional payments of \$10 million to Bechtel as an incentive to accomplish key project activities in a manner that supported the achievement of the schedule; CY proposed to remove the RCRA CAP and contaminated soil removal from Bechtel's scope of responsibility; CY provided financial incentives to Bechtel to remove all structures from the site that included sharing in the increased waste cost by increasing the guaranteed maximum price for waste disposal by \$20 million, plus an additional \$5 million that could be earned as buildings were removed from the site in a timely manner; and CY proposed to modify the warranty and liquidated damage provisions of the DOC, replacing the existing warranties with warranties that supported the timely completion of key decommissioning activities and new liquidated damage provisions that would reduce Bechtel's responsibility for liquidated damage payments by \$6 million. Ex. CY-64 at 10-12.

228. In the aggregate, CY's term sheet envisioned a net cost to CY of about \$50 million and a value to Bechtel in excess of \$80 million. Ex. CY-64 at 12. Significantly, CY did not propose to modify the provisions of the DOC that gave Bechtel the right to additional compensation for its costs in addressing the groundwater contamination, including any delays in the schedule caused by the inability to remediate groundwater contamination to acceptable standards. Id. Thus, CY's term sheet continued to envision that CY would ultimately bear the financial risks associated with groundwater. Id. Bechtel would have the responsibility to clean up the groundwater contamination but would be assured of payment for its efforts. Id.

229. On June 6, 2003 Bechtel rejected CY's global settlement term sheet offer and made a counter-offer. Ex. CTP-166. Bechtel reduced the amount of the additional payments it had demanded in its original term sheet from about \$210.1 million to about \$145.3 million; however, the amount in its counter-offer was \$90 million more than CY's offer. Ex. CY-64 at 12. This proposal, like Bechtel's first proposal, sought to exclude large portions of the decommissioning work altogether from the scope of the DOC. Id. Like its first term sheet offer, Bechtel's second term sheet continued to require the shifting of significant risks and responsibilities to CY in a number of areas, including: (a) Bechtel's proposal to charge additional amounts for the disposal and transportation of debris off-site, not subject to any guaranteed maximum price or other cap; (b) Bechtel's

proposal to charge CY on a time and materials basis, based upon rates set out in the DOC, for the disposal of all contaminated soil located more than three feet below grade level, with no limit; (c) Bechtel's proposal that CY pay for the costs of dredging the discharge canal, which was necessary for the removal of the RPV by barge. Id. at 13. Bechtel's June 6 offer contained most of the same exclusions from the scope of Bechtel's responsibility in its February offer and additional exclusions: the complete removal of the intake structure, fill of substructures after demolition, decontamination, if necessary, of exteriors of foundations, removal of non-radioactive systems located more than three feet below grade, and any impacts of leakage from the Spent Fuel Pool. Id. at 13-14.

230. Bechtel's counter-offer sought to reduce the standard by which "Final Acceptance" of the work was measured. Ex. CY-64 at 14. Bechtel proposed to limit its responsibility for Final Acceptance to the decontamination of residual radiation attributable to interior surfaces of substructures left on site and to soil near the surface (within three feet of grade level), and to apply the full contractual standard of 10 mrem per year to contamination from these sources. Id.

231. CY analyzed Bechtel's second offer and concluded that, like Bechtel's first offer, it was unacceptable. Ex. CY-64 at 15. CY concluded that Bechtel was unwilling to proceed on a basis that bore any significant relation to the commitments it undertook in the DOC. Id. On June 10, 2003, Mr. Kenyon advised Bechtel that CY was terminating settlement negotiations. Ex. CTP-168. On June 13, 2003, CY notified Bechtel that it was exercising its right to terminate the DOC for default, unless Bechtel's defaults were cured within thirty days. Ex. CY-56; Ex. CY-64 at 16. Because Bechtel's second offer required CY to waive its claims that Bechtel had defaulted on its obligations under the DOC, CY felt it had no choice other than to terminate the DOC. Ex. CY-64 at 16.

232. Throughout the course of the global settlement negotiations, CY took many steps to accelerate the progress of the decommissioning and dismantlement of the project. For example, in June 2002, Bechtel had stopped the use of a second shift of workers performing the RPV Internals cleanup work in the Containment Building. Ex. CY-64 at 5. This work was of the critical importance. In an attempt to establish a positive tone for the Global Settlement discussions, CY agreed in December 2002 to pay Bechtel for the incremental costs of restoring the second shift, subject to a reservation of its rights to argue that Bechtel should bear these costs. Id. This accommodation, which was documented by a letter in March 2003, Ex. CY-36, ensured that the critical work in Containment associated with the RPV removal was not delayed further by the continuation of the ADR process. Ex. CY-64 at 5.

233. In September 2002, Bechtel had refused to perform spent fuel inspection and repairs that was the subject of a DCO. Ex. CY-63 at 85. The issue was mediated unsuccessfully between October and November 2002. Id. Because of the importance of this work to the transfer of spent fuel to the ISFSI, CY agreed in December 2002 to pay Bechtel for third party costs associated with inspection and repairs of spent fuel

assemblies, subject to a reservation of rights. *Id.* This accommodation, which was documented by a letter in March 2003, Ex. CY-42, ensured that fuel transfer was not delayed further by the continuation of the ADR process. *Id.* at 85-86.

234. In December 2002, CY agreed to pay Bechtel for reimbursement of third-party costs associated with the characterization and reconstitution of failed fuel. Ex. CY-64 at 6. This accommodation was documented by a letter set in March 2003. Ex. CY-42. CY expected that this step, which it believed was not required by the DOC, would encourage Bechtel to achieve progress in the preparations for the transfer of fuel to the ISFSI, as well as demonstrate CY's willingness to negotiate a reasonable resolution of the issue. Ex. CY-64 at 6.

235. CY witness Lemley described the decision to terminate Bechtel for cause as "the method of absolute last resort, as it ensures the owner will expose itself to much greater risk." Ex. CY-69 at 17. He testified that termination "all but guarantees litigation" yet "does *not* guarantee a better outcome." *Id.* (emphasis in original). He testified that a "reasonable owner would approach such a decision with great gravity and trepidation, examining all alternatives before proceeding with termination." *Id.* In his opinion, termination was "a decision that would be taken very carefully by an owner who had that responsibility." Tr. at 1168.

236. Mr. Lemley testified that, "[t]hroughout 2002 and early 2003, CY had ample reason to believe that Bechtel was acting in good faith and desired to resolve the parties' disputes in a manner that was consistent with the turnkey contract that it had entered. CY would have reasonably concluded from Bechtel's management consultations and willingness to mediate that a substantial portion of the benefits of the turnkey contract with Bechtel could be preserved." Ex. CY-69 at 18. Mr. Lemley further testified that a "prudent utility would always be concerned about any action that would raise costs for ratepayers. It was therefore reasonable for Connecticut Yankee to be concerned about giving up the benefits of the turnkey contract." *Id.* at 20.

237. CY witness Heider testified that, "CY wanted to preserve the benefits of the DOC, which had great value to CY and its customers...CY exercised all reasonable ADR alternatives in an attempt to have Bechtel complete the work in accordance with the DOC." Ex. CY-63 at 68. Mr. Heider testified further that CY recognized that terminating the DOC would cause it to lose the advantages of the Turnkey agreement and require it to take on the cost and performance risks of completing decommissioning itself. *Id.* Contrary to Mr. Hildebrand, Mr. Heider believed that "termination of Bechtel in October 2001 or May 2002, or pursuing some form of Mr. Hildebrand's alternative "decisive action" at that time, would have amounted to precipitous action on CY's part, based on inadequate and superficial consideration of the implications." *Id.* at 69.

238. Concerning Mr. Hildebrand's testimony about CY's administration of the DOC, CY witness Lemley testified that, "Mr. Hildebrand never acknowledges this risk [the risk

of a Bechtel claim of interference] in his testimony and admitted in his deposition that he never even attempted to quantify the costs and risk associated with CY directing Bechtel to act in the manner that he says would have been prudent... Taking into account all of the circumstances, I don't believe that it is realistic to expect that CY could have resolved its disputes with Bechtel more quickly." Ex. CY-69 at 15-16. On the record as made, and, on balance, I agree.

239. In the instant case, CTP does not question CY's prudence in entering into the DOC in the first place. Neither does Bechtel in so many words. It is the prudence of CY's administration of the DOC as early as October 2001 and not later than May 2002 which CTP says is imprudent. Bechtel argues that after the parties failed to agree on the terms of an ACO with respect to groundwater contamination, CY was imprudent for not issuing a DCO for groundwater remediation and services on a time and materials basis, and for terminating the contract. BPC IB at 111, 118, 119. And, as discussed earlier, Bechtel faults as imprudent CY's current efforts since termination of Bechtel to remediate groundwater contamination.

240. CTP witness Hildebrand testified that a prudent utility manager would have monitored and characterized groundwater long *before* pursuing a DOC. *However, as previously discussed under A.2., he conceded at the hearing that the focus of CTP's imprudence allegations is limited to the timeframe of October 2001 to no later than May 2002.* Tr. at 1998; Ex. CTP-16 at 9.

241. Determining whether a given course of action is prudent or imprudent is not an easy task, as can be discerned from the preceding discussion of the previous prudence issues. This is especially so when that course of action involves decisions made in an acrimonious environment and under an extensive and complicated commercial contract. The settled principles of prudence analysis tell us that management decisions are not considered on the basis of 20/20 hindsight. Yankee Atomic Electric Co., 65 FERC ¶63,001 at 65,003, *aff'd in part*, 67 FERC ¶ 61, 318 (1994); New England Power Co., 31 FERC ¶61,047 at p. 61,084 (1985), *aff'd sub nom. Violet v. FERC*, 800 F.2d 280 (1st Cir. 1986). The prudence of the utility's actions and the resulting costs are reviewed in light of all of the circumstances existing at the time the challenged costs were actually incurred or at the time the utility became committed to incur those expenses. *Id.*

242. On balance, and on the record as made, I find that CY's course of action under the DOC was not one that "rigidly and mechanically" administered the contract, as the proponents aver. *E.g.*, Ex. CTP-16 at 125. The record is replete with examples of CY's attempts simultaneously to move the work under the contract forward, maintain flexibility in its administration of the contract, and preserve the benefits of the turnkey contract for its ratepayers. The change orders discussed above are a small fraction of the total change orders and contract amendments CY issued throughout the life of the contract. In total, CY issued more than forty change orders and four contract amendments. Seventeen of those change orders were associated with contaminated

groundwater. Ex. CY-20 at 43; Tr. at 1839-1842. In addition, CY used the ADR provisions of the DOC in the hope of resolving various individual claims, while the “global settlement” negotiations were carried out in the hope of reaching an overall agreement as to Bechtel’s claims. CY was more than willing to adjust the scope of work, engage in negotiations, and otherwise work towards the successful completion of the turnkey contract.

243. To say that CY was imprudent for not taking “decisive corrective action” by October 2001 or, at least by May 2002, overlooks the fact that during the months preceding this timeframe CY was continuing to pursue solutions under the terms of the DOC to the problems between it and Bechtel. ACO 01-02 was issued on May 7, 2001 so that the contaminated groundwater issue could progress towards resolution under the contract. Ex. CY-21 at CY0001651. DCO 01-04 was issued on June 6, 2001 to compensate Bechtel for the next round of groundwater quarterly sampling. Id. at 0001654. In June 2001, the DOC was amended to resolve the year-long dispute surrounding additional costs associated with failed fuel. Id. at CY0001734-35. ACO 01-05 was issued on September 18, 2001 and added intermediate milestones for disposal of the Reactor Pressure Vessel. Id. at CY0001655.

244. In October 2001 and beyond, the timeframe when CTP witness Hildebrand believes CY should have taken “decisive corrective action,” CY was still trying to preserve the benefits of the DOC. On October 21, CY issued ACO 01-06 to pay Bechtel for quarterly testing of contaminated groundwater. Id. at CY0001656. On November 27, 2001, CY issued ACO 01-07 to compensate Bechtel for analyses in ten additional wells. Id. at CY0001658. On April 4, 2002, Bechtel requested that ADR be initiated to resolve the key pending commercial issues that were threatening the contract. Ex. CTP-106 at CY0001891-97. On April 11, 2002 CY informed Bechtel that it would pursue executive consultation pursuant to Section 21.5 of the Contract for only two issues (the Steam Generator Force Majeure Claim and the GPMMA claim) and that the other issues raised by Bechtel had not reached a point at which a formal ADR process is necessary. Ex. CTP-156 at KJH-E-0033275. In November 2002, the global settlement discussions between CY and Bechtel senior executives began. Ex. CY-20 at 46; Ex. CTP-162 at BML00096803; Ex. CTP-163 at KJH-E-0041186-87.

245. CY’s actions taken under the contract during the timeframe leading up to the termination of Bechtel, and particularly those highlighted above between October 2001 and May 2002, are ample proof that CY was doing what it could within its rights under the DOC to flexibly administer the contract through the change order process, ADR, and the global settlement discussions. When all else failed, the circumstances were such that CY was constrained to terminate the contract. Consequently, I find and conclude that CY acted as a prudent manager and utility based upon all of the circumstances at the time, in connection with the exercise of its contractual authority under the DOC with Bechtel, including its decision to terminate Bechtel. In short, CY prudently exercised the

contractual remedies available to it under the DOC, which ultimately resulted in termination of Bechtel effective July 13, 2003.

246. Bearing this in mind, and with regard to CTP witness Hildebrand's suggestion that there are lessons to be learned from the MY decommissioning, I further find that the broad parallels and few details which Mr. Hildebrand sketches provide a tenuous and unconvincing comparison. The fact of the matter is that SWEC, the MY DOC, was terminated for insolvency: Bechtel was terminated for failure to perform under the terms of the CY DOC. Ex. CTP-16 at 116. At the hearing, CY witness Thomas, who personally participated in the MY management determination to terminate SWEC, testified that if MY had not believed that SWEC was insolvent, MY would not have terminated SWEC in May 2000, despite the additional reasons (other than insolvency) MY cited in its termination letter. Ex. CTP-211; Tr. at 873-874. In that letter to SWEC, MY listed as additional reasons for terminating SWEC: "failure to perform material obligations", "failure to provide an acceptable Project Schedule", and "failure to make adequate progress in completion of the Work". Ex. CTP-216. Mr. Thomas pointed out that it was SWEC's insolvency, and not its failure to perform under the contract, that prompted MY to terminate SWEC in May 2000. In other words, had SWEC never become insolvent, MY's termination of SWEC would have occurred later than it actually did and not "at the earliest sign of trouble" as Mr. Hildebrand testified was the case. Ex. CTP-16 at 113. In the circumstances, Mr. Hildebrand's suggested comparison cuts no ice and is not entitled to any material probative value.

247. Accordingly, I find that CY did what a reasonably prudent utility manager would be expected to do in the circumstances and at the time—voice concerns, seek to remedy them, when appropriate, exercise its authority under the DOC and issue change orders to compensate Bechtel for certain activities in an effort to ameliorate problems on the ground, and to pursue mediation, consultation, and alternate dispute resolution with Bechtel in an effort to expedite progress and complete decommissioning. As noted above in connection with other facets of these prudence issues, CY witness Lemley cogently observed, "I go back to the level of sophistication of the contractor and the owner in this situation, and I don't believe it would have been prudent for the owner to step into Bechtel's shoes and start directing how Bechtel should perform this work." Tr. at 1123; See also Tr. at 1091. I agree with CY witness Lemley that "CY rightfully sought to insulate itself, and ultimately ratepayers, from unnecessary and adverse risks. To suggest that CY could have usurped Bechtel's role and responsibility under the contract, or recklessly terminated Bechtel before all reasonable alternatives had been explored, simply ignores common sense, good contracting practice, and CY's oversight responsibilities in the turnkey relationship established by the contract between Connecticut Yankee and Bechtel." Ex. CY-69 at 2. Mr. Lemley also cogently noted that "Connecticut Yankee had to consider the fact that if it terminated Bechtel before the cleanup was completed, as Mr. Hildebrand advocates, Connecticut Yankee and ratepayers would be saddled with the added risk and liability of the RPV cleanup effort."

Ex. CY-69 at 19. These findings and conclusions apply with equal force to Bechtel's contentions that CY was imprudent in connection with characterization and remediation of groundwater contamination during the term of the DOC and until Bechtel's termination, including the alleged failure to issue a DCO when an ACO could not be agreed upon; and to Staff's contentions, based upon review of documents of record, that CY acted imprudently with regard to administration of the DOC (and in other respects).

248. On the record as made and, on balance, as concerns resolution of issues A.5. and A.6. in particular, and, overall, the six prudence issues adjudicated by this decision, I find that the proponents have failed to adduce evidence which casts a serious doubt that CY acted imprudently during the periods at issue and imprudently incurred decommissioning costs. Even if this was not the case, I find that CY has shown that it acted prudently in connection with the decommissioning schedule and that its actions and resulting costs in light of all of the circumstances existing during the period at issue were not imprudent. Stated differently, CY has demonstrated that its actions at issue were those of a reasonable utility management, made in good faith, under the same circumstances and at the time and were prudent.

## **B. Decommissioning Cost Calculation**

249. **B.2. What escalation rate should be applied to restate decommissioning costs estimated in 2003 dollars to current year dollars?**

**Finding:** I find that Staff's recommended 20-year average GDP price deflator of 2.38 percent reaches an end result which is just and reasonable.

250. CY witness Taylor recommends using the GDP Implicit Price Deflator, as published by the United States Bureau of Economic Analysis for calendar years 2000, 2001, and 2002, as an estimate of the escalation factor for decommissioning costs. Ex. CY-15 at 12-13. In general, the GDP Implicit Price Deflator is an economic metric that accounts for inflation by converting output measured at current prices into constant-dollar GDP. The GDP deflator shows the rate of price change in the economy as a whole. Ex. S-1 at 4. This measure is different from a consumer-based index as it measures all goods and services in the economy, not just a basket of consumer-related goods. Ex. CY-15 at 12.

251. To escalate projected future costs, CY witness Taylor proposes using the 43-year average GDP price deflator (from 1960 through 2002) of 3.87 percent. *Id.* at 13. CY witness Taylor testified at the hearing that she thinks a longer period of time is a better choice "where there are different economic rates and interest cycles", that the 43-year period encompasses the 1960s "which might be more like today with lower inflation, lower interest rates", and that the longer period also encompasses the 1970s "which was a period of higher inflation." Tr. at 785. She explained further that she believes her recommended time period is a "common measure of inflation" and is "consistent with the

previous case for Yankee Atomic.” Tr. at 785-786. Additionally, CY witness Taylor stated that she does not believe her recommendation of the 43-year time period to be inconsistent with any extant Commission policy. Tr. at 786.

252. CY witness Thomas also supports the use of a 43-year average GDP price deflator, based upon CY witness Taylor’s recommendation. Tr. at 865. He testified that 43 years is a “reasonably long period of time that covers many economic cycles for costs that have an uncertain amount of time going forward.” *Id.* In response to my inquiry, Mr. Thomas testified that CY’s decommissioning cost estimate going forward is approximately \$603 million and, when escalated, increases to \$730 million for a total increase of \$127 million. He compared CY’s cost estimate to Staff’s recommendation based on a 2.3 percent escalation rate. He noted that Staff’s recommendation would yield an increase of \$89 million, or some \$38 million less than CY’s figure based upon its 3.86 percent escalation rate. Tr. at 869.

253. Staff Witness Radel points out that CY witness Taylor provides no reason or explanation in her pre-filed testimony for her recommendation of the 43-year average. Ex. S-1 at 4. Staff witness Radel recommends using the 20-year average GDP price deflator (from 1985 through 2004) of 2.38 percent for several reasons. *Id.* First, Staff witness Radel believes that using a GDP deflator that includes unusually high or low inputs will result in either an over-collection or under-collection compared to CY’s actual costs. *Id.* at 4-5. Staff witness Radel stated that using a 43-year average incorporates GDP deflator rates from the 1970s and the early 1980s when inflation was extremely high. By comparison, the 20-year average deflator is less than half the deflator rate from 1969 to 1982 and is more representative of the current GDP deflator rates. *Id.* Second, Staff witness Radel believes that CY should file to update its actual costs when decontamination and dismantlement are completed; therefore, if the GDP rates do not remain low, as she anticipates, in its next filing CY can propose a change in the escalation rate for the remainder of the spent fuel storage period. *Id.* at 5. Third, Staff witness Radel stated that 20 years is representative of the remaining term of the spent fuel storage period, as decommissioning, spent fuel storage, and dissolution of the company is projected to be complete in 2023. *Id.* Finally, Staff witness Radel believes that Commission precedent supports using 20 to 25 years as the appropriate length of time to generate a reasonable inflation trend. *Id.*

254. The Commission precedent to which Staff witness Radel refers is contained in three separate opinions. The first case cited by Ms. Radel, Opinion No. 350, Boston Edison Company (Boston Edison), 52 FERC ¶ 61,010 (1990), was reversed by the United States Court of Appeals for the District of Columbia, 21 F.3d 1130 (1994). The reversal was made on grounds dealing with the Commission’s interpretation of the contracts at issue. Because of this, the Court did not address the merits or the Commission’s choice of methodology for calculating monthly decommissioning charges or escalation rate based upon a 25 year average.

255. In Indiana & Michigan Mun. Distrib. Assoc. and City of Auburn, Ind. (Indiana & Michigan), 59 FERC ¶ 61,260 (1992), the second case referenced by Ms. Radel, the Commission was confronted with numerous issues, one category of which related to depreciation and decommissioning expenses for two nuclear units. The Commission disagreed with the finding in the initial decision to reduce the cost escalation rate from 6 percent to 4 percent because the determination was based upon the Consumer Price Index (CPI) for 1982-1986. The Commission noted that the company's witness testified that the average increase in the CPI for the period 1965-1985 was, in fact, 6 percent. Id. at 61,971. The Commission adopted the 6 percent cost escalation rate because "a 20-year average incorporates a wider range of variations in the CPI and is, therefore, arguably a more reliable indicator of the general inflation rate than a four-year average ... [m]oreover, use of a 20-year averaging period is in line with the 25-year averaging period we adopted in Opinion No. 350." Id.

256. In the third case cited by Ms. Radel, Jersey Cent. Power & Light Co., 60 FERC ¶63,012 (1992), the appropriate method by which to determine the decommissioning expense level for two nuclear facilities was at issue. Staff reiterated its recommendation in Boston Edison, advocating the use of the "fund analysis" approach. The presiding ALJ, after having recognized "the strengths inherent" in that approach, adopted the fund analysis approach, describing it as "a comprehensive method of allocating decommissioning fund expenses over time." 60 FERC ¶63,012 at 65,122. Having chosen the appropriate method, the presiding ALJ proceeded to decide the appropriate averaging period for calculating the cost escalation rate. Relying on both Boston Edison and Indiana & Michigan, the ALJ rejected a four year averaging period and adopted a period that fell "approximately in the middle" of the 20-year CPI average (Indiana & Michigan) and the 25-year CPI average (Boston Edison). Id. at 65,123.

257. Given the Commission's desire for a "levelized charge" that minimizes misallocation of decommissioning expense responsibility among generations of customers, I find that Staff's recommended 20-year average GDP price deflator of 2.38 percent reaches an end result which is just and reasonable. This time period is more consistent with Commission precedent than the extended period of 43 years put forth by CY. Furthermore, using a 20-year average GDP price deflator is more representative of the remaining term for Connecticut Yankee's continued decommissioning activities of approximately 18 years.

### **C. Collection/Allocation of Costs**

#### **258. C.1. What Future Filings Should CY be Required to make?**

##### **Findings:**

- I find that attempting to predict the outcome of the state court litigation between CY and Bechtel is difficult and uncertain. Rendering a decision as to CY's specific proposals

concerning the effects of the court decision on the decommissioning fund and the application of the proceeds by CY in the Bechtel litigation would be premature at this time. I also find it premature to make a finding as to CTP witness Laros' recommendation that CY should be allowed to recover only for future costs which the Commission finds to have been prudently incurred. This issue also can be best dealt with if and when CY seeks Commission authorization to recover any future expenditures.

● As concerns costs that may be incurred with regard to the Bechtel litigation, I agree with Staff witness Radel that it is appropriate to require the following:

(1) CY shall make a filing to true up the decommissioning fund and to reconcile all disbursements during the corporate wind-up when plant D&D is complete;

(2) if CY prevails in the state court litigation with Bechtel, CY shall make a filing within six months of the conclusion of the litigation to flow through any net proceeds to the decommissioning fund; (3) if, however, CY is unsuccessful in the litigation with Bechtel, CY shall file an appropriate motion with the Commission to justify any required payments to Bechtel or the court.

259. In the above respect, Staff witness Radel further recommends that CY be required to make a filing to true up the decommissioning fund and to reconcile all disbursements during the corporate wind-up when plant decontamination and dismantlement is complete. This true-up would include a reconciliation of all decommissioning and corporate disbursements. Ex. S-1 at 6-7. Staff witness Radel further urges that CY should make a filing within six months of the conclusion of the litigation to flow through any net proceeds to the decommissioning fund, if CY prevails in the state court litigation with Bechtel. In the alternative, if CY is unsuccessful in the litigation with Bechtel, Staff witness Radel recommends that CY pay any amount owed to Bechtel from the fund, but not attorney's fees or punitive damages. *Id.* at 7. Staff witness Radel also recommends that CY make other filings to change its rate schedules to recognize other material changes in decommissioning costs, such as the result of CY's litigation with the United States Department of Energy and the dismantlement of the ISFSI. *Id.*

260. In its PTB, CY states that it does not object to the recommendations of Staff concerning such future filings. CY PTB at 19. "CY agrees that it makes sense to reflect the impact of any resolution of the Bechtel litigation<sup>37</sup> in Connecticut Yankee's decommissioning charges." Ex. CY-66 at 10. However, CY witness Thomas proposed that any proceeds that CY might receive in the litigation with Bechtel should be applied

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<sup>37</sup> Bechtel has instituted a wrongful termination lawsuit against CY in Connecticut Superior Court in which it seeks \$93.5 million in damages. CY has filed a counter-claim which alleges Bechtel's failure to perform its obligations under the DOC. Bechtel IB at 2-3; Ex. CTP-115.

as follows: “first, to pay taxes on such proceeds, then to reimburse CY for reasonable claim-related expenses and legal fees not otherwise paid out of the decommissioning fund, then to reduce subsequent decommissioning collections, and finally, if any amounts remain, to reimburse customers to the extent no further decommissioning collections are required.” Ex. CY-66 at 10. CY witness Thomas also testified that any amounts due to or from CY after resolution of the Bechtel litigation “should be reflected only through adjustments to prospective decommissioning charges, not through retrospective adjustments to past decommissioning charges, through surcharges or refunds.” Ex. CY-66 at 12. However, in its post-trial brief CY plainly states that it “does not object to such a requirement” that “CY be required to make filings with the commission in the future to reflect the outcome of the ongoing litigation with Bechtel.” CY IB at 141.

261. With regard to CY witness Thomas’s specific proposal, I agree with Staff that predicting the outcome of the Bechtel litigation is difficult and that the “impact of that decision on the decommissioning fund can be best determined when it happens.” Staff PTB at 10. I find that such crystal ball-gazing would be a wholly speculative endeavor. Consequently, I further find that rendering a decision regarding Thomas’s specific proposals for possible application of the proceeds by CY in the Bechtel litigation is premature. In other respects, CY and Staff are in agreement as to the need for certain future filings.

262. In the circumstance it is appropriate to require the following: (1) CY shall make a filing to true up the decommissioning fund and to reconcile all disbursements during the corporate wind-up when plant decontamination and dismantlement is complete; (2) if CY prevails in the state court litigation with Bechtel, CY shall make a filing within six months of the conclusion of the litigation to flow through any net proceeds to the decommissioning fund; and (3) if, however, CY is unsuccessful in the litigation with Bechtel, CY shall file an appropriate motion with the Commission to justify any required payments to Bechtel or the court.

#### New Issues

263. On brief, Staff raises two issues which were not stipulated for adjudication.

264. First, Staff’s proposes, and I agree, that CY should be required to file an annual FERC Form 1. CY argues that this requirement is inappropriate and unnecessary because it is not an active jurisdictional utility. This argument begs the question. *In fact, CY is required to file an annual FERC Form 1 for each year in which it collects revenues from its customers.* CY is and will remain for some years to come a jurisdictional utility. Much of FERC Form 1 is still applicable to its operations as is reflected, for example, in the balance sheet and income statements in Volume 1 of 3 of its filing. In fact, CY did file a FERC Form 1 in 2004 but it contained little or no information, i.e., spaces for data were either left blank or a “0” was inserted. CY’s filing in this case, particularly its balance sheet and income statement contained in Volume 1 of 3 of its filing, contains

information that is similar to what is required by jurisdictional utilities on FERC Form 1. In the circumstances, requiring CY to file a completed annual FERC Form 1 achieves a just and reasonable end result because CY's decommissioning costs will be fully transparent and the public's right to know will be ensured. This requirement is necessary and appropriate and achieves a just and reasonable end result. In the circumstances, the raising of this issue in Staff's initial brief is not critical to its consideration and disposition on the merits.

265. Staff's other recommendation on brief (unlike the FERC form 1 proposal which deals with a Commission reporting requirement) is that CY should be required to show clearly the effect of the escalation factors in tables which tie the actual costs for past years and the estimated costs for future years to the total collections made in prior years and proposed for future years.

266. On brief, Staff argues that CY's filing is so disorganized that it is difficult if not impossible to determine whether the requested charges are just and reasonable. Staff IB at 70. Staff argues that the going forward estimates which CY used in calculating the rates at issue are 21% higher than \$603.4 million in 2003 dollars discussed by CY's witness. *Id.* at 72. Staff states that CY's prefiled testimony, with its frequent repetition of the claim that going forward costs are \$603.4 million, coupled with its failure to file the portions of the spreadsheet which showed the application of the escalation rate mentioned by Ms. Jewell-Keller, is accidentally misleading at best and deliberately deceptive at worst. *Id.* at 74. Staff adds that CY did not even file the complete spread sheets showing its estimate until Staff requested them during the hearing. *See* Tr. at 761, 826. In the final analysis, Staff concludes that,

Nevertheless, if the Presiding Judge and the Commission desire to give CY some rate increase to cover immediate decommissioning costs, the rates which CY is permitted to collect should be based on the \$603.4 million in 2003 dollars discussed by its witnesses, adjusted to include actual, not estimated, costs for 2003, adjusted to remove any costs found to be imprudently incurred, and escalated at no more than the 2.38% rate recommended by Staff witness Radel for decommissioning costs other than employee staffing, employee benefits and GE Morris fuel. Staff requests that CY clearly show the effect of these escalation factors in tables which tie the actual costs for past years and the estimated costs for future years to the total collections made in prior years and proposed for future years.

Staff IB at 93-94.

267. The record as made adequately explains and supports the decommissioning cost estimate. CY correctly points out that the record includes a CD-ROM with the full 2003 estimate and supporting documents with regard to the various components of the estimate as reflected in Ex. CY-3, Ex. CY-3A, and a printout, Ex. CY-112, showing year-by-year

breakdowns of the 2003 Estimate with and without contingency allowances. CY states, and I agree, that this information is adequate to explain the basis of and support for CY's decommissioning charges. CY RB at 99-100.

268. It appears that the rub here for Staff is the failure of CY to "clearly show the effect of these escalation factors in tables which tie the actual costs for past years and the estimated costs for future years to the total collections made in prior years and proposed for future years." This kerfuffle has little or no basis on the record as made. In fact, decommissioning collections from 2003 through 2010 of \$591 million<sup>38</sup> match closely the decommissioning cost of \$603.4 million, which Staff agreed to. Staff IB at 93; Ex. CY-3, page 4, col. AF, line 80; Ex. CY-4 at 17; and Ex. CY-7. Further, a review of Ex. CY-3 shows the actual and projected decommissioning costs for the period 2003 through 2023 of \$521,686,000 in nominal dollars. Ex. CY-3, page 4, col. AC, line 80. Applying the weighted contingency for 2003-2023 of 15.67 percent yields a total decommissioning cost of \$603,409,000. *Id.* at p. 4, col. AF, lines 80 and 82.

269. The record thus reflects a near balancing of decommissioning collections with nominal decommissioning costs. Further, CY has agreed to make future filings (CY IB at 141) which would be an opportunity for an interested party to contest any discrepancy between costs and collections. Accordingly, Staff's proposal is unnecessary and, given its untimeliness, is also inappropriate and, for these reasons, is rejected.

### ORDER

Wherefore, It is Ordered, that subject to review by the Commission on appeal or on its own motion, Connecticut Yankee Atomic Power Company, consistent with the findings and conclusions of this Initial decision, shall collect the rates authorized by this decision subject to the findings and conclusions set forth above.

Bruce L. Birchman  
Presiding Administrative Law Judge

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<sup>38</sup> CY's proposed rates show total decommissioning collections of \$591,496,000 from 2003 through 2010, which includes \$16,742,000 for 2003 and 2004, and \$93,002,000 from 2005 through 2010. Ex. CY-7 ("Decommissioning Collections Schedule").

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