ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeals of --	)	
	)	
C.H. Hyperbarics, Inc.	)	ASBCA Nos. 49375, 49401,
	)	49882, 53077
Under Contract Nos. N47408-94-C-4025	)	53078, 53079
N47408-94-C-4036	)	53080, 53292

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OPINION BY ADMINISTRATIVE JUDGE TODD

These appeals arise under two contracts for hyperbaric piping and instrumentation in an Army combat swimmer training facility. The government issued a default termination of one of the contracts for appellant's failure to respond to a cure notice. Appellant claimed an equitable adjustment on the grounds of defective specifications, differing site conditions, changes, and failure to deliver government-furnished equipment (GFE). Appellant has argued its entitlement to impact costs from government-caused delay and costs resulting from the default termination. Appellant has appealed the government's assessment of liquidated damages. The government has claimed a price adjustment for deductive changes. Both entitlement and quantum are before us for decision.

FINDINGS OF FACT

Contract Terms

1. On 14 January 1994, the Naval Facilities Engineering Command (NAVFAC) awarded Contract No. N47408-94-C-4025 (Contract 4025), a negotiated contract, to appellant C. H. Hyperbarics, Inc. (CHHI) for the design and installation of hyperbaric piping and instrumentation for the Army Special Forces Training Facility, Fleming Key, Key West, Florida in accordance with detailed contract specifications. The amount of the firm fixed-

price contract was $650,934.[1] The contract completion date was 29 January 1995. (R4, tabs 9E, 10, 11A; tr. 34, 378)

2. Contract 4025 required the contractor to provide labor and materials for the design, procurement, fabrication, assembly, shop test, installation and field testing of hyperbaric facilities in four new buildings at the training facility. The buildings are the Compressor/Generator building, the Free Ascent Tower (FAT) building, the Aid Station building, and the Open-Closed Circuit (OCC) building. There was a separate construction contract with a different contractor for the buildings. The equipment and related piping involved two recompression chambers, high-pressure air storage, a submarine escape trunk trainer, open diving bells, and a scuba charging system. (R4, tab 9E at C1, ¶¶ 1.1.2, 1.1.3) The facilities were to be "installed and tested" and required to be "*complete and useable upon completion of the work*." (*Id.*, ¶ 1.1.1.; emphasis added) The specifications described the existing conditions and stated that a copy of the building plans and specifications would be given to the contractor showing the location of the various components of the facility. This provision noted that the locations were approximate. The contractor was required to provide detailed layouts of equipment and piping and take into account all interferences and as-built conditions in the buildings. (*Id.*, ¶ 1.1.5.)

3. The Army Special Forces was the user of this newly built Combat Swimmer Trainer Facility that was to replace an antiquated facility. The Compressor/Generator building houses the air compressors for the breathing gases used in the diver training. The Aid Station building is used to treat medical emergencies that may arise during training. The OCC building is used for instruction and housing the hyperbaric equipment needed in the field. The FAT building houses a tower, approximately 50 feet high, that is filled with water and has attached to it at the bottom a submarine escape simulator called an "escape trunk" (ET) that is used to train divers on how to exit from a submarine hatch. All four buildings contain hyperbaric systems that are connected to each other by means of hyperbaric piping. "Hyperbaric" refers to the use of high-pressure breathing gasses used by divers and in medical emergency treatments involving divers. Recompression chambers are used to provide medical treatment in the event a diver develops a gas embolism caused by a reduction in pressure upon a diver's too rapid ascent through the water. The importance of prompt treatment called for placement of a recompression chamber at the top of the FAT as well as the location of another recompression chamber in the Aid Station building. (R4, tab 457; tr. 32-33, 35, 592-95, 681-82, 1569)

4. The Contract 4025 specifications imposed technical responsibility on the contractor in accordance with the following pertinent provisions in paragraphs 1.2.1 and 1.2.2:

> SPECIAL PERFORMANCE REQUIREMENTS DUE TO HAZARDS TO PERSONNEL: Attention of prospective

[1] The dollar amounts in this opinion have been rounded to the nearest whole dollar.

> bidders is called to the fact that this contract calls for the fabrication of life sensitive support systems. . . . Failure to adhere to the highest standards of metallurgy, welding and workmanship will create severe hazards to persons working on or near these systems when they are pressurized. . . .
>
> CONTRACTORS [sic] TECHNICAL RESPONSIBILITY: This specification contains technical requirements to which the contractor must adhere; however, it is the contractor's responsibility to confirm by engineering analysis that component sizes cited herein are adequate to perform the "Operational/Performance Requirements" cited in part C2. Typical of such items are pipe sizes, number of air storage flasks, etc. Data has been provided herein to demonstrate the conceptual feasibility of such a facility. Other technical issues that are not specified herein are at the discretion of the contractor.

(R4, tab 9E at C6, ¶¶ 1.2.1, 1.2.2) Paragraph 1.2.3. provided for omissions from the drawings as follows:

> Omissions from the drawings or specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the contractor from performing such omitted or misdescribed details of the work but they shall be performed as if fully and correctly set forth and described in the drawings and specifications.

(*Id.*, ¶ 1.2.3)

5. Contract 4025 provided that the government would furnish four high pressure air compressors within 270 days after contract award, or, no later than 11 October 1994 (*id.* ¶ 1.1.4.a.). The contract further provided that the government would furnish two recompression chambers. Paragraph 1.1.4.d. stated in pertinent part:

> Recompression Chamber System (RCS) - Pressure Vessel for Human Occupancy (RPVHO). The two RPVHO's are government furnished equipment (GFE) and are fully furnished. . . . *No work is required on the GFE chambers* except to make the necessary connections to the new piping and services. One chamber shall be installed in the cupola of the Free Ascent Tower. It is presently installed and in use in building C-59 at

> the Special Forces Training Center. . . . The second chamber shall be installed in the Aid Station building . . . . It is presently in storage . . . . Chamber availability shall be in accordance with paragraph C1.1.10.

(*Id.*, ¶ 1.1.4.d.; emphasis added) The contractor was to schedule the work for phasing the two recompression chambers. Paragraph 1.1.10. provided that "normal operations of the existing recompression chamber located in building C-59 not be interrupted until installation of the other recompression chamber" was completed in the Aid Station building and "certified for operations" (*id.*, ¶ 1.1.10.a.). General requirements for the recompression chambers were contained in the publication ASME (American Society of Mechanical Engineers)/ANSI (American National Standards Institute) PVHO-1 "Safety Standard for Pressure Vessels for Human Occupancy" (*id.* at C4, ¶ 4.1.1.).

6. The specifications for the FAT building included the following provisions:

> Disconnect, relocate and install a GFE recompression chamber in the Cupola of the FAT building. The contractor shall design, fabricate and install a submarine escape trunk trainer (ET) at the base of the FAT.

(*Id.* at C3, ¶ 1.1.3.b.) The contract included a general arrangement drawing for the layout of the FAT building and schematic drawings for the internal elevation and structural arrangement of the ET (*id.* at C62, C6.20; C64, C6.22; C66, C6.24; and C67, C6.25).

7. Contract 4025 required submittals that included a preliminary design package 80 days after contract award that was in sufficient detail to demonstrate conformance with the hyperbaric facility code requirements as stated in paragraph 1.2.7. and a final design package 150 days after award that was defined as final versions of the elements of the preliminary design package. The contract also required monthly reports to include an updated project schedule, component database, and current progress report containing a summary of work performed and any problems and their solutions encountered during the reporting period as well as a statement of the overall status of the project. The schedule was required to be a GANTT chart, CPM chart or roadmap with defined and documented milestones and tasks. (*Id.* at C7, ¶ 1.2.6.; C35, ¶¶5.1.11, 5.1.12; C37, ¶ 5.1.19; C38, ¶ 5.1.20)

8. Contract 4025 specified the valves to be used as follows:

> All valves that regulate flow (other than on-off function), oxygen service valves, and high pressure valves (except for those remotely actuated) are considered throttle valves. They shall be globe or needle valves. These valves shall conform to MIL-STD-24109 with respect to control of flow and pressure.

(*Id.* at C15, ¶ 3.1.23) The contract also included the following pertinent provisions of a standard products clause:

> STANDARD PRODUCTS: Whenever practical, use will be made of materials and equipment that are standard catalog products of manufacturers regularly engaged in the production of such materials and equipment . . . . Where two or more products of a similar type are used, they will be products of the same manufacturer.

(*Id.*, at C6, ¶ 1.2.5.)

9. Contract 4025 required the contractor to fabricate pipe trenches between buildings. For planning purposes, the specifications described the existing conditions as anticipated completion of the four new buildings in July 1994, with possible completion as early as May 1994. The dimensions of the trenches were specified as 12 inches wide and 12 inches deep. The contract provided a general layout of trenches, but specified that the contractor was to determine the exact location of the trenches. (R4, tabs 9B, 9C, ¶ 3.2.1.2., 9E at C5, ¶ 1.1.5)

10. The relevant Contract 4025 specification provision for the ET trainer provided as follows:

> Provide and install a 637 class submarine escape trunk trainer in the class room on the ground floor of the FAT. The existing roof hatch penetration will allow the escape trunk to be lowered into the classroom, and moved into place. This roof hatch is located on a sloping roof under the cupola deck which is partially enclosed, and will require special rigging technique to insert the ET. The hyperbaric contractor will install the trunk to the existing flange penetration in the side of the FAT. The contractor shall be responsible for opening and closing the roof hatch, and making sure the hatch does not leak when installation is completed.

(*Id.* at C21, ¶ 3.2.2.c.) The ET was required to conform to ASME standards (*id.* at C31, ¶ 4.2.1.b.). The contract required a system for filling and draining the ET. The relevant specification stated:

> Water from the ET shall discharge into an ET holding tank (provided by the contractor). This tank shall be capable of holding a water volume 1.5 that of the ET, and be fabricated of corrosion resistant material.

(*Id.* at C22, ¶ 3.2.2.c.2.)

11. The Contract 4025 specifications for the OCC building included the following provision:

> All welded stainless steel piping and fittings installed exterior to the buildings shall be acid pacification [sic] treated according to MIL-STD-QQ-P-35.

(*Id.*, ¶ 3.2.6.) The term in the contract should read "acid passivation" instead of "acid pacification" (tr. 795, 1700, 1815).

12. Contract 4025 required that the finished hyperbaric facility conform to listed codes and standards. The contractor was to demonstrate by testing that all piping, instrumentation and systems met all the criteria contained in the contract specification. The facility functional test required a demonstration that the systems were hazard free and in accordance with applicable codes and standards. (R4, tab 9E at C1, ¶ 1.2.7; C5, ¶¶ 5.1.17, 5.1.18, 5.2.1.)

13. In Contract 4025, the government agreed to make invoice payments and customary progress payments in accordance with the standard PAYMENTS and PROGRESS PAYMENTS clauses. The standard contract clause at FAR 52.232-1, PAYMENTS (APR 1984), required the government to pay the contractor the prices stipulated in the contract for supplies delivered and accepted upon the submission of proper invoices. Under the standard clause at FAR 52.232-16, PROGRESS PAYMENTS (JUL 1991), progress payments are computed as 80 percent of the contractor's cumulative total costs under the contract. FAR 52.232-16(a). The contracting officer could further reduce progress payments after finding on substantial evidence one or more of certain conditions, *e.g.*, failure to comply with a material requirement of the contract or failure to make progress that endangers performance of the contract. *See* FAR 52.232-16(c)(1) and (2). (*Id.* at I2, I23)

14. Contract 4025 required performance bonding that North American Insurance Company issued, effective 7 February 1994, in the sum of $162,733. When the Contract was later amended and the new contract price exceeded the total contract award by more than 25 percent, the surety consented to increase the amount of the bond by 100 percent of the dollar amount of Modification No. P00003. The amount of CHHI's bond was increased to $364,079. (R4, tabs 10, 11C, 18; tr. 390-91)

15. Contract 4025 provided for liquidated damages if the contractor failed to perform within the time specified in the contract or any extension. The liquidated damage rate was $350 for each consecutive calendar day of delay. (R4, tab 9E at C5, ¶ 1.1.8; F4)

16. The contract contained the standard contract clauses at FAR 52.212-4, LIQUIDATED DAMAGES - SUPPLIES, SERVICES, OR RESEARCH AND DEVELOPMENT (APR 1984)[2] and FAR 52.232-25, PROMPT PAYMENT (APR 1989). The contract incorporated by reference other standard contract clauses, including the clauses at FAR 52.212-15, GOVERNMENT DELAY OF WORK (APR 1984); FAR 52.232-9, LIMITATION ON WITHHOLDING OF PAYMENTS (APR 1984); FAR 52.233-1, DISPUTES ALTERNATE I (DEC 1991); FAR 52.236-2, DIFFERING SITE CONDITIONS (APR 1984); FAR 52.243-1, CHANGES - FIXED-PRICE ALTERNATE II (APR 1984); FAR 52.246-2, INSPECTION OF SUPPLIES-FIXED-PRICE (JUL 1985); FAR 52.249-2, TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE APR 1984); FAR 52.249-8, DEFAULT (FIXED-PRICE SUPPLY AND SERVICES) (APR 1984); DFARS 252.215-7000, PRICING ADJUSTMENTS (DEC 1991); DFARS 252.231-7000, SUPPLEMENTAL COST PRINCIPLES (DEC 1991); DFARS 252.233-7000, CERTIFICATION OF CLAIMS AND REQUESTS FOR ADJUSTMENT OR RELIEF (DEC 1991); and DFARS 252.243-7001, PRICING OF CONTRACT MODIFICATIONS (DEC 1991). (R4, tab 9E at E1-3, F1, F3, I2-I4, I23-I28)

Contract Performance

17. CHHI is a small business concern. Mr. Claude Herblot, CHHI's president, the program manager, managed the contract work with assistance from Mr. Joe Burt, CHHI's operations manager, who was the project manager at CHHI's office in Panama City. Mr. Gary Johnson was an engineering technician with CHHI who served as project manager on site when neither Mr. Herblot nor Mr. Burt were there. Ms. Corinne Pearson was the contracting officer handling all the administrative duties on the contract for the government from the NAVFAC office in Washington, D.C. She retired from the government in June 1997 and was not called as a government witness at the hearing

[2] Redesignated to FAR 52.211-11.

because of her medical condition.[3] Ms. Linda Naber Winterstein, formerly known as Linda L. Naber, was the Director of the NAVFAC Contracts Office in Port Hueneme, California with supervisory responsibility for the branch office in Washington, D.C. that had procuring and administrative contracting responsibility for the subject contracts. Ms. Pearson was the branch manager and reported to Ms. Sally Middlebrooks, a division director. Ms. Linda Dearing, administrative contract specialist, had responsibility for monitoring the performance of CHHI's contracts. The government's project manager and contracting officer's technical representative (COTR) was Mr. David M. DeAngelis, program manager for NAVFAC hyperbaric facilities. Mr. Chuck Thompson was NAVFAC's quality assurance inspector. (R4, tab 19; exs. G-3, A-68 at 44; tr. 27, 238, 241, 244, 315, 376-77, 581, 601-02, 626, 633, 662, 1399-1400, 1895) The project was unique because it was an Army project on a Navy base with Army program decisions under a NAVFAC contract. The arrangement made it harder than usual for the COTR to obtain requisite government approvals. (Tr. 44, 1829-33)

18. Two weeks after contract award Mr. DeAngelis informed Mr. Herblot that the government would not be able to provide the GFE air compressors. The Army had decided to procure the compressors independent of NAVFAC, but then could not get funding for the project and requested that NAVFAC procure them. Mr. DeAngelis asked Mr. Herblot for prices for different types of compressors that might be used. In response to this request, which Mr. Herblot felt compelled to honor, appellant developed a type of cost proposal called "a rough order of magnitude" or "ROM" for CHHI to supply the air compressors pursuant to an anticipated modification to Contract 4025. By letter dated 1 February 1994, Mr. Herblot quoted two electric and two diesel air compressors with air purification package systems from Bauer Compressors (Bauer), with cost breakdown, for a ROM of $251,136. Bauer offered its standard products including its standard tests. In the following six weeks CHHI researched other suppliers' types of compressors and special features. CHHI received additional technical data and quotes from Bauer and Hydromatics, Inc. (Hydromatics), its distributor, and two other suppliers regarding other equipment. By letter dated 18 March 1994, CHHI submitted a more detailed cost estimate for the equipment it proposed stating that the estimate was provided pursuant to requests by Mr. DeAngelis' office. The ROM was revised to $251,420. (R4, tabs 15, 21, 83 to 91, 561, item 8 at 12-52, 562 at 2 through 71; tr. 44, 633-34, 642-44, 1239-40, 1250-53, 1501)

[3] Appellant wished to call Ms. Pearson as a witness to show that she had the position of contracting officer, but merely signed off on documents provided by the contracting officer's technical representative to the injury of CHHI. Appellant agreed that evidence of her medical condition placed in the record could excuse her from testifying, but wanted that evidence to support drawing an adverse inference against the government. The government requested that no adverse inference be drawn from her nonappearance. The presiding judge considered the parties' positions and ruled that Ms. Pearson's testimony would not be presented. (Exs. G-3 through G-5; tr. 251, 562, 570-76). The Board draws no adverse inference from her nonappearance.

19. As of 21 January 1994, CHHI had scheduled the project using a time line construction chart with a work breakdown schedule (WBS) of numbered activities. The first on-site activity, trenching, was scheduled for three months duration from 15 March 1994 to 11 June 1994. The schedule showed that the second phase of the project would begin with in-house fabrication of FAT piping (WBS 900) on 28 November 1994, and FAT installation on site (WBS 1000) on 16 December 1994. The recompression chamber would not be installed in the second phase in the FAT building until the chamber in the Aid Station building was in use (finding 5, *supra*). Contract completion was shown for 23 January 1995. (R4, tab 19; tr. 752, 791, 1371)

20. On 3 February 1994, a kick-off meeting was held at CHHI (R4, tab 19). All technical correspondence was to be sent to Mr. DeAngelis' attention, and he emphasized the importance of providing written correspondence for matters affecting the project rather than relying on telephone conversations. The record of the meeting, dated 8 February 1994, discusses the status of the GFE air compressors as follows:

> It appears the GFE compressors will not be provided by the Government. NFESC has not received official notification, but was told . . . that a request to include the purchase of the GFE compressors as part of this contract would be sent by the SOUTHNAVFACENGCOM Program Manager. Ordering problems, concurrent warranty (with this contract's completion), and liabilities of providing GFE compressors all have contributed to the requirement that these compressors be provided by this contract. . . . NFESC must wait for official notification of the request to include this modification before a request for proposal can be given to CHHI.

(*Id.* at 3) CHHI's schedule, dated 21 January 1994, shows that CHHI needed the GFE air compressors delivered for testing on 23 November 1994 (*id.* at 9; tr. 648).

21. The record of the kick-off meeting, dated 8 February 1994, states with respect to the ET:

> Mr. DeAngelis will provide a copy of ET drawings built for other CST [combat swimming training] facilities. Lt. Moore emphasized the importance of having a similar ET to that of the existing CSTs.

(*Id.* at 2) Mr. Herblot understood that the ET was to be identical to those at Navy SEAL training facilities in Little Creek, Virginia and Coronado, California (tr. 765, 1660, 1663, 1805). The government provided CHHI with manufacturing drawings for the Submarine Escape Trunk Free Ascent Trainer prepared by VMW Industries in 1988 (the VMW

drawings) (R4, tab 12A; tr. 766, 1658). As a result, CHHI was not required to provide manufacturing drawings for the ET (tr. 1670).

22. The government's memorandum of the first on-site meeting held on 2-8 March 1994, dated 17 March 1994, listed numerous items that required contract modification due to defective specifications or user-requested changes. Changes for the trenches were required due to the amount of utilities in the general locations designated in the specifications and drawings. CHHI reviewed the facility plans, but they did not indicate where the underground utilities were, and the government was unable to provide that information. The total depth of the trenches was changed from 24 inches to 18 inches, and the trench hole was changed from 12 inches deep to 6 inches deep. The width of the trenches was changed from 12 inches to 6 inches. A new layout was shown in a sketch attached to the memorandum, which provided more direct routing among the buildings reducing the length of the trenches and combining some trenches. The government and the contractor were to have a representative on site during the trench digging. The procedures to be followed in the event of finding a utility were outlined. The planned date to begin trenching was set for 3 May 1994. CHHI requested government drawings for the new design of the trenches. Within a reasonable time the government responded that they would not provide them. CHHI was told to do the redesign, which required CHHI to perform additional work involving research into compaction and other unfamiliar aspects of civil engineering. CHHI submitted a redesign to accommodate the changed width and depth of the trenches. (R4, tab 20; ex. G-15; tr. 747-49, 753, 1126, 1593-96, 1608-13, 1625-28, 1645, 1794) By letter dated 28 March 1994, the Army approved NAVFAC's request for variation in trench depth according to the CHHI redesign (R4, tab 22; tr. 749).

23. On 19 April 1994, a meeting was held at CHHI's facility to discuss the status of the work. The government provided a copy of the requested excavation permit for the trenches and gave CHHI the point of contact for issuance of the permit. CHHI proposed to use Whitey valves, which it considered superior for providing accurate flow control for the scuba repair station, although it knew from an earlier contract Mr. DeAngelis did not like them. He told CHHI the Whitey valves would have to be used throughout the facility and manufacturer's data showing that they would meet the specification requirements would have to be submitted for government review. There is no documentation that Mr. Herblot provided this data to the government, and the government did not respond. The other valves in the hyperbaric system are all needle valves that are of a similar type. (R4, tab 28; tr. 756-57, 1654)

24. On 26 April 1994, CHHI issued a purchase order to Frank Keevan & Son, Inc. (Keevan), its general contractor on the site, for the fabrication and installation of the trenches and the concrete pads as shown on CHHI drawings (R4, tab 24; tr. 601-02).

25. On 2 May 1994, CHHI was on site to construct the trenches, but was prevented from proceeding by the government's decision at the user's request to allow the building contractor to complete its work before its scheduled beneficial occupancy date of 15 May

1994. On 5 May 1994, Mr. DeAngelis submitted a request for the excavation permit required for the trenches. CHHI gave notice of delay by letter, dated 10 May 1994, which identified impact costs of the project manager being on site for four days. Mr. DeAngelis directed CHHI to come back on 6 June 1994 to begin the trenching. (R4, tabs 17, 25, 29; tr. 744, 749-51, 1614-15, 1634)

26. On or about 6 June 1994, CHHI returned to the site to construct the trenches. The trenches were relocated at the Aid Station building so the piping entered the building through a closet rather than a doctor's office. The building contractor had completed pavement of roadways and done the landscaping in the areas designated for the trenches. CHHI had observed the conditions at the site at the time of bidding before the paving and landscaping and planned to do the trenching before the building contractor completed this work. It was more costly to dig trenches through paved and landscaped areas than in the open space seen before building construction was completed. To the extent the trench lengths were shorter, it took less time to dig the trenches, but CHHI was required to dig the trenches twice because the uncertain location of the underground utilities entailed use of shovels rather than a backhoe in the areas where utilities were found. The reduction in square footage and depth of the trenches did not decrease the amount of work. CHHI had Mr. Burt on site for five days as its representative working to assist Keevan in identifying the exact location of the utilities. (Tr. 91-93, 745, 751, 754, 1616, 1943-44, 1062-65, 1095)

27. The government recognized that the trenches required an additional trip to the site by CHHI and additional drawings of two low points in the trenches (R4, tab 30). In response to a request from the contracting officer, CHHI submitted cost proposals for additional trench work involving thicker trench covers in asphalt areas, drains at two low points in the trenches, and use of concrete in lieu of sod (R4, tabs 31 to 33). On 8 June 1994, CHHI issued a purchase order to Keevan for thicker trench covers in asphalt areas in the amount of $4,870 (R4, tab 35). On 20 June 1994, CHHI transmitted the government-approved trench changes to Keevan (R4, tab 37). On 22 June 1994, CHHI issued a purchase order to Keevan for installation of drains at two low points of the trenches and filling in with concrete all space between the trenches in non-paved areas in the total amount of $4,660 (R4, tab 39). In a final proposal for the changes to the pipe trenches, CHHI's detailed cost breakdown showed a total cost of $20,534 (R4, tab 36 at 5). CHHI's costs for the changes the government made in the trenches were later included in a contract modification without any discussion of any potential cost savings to CHHI (finding 40, *infra;* tr. 1636-40).

28. Beginning 21 June 1994, CHHI submitted monthly invoices for payment. The contracting officer retained ten percent of the amount invoiced before approving the invoice for payment (R4, tab 572). Retention deals with the progress of the contractor's performance. The NAVFAC Contractor's Invoice form indicated retention in a range of 0 to 10 percent. Ms. Dearing explained that the NAVFAC "norm" was to retain ten percent as a protection against nonreceipt of deliverables at the end of the contract and that retention under normal circumstances was not released until 100 percent acceptance was made. The

government continued to retain the maximum ten percent of the amount CHHI invoiced on a routine, regular basis without regard to whether CHHI was achieving satisfactory progress or substantial completion of portions of the contract work. (R4, tabs 573-83, 586, 588, 590-91; tr. 379, 500)

29. On 29 June 1994, CHHI submitted a preliminary design package that included general arrangement drawings that showed, *inter alia*, the installation of 3/8" needle valves, also known as CPV valves, and a bill of materials (BOM) that identified manufacturers of components with their catalog cuts. CHHI drawing 9406-202 for the OCC building shows V-9 valves listed in the BOM as Whitey for the scuba repair station. At this time CHHI submitted catalog information about the Whitey valves, but did not submit a deviation request. CHHI submitted its final design package with no additional information about the Whitey valves. The government reviewed the preliminary design submission and provided comments to CHHI, but did not approve or disapprove either the preliminary or final design package. (R4, tab 46 at 1, 11; tabs 184, 194; tr. 757, 1798)

30. CHHI furnished the VMW drawings of the ET to its subcontractor, Dillon Boiler Service, Inc. (Dillon) to design, fabricate, and test the ET. CHHI's preliminary design package included Dillon drawings with a dual hemisphere design and showed material with a nominal minimum one-inch thickness. The VMW drawings show the material with a one-half inch thickness. (R4, tab 12A, dwg. 6460-308, tab 12B, dwg. 9406-637, tab 67; tr. 770, 779, 1661-62, 1802-04).

31. On 4 August 1994, a meeting was held at Dillon's facility in Fitchburg, Massachusetts to discuss the fabrication of the ET. Mr. Herblot, a representative of Dillon, and government representatives Messrs. DeAngelis and Thompson discussed the government's comments on CHHI's preliminary design. CHHI proposed a change in design to an "orange peel" design using 3/8" plate to fabricate the hull of the ET. The 3/8" thickness was ample to withstand the pressures in the vessel and meet ASME requirements. An ASME inspector reviewed and approved the design. The government did not object to the change in design, but required a minimum 1/2" thickness of the plate, which had been used previously on other projects. If CHHI insisted on 3/8" thickness, it would require the dual hemisphere design presented in the preliminary drawing package. The reason for CHHI's change was the unavailability of manufacturers of the large hemispheres in the Northeast and the increased cost if these large, heavy units had to be shipped from the Southwest where they could be obtained. (R4, tab 48; tr. 771-72, 1804)

32. The government decided not to use appellant's quote to furnish the air compressors pursuant to a modification to Contract 4025 because Ms. Middlebrooks and Ms. Winterstein determined that the air compressors were not within the scope of the contract and a new procurement would be required (tr. 44, 255, 646-47). On 8 August 1994, the government issued a request for proposals (RFP) for the design, fabrication, assembly, installation and testing of four air compressors and two air purification and drying systems to replace the corresponding GFE under Contract 4025. CHHI submitted a

proposal after getting a confirmation that its quotation from Bauer was valid through 1 October 1994, and received award of the contract. (R4, tabs 93, 100C; tr. 45, 647)

33. By letter dated 26 August 1994, CHHI requested clarification or direction with respect to some of the comments received on its preliminary design package. CHHI stated that it could find no requirement for the plate thickness for the hull of the ET in the specifications and intended to use a 3/8" thickness with its orange peel design. CHHI wondered how the government could impose as a contract requirement elements of the contractor's preliminary design package. (R4, tab 51)

34. By letter dated 29 August 1994, Ms. Pearson clarified that the government did not accept CHHI's proposed change in design for the ET, but found the original design in the preliminary design package acceptable. She told CHHI that new design concepts for fabrication could not be submitted in the final design package, but a request for deviation was required. If CHHI requested a deviation, the government would require a minimum 1/2" thickness in the hull. (R4, tab 52; tr. 769-70) CHHI responded in a letter, dated 1 September 1994, that it considered the preliminary design was not a contract document, but was submitted for informational purposes and could be changed, provided the change conformed to the contract documents. CHHI notified the government that it considered insistence on the 1/2" thickness a constructive change order. (R4, tab 55; tr. 772-73)

35. On 8 September 1994, CHHI requested direction or clarification with respect to specifications for three items in the ET and FAT. The basis for these requests was CHHI's confusion between the provision in the contract specification and the VMW drawings it had received from the government for basing its design. First, CHHI objected to the location of light penetrators because they were on the same center line as the viewports and should be installed higher. Second, CHHI considered the requirement of a relief mechanism inappropriate inside a closed pressure vessel. Third, CHHI questioned the use of a magnetic switch as unsafe for a water environment. (R4, tab 57; tr. 782-83, 786-87, 1711)

36. On 19 September 1994, Mr. DeAngelis responded to CHHI's request for clarification on the technical matters he listed as ET lighting, ET relief valve, and magnetic switch. The location of the ET lighting was in the discretion of the contractor. The ET relief valve was deleted as an approved deviation to the contract, and no deductive modification was issued. The government agreed to accept an indicating mechanism other than a magnetic switch that would serve the purpose of accurately reflecting the open or closed condition of the hatch. (R4, tab 59; tr. 785-86, 1711-12) CHHI's claim that these design flaws and incomplete specifications caused it to incur additional labor costs during the period 8 September to 31 October 1994 is an assertion without supporting evidence (R4, tab 563, att. 2, task 5-1).

37. In a telephone conversation between Mr. Herblot and Mr. DeAngelis on 26 September 1994, the location of the ET holding tank was discussed. CHHI found that the dimensions of the standard tank made it too large for the room in the FAT building that

was shown on the contract drawings. CHHI was responsible for the layout of the hyperbaric piping in the FAT building rooms and could have selected a design of the holding tank that would have been an adequate fit for the room. Messrs. Herblot and DeAngelis agreed that a room that was empty and adjacent to the specified location would be an appropriate alternative location. The government approved this change in location for the ET holding tank by letter, dated 30 September 1994, as a deviation request at no additional cost or time to the government. (R4, tab 64; tr. 685-86, 789, 1684-85, 1691)

38. On 27 September 1994, NAVFAC awarded Contract No. N47408-94-C-4036 (Contract 4036) to appellant CHHI for supplying the air compressors and purification systems in accordance with detailed contract specifications in the government's RFP. The amount of the firm fixed-price contract was $241,488. The contract completion date was 11 March 1995. (R4, tab 100C) The failure of the government to deliver GFE air compressors impacted CHHI's schedule for completion of Contract 4025. The air compressors would not be available by 23 November 1994, in approximately two months for scheduled testing (finding 20, *supra;* tr. 649).

39. Contract 4036 provided for installation and final system testing of the air compressors and purification systems in the Compressor building (R4, tab 100 at C4, ¶ 1.1.6). The contract required that the hyperbaric facilities be "complete and usable" upon completion of the work (*id*. at C3, ¶ 1.1.1). The specifications included the following pertinent provisions:

> Functional Test Plan: The contractor shall submit a functional test plan for the complete test of all hardware provided as part of this specification. . . .
>
> System Functional Test: The contractor shall be required to demonstrate, by testing, that all piping, instrumentation, and systems are capable of meeting all the criteria contained in this specification. Functional testing shall be performed at (1) the manufacturers [sic] shop and (2) on-site after successful installation. . . .

(*Id*. at C26, ¶¶ 5.1.17, 5.1.18) Paragraph 3.2.1.C.2. specified that each purification system was required to be capable of processing approximately 3,000,000 cubic feet of air between element changing (*id*. at C19, ¶ 3.2.1.C.2.).

40. Bilateral Modification No. P00003, dated 30 September 1994, to Contract 4025 revised the contract specifications, increased the contract price, and extended the contract completion date. CHHI reviewed the government's scope of work, dated 8 August 1994, for Contract 4036 and proposed the cost and additional time that the government agreed to include in the modification. The changes included the following:

> 3.2.7.1 Trenches - Provide French field drains at trench low points (two places). The areas between the trenches shall be provided with concrete versus sod or asphalt.
>
> . . . .
>
> 3.2.7.3 Trip - Provide additional trip to Key West - one man for four days.
>
> . . . .
>
> 3.2.7.5.4 - Provide one Haskell Pump for LAR V charging station. [I]nclude stand for Haskell Pumps.

Paragraphs 3.2.7.7.2., 3.2.7.7.3., and 3.2.7.7.4 concerned work that needed to be done to change the piping system on the GFE recompression chambers that were not "fully furnished" as the contract had provided (finding 5, *supra;* R4, tab 140; tr. 836, 838). The modification increased the contract price by $201,346 to a total contract price of $852,280, approximately 25 percent, and extended the contract completion date to 7 May 1995. (R4, tab 11C; tr. 622-25) The government intended that the compressors would be available to CHHI in sufficient time to avoid delay to this revised Contract 4025 completion date (tr. 47-48).

41. CHHI's revised schedule, dated 3 October 1994, shows that the trenching was performed during the planned length of time of three months, but two months later within the period 16 May 1994 to 15 August 1994. CHHI began this work on 6 June 1994 (finding 26, *supra*). The second phase (WBS 900) was scheduled to begin on 27 February 1995, and contract completion would be 8 May 1995 (R4, tab 65; tr. 752).

42. On 11 October 1994, Hydromatics issued purchase orders to Bauer for the air compressors for CHHI. The required delivery date was 15 January 1995. Bauer conducts a standard test on its compressors as the manufacture is completed. On 18 January 1995, Bauer was advised that its customer wanted to witness testing of the compressors. (R4, tabs 104, 105, 120; tr. 1501-04)

43. On 21 October 1994, CHHI requested technical clarification or direction regarding the acid passivation requirement in the specifications for the exterior hyperbaric piping at the FAT building and in the trenches. CHHI stated its safety concerns with adding an acid treatment on the interior of the piping for gases that would be breathed by the divers. The pipe was not fabricated at the time of this request. (R4, tab 71; tr. 795-98, 1299, 1701-02) Mr. DeAngelis responded promptly by letter dated 31 October 1994, that the requirement was being reviewed by NAVFAC authorities. If the government decided it was not necessary, it would delete the requirement and issue a deductive change order. (R4, tab 75; tr. 798, 1703) As of 27 February 1995, the issue remained unresolved (R4, tab 158).

44. On 26 October 1994, CHHI notified the contracting officer that it would fabricate the ET with the orange peel design and a minimum thickness of 1/2" for the hull although this additional requirement was not part of the contract specification or the ASME. Dillon had increased material costs for the thicker steel that was used for the ET, but did not claim this increase (R4, tab 73; tr. 773, 1290).

45. On 29 November 1994, there was a contract review board (CRB) meeting on site to review the contractor's progress, any significant changes, and the site conditions. In this review, the parties noticed that the flange at the base of the FAT provided by the building contractor was warped. (R4, tab 82; tr. 496, 805, 1708-09) Mr. Thompson's inspection confirmation record that he later signed on 27 February 1995, discussed the distortion in the ET mating flange as follows:

> The flange is severely distorted at the top and bottom. . . . This distortion will prevent successful mating of the ET to the FAT, and must be corrected.

(R4, tab 158 at 7)

46. On 5 December 1994, CHHI sent a letter to the government discussing the issues raised at the CRB that required government action. CHHI understood that the warped flange on the FAT would "seriously hinder or prevent installation of the E.T." and asked how the government wanted to repair the distortion (R4, tab 79 at 2). The government discussed resolution of the problem with CHHI and directed CHHI to provide a measurement of the warpage, which CHHI then investigated with Keevan and Dillon (app. Statement of Costs (Stmt.) at 11; tr. 1082-83). Mr. DeAngelis requested review and approval from NAVFAC Southern Division to correct building deficiencies, including the flange on the FAT, that affected the CHHI contract. He advised NAVFAC that the flange was severely warped and that CHHI had notified the government that it would not be able to mount the ET successfully. When Mr. DeAngelis inquired on 27 January 1995 as to the status of funding and requested authority to proceed with corrective action to avoid project delay, he did not believe the structure could be bolted to the warped flange. (R4, tabs 81, 131; tr. 810-11) Nevertheless, at meetings on 30-31 January 1995 at Dillon, when Mr. Burt inquired, he directed CHHI to proceed as if the flange was in accordance with the specification. The government did not assume responsibility for the defective flange since it had been installed by the building contractor, but planned corrective action only if the ET could not in fact be bolted to the flange. CHHI did not receive instructions from the government for approximately two months, but its on-site work installing the ET was not delayed as a result. (Finding 91, *infra;* R4, tab 147; tr. 806, 813, 1709-10)

47. The government furnished the recompression chamber that was in storage to CHHI. In its 5 December 1994 letter, CHHI discussed its condition, which Mr. Herblot considered deplorable. The control console was not adequate, the welds were not full

penetration welds, and required paperwork was not available. CHHI planned to bring it back to its facility in Panama City during the week of 12 December 1994 to accomplish the piping modifications pursuant to Modification No. P00003 (finding 40, *supra*). CHHI mentioned items of additional work it considered were required: calibrating gauges, purchasing and installing viewports, x-ray of welds, and redoing electrical wiring (R4, tab 79). CHHI provided pricing for radiographic examination of the welds in response to a government request. The purpose of the testing would be to evaluate whether the chambers were repairable or required to be replaced. Satisfactory radiographic examination of the welds on the chambers would be required for certification of the chambers for human use by the NAVFAC System Certification Authority. The government was concerned with the possibility that the chambers had cracks because of a history of the aluminum chambers cracking after a long period of use. (R4, tab 562, item 9 at 4; tr. 606-09, 847-48, 1571, 1782-83) On 27 January 1995, Mr. DeAngelis provided estimated costs of the radiographic examination of the recompression chambers to NAVFAC Southern Division stating that he was very concerned about the condition of the chambers. NAVFAC had expected that all requirements for certification would have been met by the Army before the contract was awarded. The government does not dispute that both recompression chambers were not certifiable. (R4, tab 131; tr. 933, 939-40, 945, 1571-72)

48. In its 5 December 1994 letter, CHHI also discussed the required grounding for the recompression chambers which had not been installed in the FAT or Aid Station building by the building contractor. Mr. Herblot discussed the issue with Mr. DeAngelis and was asked by him to provide cost estimates. (R4, tabs 79, 140; tr. 826-28) In requesting review and action from NAVFAC Southern Division, Mr. DeAngelis identified the deficiency as a building contractor requirement and noted that the system could not be certified without these ground straps. A grounding system separate from the building grounding system was critical for safety of the people using the training facility and essential for a useable facility. (R4, tab 81, tr. 829-31) When Mr. DeAngelis inquired about the status of funding on 27 January 1995, he noted that CHHI had met with the Resident Officer in Charge of Construction (ROICC) office, but he had not yet received the numbers he wanted from CHHI (R4, tab 131; tr. 832). The government considered issuing a modification to Contract 4025 to add the installation of ground straps to CHHI's scope of work, but did not have funding, and none of this work was performed before the termination of CHHI's contract (tr. 1585-86). There is no documentation that CHHI submitted costing information to the government as Mr. Herblot asserted it was prepared before 1 February 1995. CHHI prepared its REA and submitted a work sheet, dated 9 June 1995, reflecting the additional labor and per diem proposed to accomplish the installation of the ground straps. (R4, tabs 248, item #010; 562, item 8 at 8-12; 563, item 2 at 44; tr. 834-35)

49. In its 5 December 1994 letter, CHHI noted that two rows of existing benches in the FAT building were to be removed by the government, and the government was to provide information about the feasibility of removing side railings to facilitate the installation of the ET (R4, tab 79).

50. In its 5 December 1994 letter, CHHI stated that it needed electrical drawings of the Compressor building to provide cost estimates for the modifications that were required. The electrical system provided by the building contractor was inadequate for operation of the air compressors that CHHI was furnishing under Contract 4036 because the hyperbaric electrical requirements were not separate from the building utilities. Mr. DeAngelis had requested that CHHI provide cost estimates for the modifications, but the pricing could not be completed without as-built electrical drawings. The government was able to locate schematic electrical drawings, which were provided to CHHI and used as the basis for CHHI's estimates. (R4, tabs 79, 82, 139; tr. 990-93)

51. On 2 January 1995, CHHI notified the government that the ET holding tank did not fit in either the specified or changed location due to space constraints and requested direction for the appropriate location of the tank. Both Mr. Herblot and Mr. DeAngelis were surprised that there was only a single, standard size door and not double doors that would have accommodated the large tank. (R4, tab 116; tr. 1692-93) The government did not resolve this request for approximately four months (R4, tabs 158, 174, 200; tr. 687-88, 791, 1694-95).

52. In its 2 January 1995 letter, CHHI confirmed to the government that Mr. DeAngelis had advised it to install the ET through the roof hatch of the FAT building. CHHI subsequently discovered that it would not fit through the hatch. The installation remained an unresolved issue for approximately five weeks until the government's letter of 5 April 1995 (finding 67, *infra*). (R4, tabs 116, 158; tr. 937, 941)

53. Mr. Herblot attended factory testing of the air compressors at Bauer, but did not notify the government of the date so the government representatives could attend. By letter dated 26 January 1995, Mr. DeAngelis notified CHHI that its failure to submit the functional test plan for the air compressors in the manufacturer's shop meant that the compressors would not be accepted until the plan was submitted and the government subsequently witnessed the testing at Bauer's shop. On the same date, in response to the government request for its functional test plan, Bauer sent the government a copy of its standard inspection and test procedures. Mr. DeAngelis sent Bauer a copy of paragraph 5.1.17 of the contract specifications to explain what he required. Bauer had not received this information previously. The contractually required test of the air compressor systems involved shutting down Bauer's test facility, whereas its standard test, which did not meet the contract requirements, was to test each compressor separately. Bauer canceled the testing scheduled for 27 January 1995. Bauer notified Hydromatics that there would be a charge of $440 for the system testing and that the compressors would be available for the test on 16 February 1995. On 6 February 1995, CHHI notified the government that the testing at Bauer was rescheduled for 16 February 1995. (R4, tabs 119, 124, 128, 129, 135, 141, 142; tr. 1002-04, 1504-07, 1513-14) CHHI notified the government that it would file a claim for additional costs resulting from the functional testing, but withdrew its notice on 13 February 1995, when Bauer did not invoice for the additional costs (R4, tabs 135, 148; tr. 1321).

54. On 3 February 1995, CHHI sent a letter to the government concerning the repair work it was performing on the first recompression chamber for the Aid Station building. CHHI planned to deliver and install the chamber during the first week of March 1995, but wanted to know at the earliest possible time whether it was to hold the chamber for additional work. CHHI was scheduling relocation of the recompression chamber in the FAT building (WBS 1001) for 20 March 1995. The letter referred to a verbal request that Mr. DeAngelis had made for cost estimates for additional repairs. CHHI proposed to manufacture a new console with new electrical wiring that would replace the deteriorated operator controls, and proceeded to perform this additional work although it was not included in the scope of Modification No. P00003. (R4, tabs 140, 620; tr. 841-42, 846) On 4 April 1995, CHHI sent a follow-up letter requesting a response (R4, tab 172).

55. By letter dated 3 February 1995, CHHI sent a letter to the government requesting attention to the matter of modifications to the electrical system in the Compressor building to avoid delays on the contract because it had not yet received direction after Mr. DeAngelis directed the preparation of cost estimates for the required modifications (R4, tab 139; tr. 1375-77).

56. On 15 February 1995, CHHI sent a letter to the government stating that based on its design calculations, the dimensions on the schematic drawings in the contract specifications (Part C6.25; finding 6, *supra*) for the structural arrangement of the escape trunk were not feasible (R4, tab 147; tr. 858-60, 1669, 1678). Messrs. Herblot and DeAngelis discussed the issue in phone conversations on 21 and 22 February 1995. Mr. DeAngelis confirmed which of the conflicting dimensions was incorrect and detailed clarification of the requirements in a letter, dated 9 March 1995 (R4, tab 164; tr. 860-61, 1678). Mr. Herblot needed further information concerning the appropriate arc length. CHHI was responsible for the design and, in the absence of information from the government, Mr. Herblot came up with the arc length himself, and proposed it as a substitute dimension on 29 March 1995. The arc length used was not the length in the VMW drawings, which Mr. Herblot found was incorrect. On the same date the government approved the design as acceptable. (R4, tabs 166, 168, 169; tr. 862-68, 1307, 1679-80, 1809) Mr. Herblot did not receive the level of assistance in resolving the inconsistencies in the drawings that he expected (tr. 867). Mr. DeAngelis felt that CHHI was unnecessarily and repeatedly bringing up ET design issues when he expected CHHI would be able to follow the VMW drawings (tr. 1680).

57. On 16 February 1995, the air compressors were tested at Bauer in accordance with the functional test plan required by the contract specifications. Mr. DeAngelis was present for the testing, but Mr. Herblot was not. The standard compressors which Bauer manufactured did not meet the specification requirement to process approximately 3,000,000 cubic feet (finding 39, *supra*). Mr. DeAngelis made a sketch of the configuration that was used and another that would meet the contract requirement. Hydromatics contacted CHHI, and Mr. Herblot erroneously understood from the conversation that a drawing had been missing from the

contract documents that provided the configuration requirements Mr. DeAngelis discussed with Bauer. Mr. George Hoppe, sales engineer for Bauer, acknowledged that Bauer modified the compressors to conform to the specifications. The modifications delayed delivery of the compressors to the site, but did not result in additional costs to Bauer because two of the purifications systems were not needed with the modified compressors and were returned to stock. (R4, tabs 150, 152, 153, 157; tr. 731, 733, 1003, 1007-09, 1498, 1509-13, 1761-64)

58. On 3 March 1995, Mr. Herblot inquired of the government by telephone, and followed up by letter, dated 8 March 1995, as to how it should proceed in the absence of available acrylic viewports for the ET that could be certified to PVHO (Pressure Vessel for Human Occupancy) standards as required by the contract (finding 12, *supra*). He had had experience with viewports and did not inquire before bidding about the availability of this item. After award of the contract, he contacted manufacturers in the industry and was surprised to learn from the ASME/PVHO Society that there were no holders of the certificate of authorization to manufacture ASME/PVHO viewports at that time. (R4, tab 162; tr. 870-74, 1309-10) Mr. DeAngelis responded promptly by letter, dated 9 March 1995, that, although there were no certified manufacturers temporarily, because the code requirements were being revised, Plastic Supply could provide the necessary paperwork to meet the contract requirements and its viewport would be acceptable (R4, tab 164; tr. 872; 1712-14). Mr. Herblot admitted that the government's response did not delay CHHI (tr. 1310).

59. Although in-house fabrication of phase one piping (WBS 700) was scheduled for completion by 15 February 1995,[4] CHHI did not follow up on its request for direction regarding the acid passivation requirement until 3 March 1995 (finding 43, *supra*). CHHI knew from oral discussions with Mr. DeAngelis that the requirement would be deleted. CHHI notified the government that it was canceling planned on-site work on 8 March 1995 and would begin acid passivation in accordance with the contract requirements if it did not receive written confirmation by 8 March 1995 that the requirement was deleted. CHHI stated that it would submit a claim for any associated delays. (R4, tab 159; tr. 799, 1704)

60. On 7 March 1995, Mr. DeAngelis sent written confirmation of deletion of the acid passivation requirement to CHHI with advice that a request for a deductive modification would be initiated. Mr. Herblot considered the delay of approximately four and a half months to receive an answer to the CHHI request for direction a lack of cooperation by the government. He testified a reasonable time would have been two, possibly three weeks. Mr. DeAngelis tried to respond to requests in no longer than 15 days and up to 30 days. Ms. Winterstein considered that the time would depend on the complexity of whatever specification problem was presented for approval and could be as long as two to three months. (R4, tab 160; tr. 370-71, 800-02, 1392, 1705, 1829) CHHI could not install piping in the trenches without knowing that it was not required to do the prior passivation. CHHI did not plan on doing the acid passivation based

[4] The schedule states 15 February 1994, which is an apparent typographical error (R4, tab 620 at 7).

on oral advice from Mr. DeAngelis. The lack of response from the government did not impact the CHHI schedule for doing the work. We find that Mr. Herblot chose to delay its on-site visit until receipt of written confirmation that the requirement was deleted from the specification. The record does not reveal any work that was performed out of sequence as a result or the manner in which engineering and administrative efforts may have been increased. Mr. Herblot could not specify how much of a delay was caused. He did not believe that the work was delayed for the full period of time that the government took to answer the CHHI request for direction. CHHI was able to finish the in-house fabrication of phase one piping (WBS 700) with the acid passivation requirement deleted, but did not do so until 27 April 1995, for reasons which are not revealed by the record. (R4, tabs 313, 620; tr. 356-57, 803, 1302)

61. CHHI reported monthly that its progress was on schedule until 7 March 1995, when it reported that there were potential delays from unresolved problems concerning the FAT, the ET, and installation of the recompression chambers (R4, tabs 619, 620; tr. 56, 1268). On 21 March 1995, during a CRB meeting, the government inspected the status of the contract work and became aware from a CHHI schedule that the contract could not be completed until September 1995, beyond the contract completion date of 7 May 1995 (R4, tab 177; tr. 60-61).

62. On 29 March 1995, CHHI delivered the air compressors to the site. At that time the hyperbaric piping had not been fabricated or delivered to the site. CHHI had changed its planned site visit for installation of the piping for the air compressors (WBS 800) from mid-February to 1 June 1995. Mr. DeAngelis decided on 12 April 1995, in lieu of modifications to the defective electrical system, that the government could issue a deductive modification for deletion of the electrical connections. The diesel compressor was operational, and CHHI could provide a temporary connection to a generator the government would make available as emergency power to test each of the three electrical compressors for acceptance of CHHI's Contract 4036 work. (R4, tabs 181, 621, 629; tr. 67, 1597)

63. On 3 April 1995, Mr. DeAngelis sent CHHI nonconformance reports (NCRs) of items that had been identified on 21 March 1995 as not conforming to the specifications. NCR # 0001 stated that four valves manufactured by Whitey were not in conformance with Military Specification MIL-V-24109 and were inconsistent with other valves which were of a different manufacture and thus not in compliance with the Standard Products provision in the contract specification. Mr. Herblot objected to receiving notice that the valves had to be removed nearly ten months after including the Whitey valves in CHHI's preliminary design. Mr. DeAngelis asserted that he was not aware before his field inspection that CHHI was installing Whitey valves in the scuba repair station. His concern was based on the difficulty and cost of getting spare parts to maintain valves of different manufacture. The government required CHHI to provide a plan for correction. (R4, tab 170; tr. 759-61, 1656, 1800)

64. On 4 April 1995, CHHI sent a letter to the government about the recompression chambers and verbal direction received from Mr. DeAngelis to change the pipe routing into the Aid Station building and change the configuration of the Haskell pumps in the OCC building. CHHI had not received written direction and was concerned with the potential impact of these items on its schedule. (R4, tab 172; tr. 914-17) The government promptly responded to the inquiry on 5 April 1995. Details of the pipe routing change were finalized with Mr. Burt and would be included in the next deviation letter. The change involved bending the pipe on the outside of the building instead of on the inside and moving the point where the piping entered the building so it went through a closet rather than a doctor's office. CHHI did not change its final design drawings to incorporate this change. About the same amount of work was involved in the changed installation. The government's letter also stated that the Haskell pump was to be installed in its frame. CHHI planned to mount the pump on the wall, but in its frame it could only be mounted on the floor, which required a change in the design and installation of the piping routed to the pump. (R4, tabs 140, 177; tr. 917-20, 922-23, 1095, 1411-13, 1716-21)

65. On 5 April 1995, in response to CHHI's question first raised on 3 February 1995, and again in its letter, dated 4 April 1995, regarding additional work on the first recompression chamber, Mr. DeAngelis informed CHHI that there were no funds available for the recompression chambers, but additional funds had been requested through "reprogramming" which would take an estimated 180 days. The government required new appropriations from Congress to make substantial repairs or procure new recompression chambers. Since the government knew CHHI planned to ship the first recompression chamber to the site in June, it advised that it would decide on contract modifications then. CHHI understood this letter as a directive to hold the first chamber until June 1995, and thought it might receive a brand new chamber or a chamber from some other activity to complete the contract work, as amended by Modification No. P00003. (R4, tab 177; tr. 200, 849-51, 929-30) This directive impacted the remaining contract work. Mr. Herblot testified:

> Q . . . [H]ow were you supposed to proceed with respect to the remaining work that had to be done?
>
> A It would have been extremely difficult, of course, if not impossible. However, as I mentioned, the government never provided us with a modification which would excuse us from not installing that chamber or testing it. But the government just told us that we were not going to get that chamber. And as I mentioned, they did not provide us with a modification to the contract for that.

(Tr. 926-27) CHHI did some rescheduling of its work because it would not be performing modifications on the second recompression chamber (tr. 930). The resulting additional

costs are alleged, but have not been included in appellant's claim or demonstrated by the evidence (app. br. at 27; R4, tab 563, att. 2, task 14; tr. 924-31).

66. On 5 April 1995, the government notified CHHI formally that the acid passivation requirement was deleted. The letter interpreted CHHI's letter, dated 21 October 1994 (finding 43, *supra*) as a request for a deviation that would waive the requirement in the contract specifications. The government stated that a deductive change would be included in an upcoming contract modification. (R4, tab 173; tr. 1706)

67. On 5 April 1995, the government confirmed Mr. DeAngelis' instructions for installation of the ET and advised CHHI that it would remove and replace the access hatches in the FAT roof. The letter interpreted CHHI's letter, dated 2 January 1995 (finding 52, *supra*) as a request for a specification deviation and stated that the approval was at no additional cost or time to the government. Should additional costs or time be required, CHHI was instructed to provide supporting documentation that would be considered for a possible contract modification for the deviation. (R4, tab 174; tr. 941)

68. On 11 April 1995, CHHI submitted its monthly progress report for March reporting for the first time that the project was delayed. CHHI's enclosed updated schedule showed contract completion on 6 September 1995. CHHI scheduled its next site visit for 1 June 1995, after completion of the fabrication of piping associated with the air compressors (WBS 606) on 5 April 1995, and other phase one piping (WBS 700) on 27 April 1995. Installation of the recompression chamber in the Aid Station building was to begin 2 June 1995. The revised schedule showed that the second phase (WBS 900) would begin 5 July 1995. In a separate letter CHHI requested an extension of six months in the completion date of Contract 4025. The contract provided for GFE air compressors, but the government failed to furnish this equipment for the contract, and since they were not available until 29 March 1995, CHHI considered the government responsible for a delay of 13 months. The government did not consider there was any government-caused delay because CHHI did not have the piping ready for the compressors to be hooked up when they were delivered. (R4, tabs 180, 181, 621; tr. 64-67, 96, 1581)

69. By letter dated 11 April 1995, CHHI objected to NCR # 0001 on the grounds that the Whitey valves in the scuba repair station served a specific function and were not similar to the other valves within the meaning of the Standard Products clause. CHHI stated that the government knew of its intention to supply these valves since 29 June 1994 from its preliminary design package. CHHI asserted that the rejection was contrary to paragraphs 1.2.1 and 1.2.2 in the contract specification imposing technical responsibility on the contractor. (R4, tab 179; tr. 759-61) Mr. DeAngelis responded by letter, dated 17 April 1995, that the government disagreed with CHHI's interpretation of the specifications, confirmed the nonconformance notice, and required replacement of the valves (R4, tab 184; tr. 759). By letter dated 26 April 1995, Ms. Pearson notified CHHI that the Whitey valves were unacceptable for noncompliance with the military specification and paragraph 1.2.5. of the contract specification. The contracting officer required replacement at no cost to the

government (R4, tab 194; tr. 104, 761). On 9 May 1995, CHHI furnished CPV manufacturer data concerning the needle valves it would install to replace the Whitey valves and gave notice it would submit an REA for the additional cost (R4, tab 207).

70. On 21 April 1995, Hydromatics, the distributor for the Bauer air compressors, sent an invoice for additional charges to CHHI in the amount of $1,755.24, which stated "FULL TESTING AND MODIFICATION TO AIR COMPRESSORS AS DIRECTED BY THE NAVY." (R4, tab 564, item 2 at 2) CHHI objected to payment because the changes were directed by the government, not CHHI, and had resulted from a "missing drawing" (tr. 1013). At the hearing Mr. Hoppe clarified on behalf of Bauer that additional charges were for the testing and not for the modifications to the air compressors. Mr. Herblot considered the testing required by the contract specifications. (Tr. 1011-13, 1513) Appellant submitted its repriced claim for delay and increased costs resulting from requirements for submittal of a functional test plan and for modification of Bauer's configuration of components in the air compressor package (R4, tab 247 at G001365).

71. On 24 April 1995, CHHI requested written confirmation of the government's intention for the on-site testing of the air compressors. On 25 April 1995, CHHI requested an extension of the completion date of Contract 4036 to 24 June 1995 for an unexplained delay in delivery of the air compressors. The government sent a letter, dated 25 April 1995, to CHHI that the request for extension of Contract 4036, which had a contract completion date of 11 March 1995, was without justification. The government required submission of reason for the delay within ten days. (R4, tabs 186, 188, 189) CHHI provided justification for a request for extension to 1 July 1995, in a letter, dated 5 May 1995 to the contracting officer based on the unresolved defective electrical system. CHHI had not received a contract modification that would permit proceeding with the functional testing of the compressors. CHHI's acceptance testing of the hyperbaric systems was delayed until the work providing electrical connections could be done. CHHI had provided a new electrical design and associated cost estimates to the government which involved meeting with the electrical inspector from the ROICC office, local subcontractors, and the facility engineer from the Army Corps of Engineers. CHHI also asserted government-caused delay in the delivery of the compressors from requiring the submission and review of a functional test plan and modifying the configuration of some components of the compressors. (R4, tab 205; tr. 998)

72. By letter dated 26 April 1995, the government denied CHHI's request for a six-month extension of the contract completion date of Contract 4025 because it did not consider the failure to deliver GFE air compressors delayed its performance. By letter dated 27 April 1995, the government noted that CHHI was behind schedule and would not be completing Contract 4025 by the corrected contract completion date of 15 May 1995. The government required CHHI to submit a request with adequate and complete justification for a no-cost time extension and warned that the failure to adequately respond "may result in the assessment of liquidated damages." On 5 May 1995, the government issued unilateral Modification No. P00004 correcting the contract completion date to 15 May 1995. (R4, tabs 11D, 195, 198; tr. 68-69)

73. On 27 April 1995, Mr. DeAngelis reviewed the several outstanding issues on Contract 4025 with the contracting officer: the concrete pad for the ET water holding tank, electrical problems for hooking up the air compressors which required additional funding, the grounding for the recompression chambers which required additional funding, and the recompression chamber issues. Mr. DeAngelis intended to resolve the matter of the recompression chambers that could not be certified in June if funding was not received by that time (R4, tab 199; tr. 1582-86).

74. On 1 May 1995, Mr. DeAngelis notified CHHI that the government would construct a concrete pad for the ET holding tank at a specific location outside the FAT building. The construction work was scheduled to be completed by 5 June 1995. CHHI did not receive formal notice of the prescribed location from the contracting officer. (R4, tab 200; tr. 688-89, 791-92, 1206, 1687)

75. On 1 May 1995, Mr. DeAngelis clarified that one diesel generator would be used for testing the compressors with CHHI's contractually required wiring and conduit to the locations where the future hyperbaric electrical panels would be located and there was no need for a deductive modification (R4, tab 201).

76. CHHI retained Mr. Walter Malyszek, an attorney with International Contract Management (ICM), as its contract administrator to assist in resolving the problems that had arisen on the contract and prepare a request for equitable adjustment. Mr. Herblot initially had confidence in his experience and expertise in government contract matters and relied on his advice. He gave Mr. Malyszek full authority to represent CHHI. Direct communication between government representatives and Mr. Herblot thus ended. (Tr. 722-23)

77. On 4 May 1995, CHHI invoiced the government under Contract 4025 in the amount of $27,154 from which the government made a deduction for ten percent retainage and $5,000 attributable to NCR # 0001 involving the Whitey valves.[5] When this invoice was processed on 18 May 1995, the total retention was $81,392. (R4, tabs 586, 659 at 13)

78. On 5 May 1995, CHHI submitted a certified REA for constructive changes to Contract 4025 in the total amount of $355,335 (R4, tab 206). CHHI stated a requested amount for each of the changes, but had no supporting explanation or data other than blanket statements such as "[l]ack of [c]ooperation" and "[i]nadequate specifications" (*id*. at 6; tr. 273, 1149). CHHI had not responded to the government's request for justification for its delayed performance of Contract 4025, but requested 476 days of delay and disruption costs caused in

[5] The government has stipulated that CHHI is entitled to the $5,000 retained for its replacement of the nonconforming valves. The amount was not paid to CHHI because it was not invoiced. (Tr. 104, 385, 501)

the period from contract award to 22 January 1995[6] representing delay throughout the term of the contract to the date of the REA (*id*. at 81; tr. 1285). The letter referred the contracting officer to Mr. Malyszek, if there were questions regarding the REA (*id*.; tr. 248-49). On 10 May 1995, CHHI submitted a certified REA for constructive changes to Contract 4036 in the total amount of $55,134 in the same summary format that was used for the Contract 4025 REA (R4, tab 211). Mr. DeAngelis considered the REAs "a joke" (tr. 206).

79. At meetings at Dillon Boiler on 9-10 May 1995, CHHI indicated its concern that the ET would not fit through the roof hatch of the FAT building and volunteered to measure the dimensions of the hatch at no cost to the government. The government made these measurements and advised CHHI on 15 May 1995, that there should be "no interference." (R4, tab 227; tr. 1899-1901)

80. On 15 May 1995, CHHI sent a letter to the administrative contracting officer regarding its REAs which stated that the contracts were required to be "definitized"[7] (R4, tab 217). Ms. Winterstein understood that CHHI wanted to negotiate contract modifications for equitable adjustments, but the contract itself was definitized (tr. 333). With respect to Contract 4025, CHHI stated that the added work from the constructive changes and delays in receipt of GFE prevented its contract performance. Specifically, the letter stated:

> This REA contains 16 Constructive Change Orders delineating added scope work performance and delays in the receipt of the Government Furnished Equipment (GFE) which precluded C. H. Hyperbarics from performing as per the contract. A Fixed-Price Contract contains three fixed elements, date of delivery,

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[6] CHHI did not explain this date in the REA. We understand that the government allegedly caused delay by its failure to deliver the GFE air compressors. They were available for factory testing in late January 1995.

[7] As Ms. Winterstein explained the term "definitize," it is used to refer to a follow-up to a unilateral contract modification:

> [A] unilateral is issued with a non-to-exceed [sic] amount of money.
>
> . . . .
>
> And it requires a contractor to submit a proposal for equitable adjustment for the work as changed. And once the negotiation is completed for that work, another modification is issued to definitize the amount of money for that work.

(Tr. 262)

> price and contract task. Not one of these elements were definitized and therefore, an element of preclusion arose on Contract N47408-94-C-4025. Therefore, the REA will be used to restructure the contract and re-define [sic] the task, date of delivery and price.

(R4, tab 217 at 1) With respect to Contract 4036, CHHI stated that constructive changes restructured the contract, and the contract needed to be definitized through negotiations. Specifically, the letter stated:

> This REA [under Contract 4036] contains 3 Constructive Change Orders which provide justification and substantiation for the delays caused by the Government during contract performance and in turn restructures the contract in its entirety. Therefore, the delivery date, the price of the contract and the task are no longer applicable to the contract and shall be definitized and/or negotiated via the REA.

(*Id.*) CHHI stated that it would continue performance in accordance with the contracts (*id.*).

81. On 16 May 1995, the contracting officer sent three contract modifications to Contract 4036 to CHHI (R4, tab 219). Modification No. P00002, undated, to Contract 4036 provided for the contractor to sign the document, but no signatures appear on the modification (R4, tab 101B; tr. 652-53, 1325). The modification states that the contract completion date was extended by 20 days to 30 March 1995 due to delays without the fault or negligence of the government. No additional cost was provided (*id.*). The modification provided for the following release by the contractor:

> Acceptance of this modification by the contractor constitutes an accord and satisfaction and represents payment in full for both time and money and for any and costs [sic], impact effect, and for delays and disruptions arising out of, or incidental to, the work as herein revised.

(*Id.* at 2)

82. Modification No. P00003, undated, to Contract 4036 also provided for the contractor to sign the document, but no signatures appear on the modification. Mr. Herblot did not recall being presented with or signing either of these modifications. (R4, tab 101C; tr. 653-54, 1325) Modification No. P00003 states that the contract completion date was extended by 67 days to 5 June 1995 due to delays without the fault or negligence of the contractor. These delays were attributable to the defective electrical system (R4, tabs 101C, 210). No additional cost was provided. The modification provided for the same

release that was in Modification No. P00002. (R4, tab 101C) The government did not grant an extension of the completion date of Contract 4025.

83. The government also issued a third modification, unilateral Modification No. P00004, dated 16 May 1995, to Contract 4036 to provide direction for the electrical connections required for testing the air compressors in the Compressor building. The modification deleted the three electrical compressors being "complete and usable" (finding 39, *supra*) and provided a temporary electrical connection to be used for the functional testing of the compressors. The deductive change was the deletion of conduit, wiring and electrical connections for three compressors. The additive change was installation of a temporary electrical connection that could be used one at a time for each of the three compressors. Mr. DeAngelis estimated the funding needed to cover the work at $1,972, but set the amounts of $894 to $902 as the government's objective in negotiations. The modification permitted the contractor to invoice for actual costs incurred in an amount not to exceed $1,000, subject to final negotiations. (R4, tabs 101D, 204; tr. 654-56, 994, 1738-40)

84. Unilateral Modification No. P00004 provided a definitization schedule for negotiations of the cost of CHHI's additional electrical work so that a bilateral modification could be executed 15 days after the date of the modification (R4, tab 101D). CHHI did not negotiate the cost of the work performed and received a unilateral modification with the definitized price in November 1995 (finding 128, *infra*). By letter dated 19 May 1995, CHHI first "rejected" the three modifications it had received "in their entirety" (R4, tab 228). The contracting officer sent a clarification that CHHI did not have an option to reject a unilateral modification. CHHI took the position that the modification had an improper impact on price, delivery schedule, and scope of work of the original contract and requested reissuance as a bilateral modification (R4, tabs 237, 239). By letter dated 8 June 1995, the contracting officer denied the request and directed CHHI to continue contract performance in accordance with the Changes clause. The letter noted that CHHI's cost proposal was delinquent according to the negotiations schedule in the modification and its failure to proceed could be a basis for a termination for default. (R4, tab 241) CHHI's cost proposal forwarded on 16 June 1995, incorporated its subcontractor Keevan's cost in the amount of $2,670 and totaled $4,042 (R4, tab 250; ex. A-54). CHHI provided supporting justification in response to government requests before negotiations were scheduled. On 8 September 1995, in response to a government request for clarification, CHHI revised its cost proposal to $2,818 (R4, tab 291 at G003878). Mr. Patrick Malyszek, who worked at ICM with Mr. Walter Malyszek, demanded full acceptance of the CHHI proposal and declined to participate in negotiations scheduled for 14 September 1995, or resume them when invited to do so on 25 September 1995 (R4, tabs 251, 291, 299, 339).

85. By letter dated 25 May 1995, CHHI authorized Mr. Walter Malyszek and Mr. Patrick Malyszek of ICM to negotiate all matters relating to the contracts. Mr. DeAngelis did not like dealing with Mr. Walter Malyszek and thought he did CHHI "a disservice" (tr. 216). Ms. Winterstein described the relationship as "a little bit adversarial"

at that point, and Ms. Dearing found it more difficult to deal with CHHI once everything was to go through the contract administrator. As a result of this representation, there was "basically a hostile relationship" with the contractor, according to the government (tr. 255, 399). In December 1995, CHHI advised the contracting officer that Mr. Walter Malyszek was CHHI's attorney for all matters concerning the contracts. When Mr. Herblot became dissatisfied with his work, he terminated ICM as CHHI's legal counsel and retained counsel of record in these appeals.[8] Mr. Herblot realized that the problems could have been resolved easily if Mr. Malyszek had not been working for CHHI. (R4, tabs 232, 360, 377; tr. 722-25, 1148-49, 1153, 1155-56, 1392, 1735-36, 1747)

86. By letter dated 30 May 1995, Mr. DeAngelis confirmed that CHHI should not be concerned with the distortion of the ET flange. Representatives of the ROICC office and the building contractor would be present when the ET was installed to identify any problems caused by the distortion, and the building contractor, not CHHI would be responsible. (R4, tab 235)

87. By letter dated 31 May 1995, the government advised CHHI that it could not process the REAs without supporting documentation, which it required be submitted no later than 12 June 1995 (R4, tabs 237, 240). On 9 June 1995, CHHI asserted that the government had referred to its REA as a claim and it would, therefore, address the REA as a claim. It objected to the quick response date and stated when it would provide additional information to facilitate a fast resolution. (R4, tab 243) By letter dated 14 June 1995, Keevan charged CHHI $5,375 for additional work cutting and replacing sidewalks and pavement in conjunction with the trenching. The charge for costs incurred was made by letter requesting the amount be added to the purchase order rather than by formal invoice or bill. This amount has not been paid. (R4, tab 244; tr. 1277, 1523-24) On 16 June 1995, CHHI submitted supporting data for the underlying certified REAs under both contracts that we find constituted claims as of this date. CHHI stated that it was combining two similar items, # 5 and # 9, which involved the ET holding tank and diver's manifold free ascent tower under Contract 4025 (R4, tabs 247, 248).

88. On 22 June 1995, CHHI notified the government that it would complete the repair work on the first recompression chamber by 15 July 1995. It stated that it needed to have the second recompression chamber available no later than 31 July 1995. The second chamber that was installed and in use in building C-59 was not to be taken out of service until one could be available for continued training. CHHI asserted it could have shipped the recompression chamber as early as April 1995, but the contemporaneous documentation shows that it was not ready to ship it until July 1995 and was not, therefore, holding it solely as a result of the

[8] On 10 September 1996, CHHI advised the Board of the termination and requested that ASBCA Nos. 49375, 49401, and 49882 not be dismissed with prejudice for failure to prosecute pursuant to a Board Order to Show Cause. On 16 January 1997, Joseph A. Camardo, Jr. filed his notice of appearance in the appeals.

government failing to provide direction about shipment or additional repair work pending its receipt of additional funding. (R4, tab 252; tr. 843, 850, 1587-88)

89. On 10 July 1995, CHHI submitted its progress report for May and June. The enclosed updated schedule showed contract completion on 5 October 1995. The revised schedule showed that the second phase (WBS 900) would begin 31 July 1995. CHHI stated that all material was received or on order. CHHI invoiced the government for the balance of 100 percent of the value it assigned to material purchases at the time of bidding. The enclosed invoice for work performed in May and June was in the amount of $25,241. The government made deductions for retention at the rate of ten percent and for the first time made deductions for the assessment of liquidated damages for 57 days from 15 May 1995 to 11 July 1995, in the amount of $19,950. Payment of the invoice was in the amount of $2,767. (R4, tabs 588, 589, 623; tr. 73, 77, 80, 382-84)

90. On 14 July 1995, CHHI was on site for Keevan to install the ET. Mr. Herblot and Keevan had concerns about the ET fitting through the roof hatch. They attempted unsuccessfully to have a crane drop the ET through the hatch while government personnel moved the benches and side railings. CHHI then installed the ET in the building using a government forklift through a side door, which was an allowable method of installation. After it was placed in the building, the crane at the roof hatch lifted it for putting on the legs and placing it properly in the building. The crane was needed for the installation, but the work took eight rather than four hours as a result of the government instruction to use the roof hatch. (R4, tabs 255, 263, 264; tr. 937-38, 945-52, 1318-20, 1722-26, 1902-03)

91. On 19 July 1995, CHHI bolted the ET to the warped flange on the FAT using more manpower and stronger bolts as necessary to flatten the flange and get a watertight seal. The ET was checked and found to be level in all directions, but the potential effect of the distortion was undetermined as long as the FAT was not filled with water. (R4, tabs 263, 544 at 13; tr. 813-15, 817, 1710)

92. On 19 July 1995, CHHI submitted its functional test plans for the Aid Station, OCC, and Compressor buildings. Government comments identified items not in conformance with the specifications, and CHHI agreed to provide an addenda to the test plans. CHHI scheduled the testing for 7-10 August 1995. (R4, tabs 238, 259, 267, 268)

93. The government did not make the second recompression chamber available to CHHI for modifications as CHHI had requested because it did not receive the required additional funding. Costly changes were required if the recompression chambers were to be certified for human use. On 26 and 27 July 1995, Mr. DeAngelis discussed with Mr. Herblot a no-cost field deviation as an alternative to repairs or replacement of the recompression chambers. By letter dated July 27, 1995, Mr. DeAngelis sent the deviation, entitled "Specification Deviation – RECOMPRESSION CHAMBERS FOR FREE ASCENT TOWER AND AID STATION" to CHHI. The deviation was as follows:

1. Test recompression chamber in Aid station as specified in contract specifications (including appendix D test).

2. Upon completion of testing do not disassemble, remove, and ship to CHHI the recompression chamber currently in operation at building C-59 as specified in the contract specifications (1.1.4, 3.2, etc.).

3. All hardware for recompression chamber (chamber in building C-59) that was to be installed at CHHI facility, shall be shipped to the site with the next shipment of materials that CHHI is delivering for other installation of piping and instrumentation on the contract. The materials shall be delivered to the Compressor Room and turned over to the Government in a Location specified by the Government. Final inspection of the hardware shall be conducted by the Project Engineer at the next Construction Review Board conducted on site after the hardware is delivered.

4. In accordance with CHHI's schedule for the original chamber installation in the Free Ascent tower, CHHI shall disconnect the recompression chamber from the Aid Station (properly capping, via CPV blank tailpieces, aid station piping to ensure integrity of piping is maintained), move the chamber out of the Aid Station, and install this chamber in the Free Ascent Tower.

5. The chamber shall be fully functionally tested, per contract specifications as if it was the building C-59 chamber, including the USN pressure test, during the Functional Test of the Free Ascent Tower.

(R4, tab 266) Mr. DeAngelis's letter informed Mr. Herblot that this deviation was a no-cost field change and instructed him that if he disagreed with the deviation, he should provide supporting information that additional cost or time was required to perform the deviation. CHHI did not respond to the letter (tr. 195-97, 202, 1177-78, 1575). CHHI received this deviation, but the contracting officer did not send CHHI anything that Mr. Herblot would consider "official" (tr. 1202) as he expected from Mr. DeAngelis's "reprogramming" directive, dated 5 April 1995 (finding 65, *supra*).

94. On 2 August 1995, CHHI submitted its invoice for work done in July in the amount of $14,618. The government made deductions for ten percent retention and an additional 32 days of liquidated damages from 12 July 1995 to 2 August 1995 in the amount of $7,700. Payment of the invoice was $5,456. (R4, tab 590; tr. 106)

95. The government inspected the installation and witnessed the functional acceptance testing of the hyperbaric systems, which began on 7 August 1995, on site. Mr. Thompson's memorandum report, dated 18 August 1995, discussed the testing of the Aid Station, OCC, and Compressor buildings and provided a list of the punch list items (R4, tab 278). The satisfactory testing of the air compressors involved CHHI's remedial work to connect each of these systems, one at a time, to one of the two existing electrical source panels located in the Compressor building (finding 83, *supra*). CHHI was able to make the connections using an approximately 60 foot long wire lead with minimal assistance from Keevan, its electrical subcontractor, and without special modifications to any electrical equipment. This work was easier than the permanent connections required by the contract specifications. The hook ups took approximately four hours. CHHI did not purchase new wire, but was able to make use of a used wire. CHHI's electrical subcontractor was on site for only the first hook up for approximately three hours on 7 August 1995. (R4, tabs 269, 270, 278, 339 at G003809-10; tr. 738-39, 994, 1735-36, 1743-49)

96. The testing of the recompression chamber in the Aid Station building was stopped for safety reasons. The pressure test could not be conducted because the integrity of the welds was unknown without x-ray testing, which had not been done in the absence of government funding. The fact that the recompression chamber could not be certified for human use did not prevent the government's acceptance of the Aid Station building. CHHI did not perform any work on site after 11 August 1995. (Tr. 196, 953, 1169, 1197, 1569)

97. On 28 August 1995, CHHI invoiced the government for work performed in August in the amount of $16,135. The government made deductions for ten percent retainage, an incomplete task involving user indoctrination in the amount of $860, and an additional 26 days of liquidated damages from 3 August 1995 to 28 August 1995 in the amount of $9,100. Payment of the invoice was $4,562. When this invoice was processed, the total retention was $81,991. The total contract payments were $695,311, an amount which approximates 80 percent of the total contract price. (R4, tab 591; tr. 107, 671)

98. The nonpayment of invoices and withholding of liquidated damages had a significant impact on CHHI. We find the total amount of $148,750 had not been paid under Contracts 4025 and 4036 as of the end of August 1995.[9] (R4, tabs 357, 570, 591, 610, tab 659 at 13; tr. 1119). CHHI stopped requesting payments because it was no longer worthwhile. Mr. Herblot felt like he was "working for the government for nothing." (Tr. 108-09, 670-72)

99. On 29 and 30 August 1995, there were telephone discussions between Messrs. Herblot and Burt and Mr. DeAngelis regarding the location of the ET holding tank. Mr.

[9] This amount includes retention of $81,991 on Contract 4025; retention of $24,149 on Contract 4036; liquidated damages of $36,750; $5,000 for nonconforming valves; and $860 for the incomplete task (findings 77, 89, 94, 97).

Burt stated that CHHI had not received information about the location. Mr. DeAngelis referred him to the 1 May 1995 letter which resolved the question (finding 74, *supra*). The concrete pad was installed by the government as scheduled. CHHI did not consider the notification that this was the location for it to install the tank proper. CHHI also did not consider the outside pad adequate because it was not fenced and did not have a roof. Protection was needed because the equipment was electrical. The change in location to the outside concrete pad required substituting a larger pump, more piping, and increased electrical distribution, which CHHI was not prepared to undertake without discussing the costs of modifications with the government and obtaining government funding. Mr. DeAngelis mentioned the possibility of a deductive modification for the designation of the location outside the FAT building. Mr. DeAngelis was concerned that CHHI was developing a case to claim government responsibility for delay in contract performance according to a memorandum, dated 11 September 1995, that he sent to the contracting officer recording the discussions of the ET holding tank. He did not think CHHI was cooperating. (R4, tabs 289, 544 at 22; tr. 689, 792, 954-57, 1032, 1221, 1295, 1680-83, 1686-89)

100. On 29 August 1995, Ms. Dearing sent CHHI copies of the contract provisions concerning liquidated damages in response to a request from CHHI's contract administrator. By letter dated 31 August 1995, Mr. Patrick Malyszek objected to the government's improper withholding of payment on CHHI's invoices for work performed and forwarded copies of documents concerning the recompression chambers and air compressors that allegedly constituted changes in the contract. He accused Ms. Pearson of fraudulent acts amounting to economic coercion and economic duress based on the withholding from CHHI's invoices. (R4, tabs 283, 284)

101. On 6 September 1995, after the August on-site work, CHHI prepared purchase orders for approximately $20,000 for materials needed for the FAT to complete the contract work. One purchase order was for the ET holding tank in the amount of $4,870. Mr. Herblot instructed Mr. Johnson not to issue these purchase orders because of insufficient funds. CHHI had spent the full amount budgeted for materials, but not all were received as previously indicated in its monthly report (finding 89, *supra*). (R4, tab 287A at 17; tr. 674-75, 1031-32, 1213-14, 1254-55, 1263, 1356-57, 1402-05, 1697-98)

102. Ms. Dearing, the contract specialist, prepared a business clearance memorandum involving the REAs that was approved by Ms. Pearson on 11 September 1995. On 22 September 1995, Ms. Pearson issued her determination denying parts of CHHI's REA under Contract 4025 and informing CHHI that if it disagreed with the determination, it could request a final decision by the contracting officer pursuant to the Disputes clause (R4, tabs 288, 297; tr. 365). Allegations under all the parts that were considered were denied in their entirety. The remaining allegations were denied by contracting officer decisions, dated 12 October 1995, and 29 December 1995 (R4, tabs 317, 378). CHHI did not request a final decision, but continued to demand favorable resolution of the REAs until filing a request that the ASBCA direct the contracting officer to issue a final decision (finding 117, *infra*).

103. On 18 September 1995, Mr. DeAngelis sent a request to the contracting officer to initiate a deductive modification for the deletion of the acid passivation requirement. He enclosed a cost estimate in the amount of $15,919. (R4, tab 295; tr. 1707-08)

104. On 25 September 1995, Mr. DeAngelis requested that Ms. Pearson send CHHI a partial beneficial occupancy letter for the hyperbaric systems so that the Aid Station, OCC, and Compressor buildings could be turned over to the user. The systems in these three of the four buildings were considered complete and usable as tested, and he wanted them accepted. Mr. DeAngelis pointed out that the acceptance would "[a]llow . . . the warranties to start on a [sic] specific areas and allow . . . release of retention for the areas bought." (R4, tab 300) Punch list items of work required to be completed could be provided to CHHI in the letter. (*Id.*; tr. 109-11, 672-74)

105. By letter dated 25 September 1995, to CHHI, Ms. Pearson expressed the government's concern that its lack of efforts indicated that it did not intend to complete the contract. The letter noted that liquidated damages were accruing for failure to perform within the time required. Ms. Pearson requested a statement of any excuses within ten days and raised the possibility of a decision to terminate the contract for default. (R4, tab 298)

106. On 27 September 1995, Ms. Pearson sent CHHI a letter of acceptance of the Aid Station, OCC, and Compressor buildings for the government's beneficial occupancy of these three buildings. The buildings were substantially complete on 27 September 1995 (the beneficial occupancy date or BOD), but the government continued to withhold its retainage for this part of the work. Mr. DeAngelis expected a request for release of retainage from CHHI before transferring these funds under the notion that it was the contractor's decision to obtain release of retainage under Contract 4025. CHHI did not submit an invoice to the government for release of the retainage. Ms. Dearing explained that since there was a single line item in the contract and CHHI invoiced its costs by task with tasks overlapping and some work had been done on the FAT, there was "no way" to "break down the cost for each building." (Tr. 460) Without knowing the agreed contract cost for each building, the government found it impossible to release the amount of $81,991 that had been retained from CHHI to date and refused to provide any portion of these funds to CHHI for continuation of the contract work. The contracting officer was contemplating a default termination at this time (finding 105, *supra*). Although the contracting officer had evidence of CHHI's progress in monthly submittals on which it could have estimated the cost of the three buildings, the government did not take the initiative to do so in the absence of a request from CHHI. For this purpose the contracting officer treated the contract as a supply contract rather than a construction contract and would not release retainage until there was full acceptance of the completed work at the end of the contract (tr. 470). The BOD letter listed the outstanding (punch list) items for completion of the contract work in an enclosure and requested submission of a proposed scheduled completion date for each item. On 27 September 1995, the contracting officer also issued a letter of acceptance for Contract 4036 and requested a similar schedule for

completion of the punch list items that were listed. (R4, tabs 301, 302; tr. 114-15, 181, 188-89, 221, 230, 388, 459-62, 470-72)

107. On 2 October 1995, CHHI submitted an invoice in the amount of $24,149 for amounts retained on Contract 4036. On 11 October 1995, the contracting officer returned the invoice as not properly submitted and not payable in full because CHHI had not completed all the punch list items. CHHI and Bauer completed all the requirements of Contract 4036 before Contract 4025 was terminated. The government did not, however, pay CHHI any of the withheld amount. (R4, tabs 610, 611; ex. A-75; tr. 1936-38, 1950-51).

108. On 5 October 1995, Mr. Patrick Malyszek sent CHHI's response to Ms. Pearson's 25 September 1995 request for CHHI's excuses for delay (R4, tab 312). CHHI's position was that as a result of the government's failure to respond to requests for direction concerning (1) the location of the ET holding tank, (2) requests for engineering recommendations regarding the air compressors that were added work, (3) the extended completion date of Contract 4036, and (4) the defective electrical system provided for the air compressors, it was delayed. He asserted that the government either failed to provide clarification and direction in response to CHHI requests or failed to issue notification to CHHI as a formal change to the contract. CHHI's position was that the government had failed to finalize contract changes and definitize Contract 4025 with the result that Contract 4025 was undefinitized. CHHI had submitted REAs to facilitate contractual definitization and claimed the contracting officer had failed to respond to them. CHHI alleged that the issuance of Modification No. P00004 to Contract 4036 was economic coercion to obtain contract performance without proper compensation. Mr. Malyszek concluded his letter as follows:

> To date, the Government continues to preclude CHHI from performing on both of the above mentioned contracts due to the Government's failure to respond to the numerous requests made by CHHI during the performance of the contracts and the REAs submitted to the Contracting Officer to definitize the contract.

(*Id.* at 5)

109. On 9 October 1995, CHHI sent a single response to the government's letters, dated 27 September 1995, about the punch list items and the possibility of default (R4, tab 313). The letter began:

> Per you[r] request, C. H. Hyperbarics (CHHI) presents for your review a schedule of completion of the items addressed in the subject letters. The schedule as presented is based upon the definitization of the outstanding tasks presented in the REAs.

(*Id.* at 1) Appellant did not provide a schedule for each punch list item, but proposed a revised schedule as of 6 October 1995 for the whole project (the October schedule) that was marked, "tentative pending definitization of contract and negotiation of modifications and REAs" (*id.* at 4). CHHI planned one more site visit on 14 December 1995 for the installation in the FAT building and would complete the contract by 1 February 1996. The schedule showed the fabrication of FAT piping (WBS 900) in December. With respect to default, CHHI's position was (1) the government waived any right to default by its request for a new contract completion schedule, (2) the contract completion date was waived and the contractor was entitled to complete the work in a reasonable time as shown in the October schedule, and (3) performance had been precluded by the government's failure to provide directives that would definitize the tasks set forth in CHHI's REAs. CHHI requested the agenda for the CRB scheduled for 10 October 1995. (R4, tab 313; tr. 117, 694-99, 1030-31, 1218, 1355) In this letter CHHI objected that Ms. Pearson's determination on the REAs was improper because they were claims (findings 87, 102, *supra*). The letter stated:

> This act can only be construed as an act of economic coercion in an attempt to have CHHI perform work not covered under the contract and for the Government to receive something for nothing. Due to your actions, CHHI has no alternative except to . . . [claim] consequential damages.

(*Id.* at 2)

110. On 10 October 1995, Mr. DeAngelis advised the contracting officer that he wanted to terminate the contract. According to him, CHHI was asserting control, and he objected to the "cavalier attitude" expressed in CHHI's 9 October 1995 letter. (R4, tab 314; tr. 123-24)

111. CHHI had remaining in-shop work welding, piting (a process of non-destructive testing of the piping), and hydro testing all of the pipes for the FAT building. There was also subcontract work, including completion of the panel for the escape trunk. CHHI did not stop working on the contract. (R4, tab 321; tr. 675, 706-07, 714-15, 961-62, 1207-08)

112. On 11 October 1995, Mr. DeAngelis attended a CRB meeting at CHHI. Mr. Herblot was unable to stay for the discussions and we find authorized Mr. Burt to represent CHHI. Mr. Burt said that CHHI could be on site within three days upon receipt of certain directions from the government to complete the contract work, but later advised Mr. DeAngelis that he was not authorized to deviate from CHHI's October schedule (finding 109, *supra*). CHHI withdrew Mr. Burt's representation because of an agreement it had with Mr. Walter Malyszek that he would review all work schedules prior to CHHI making commitments to the government. CHHI was requesting direction involving the location of the ET water holding tank and receipt of the second recompression chamber that it was to outfit and install. (R4, tab 321; tr. 127-28, 712-13, 1198-1207, 1215)

113. During the CRB meeting Mr. DeAngelis found that not all of CHHI's required materials, including the ET water holding tank, had been ordered, and he did not see employees working on Contract 4025. He did not view the entire CHHI facility, and his observation of the status of CHHI's in-shop piping fabrication therefore, was limited. Mr. Alan Schmutz, a government engineer who was present, did not see a lot of contract materials in the shop. Mr. Burt told them that work was being performed at subcontractor facilities. Mr. DeAngelis had noticed in monthly reports that CHHI was reporting schedules that were slipping and considered CHHI responsible for delay due to its improper scheduling and failure to complete scheduled tasks. For these reasons Mr. DeAngelis believed that CHHI had stopped work. (R4, tab 321; tr. 125-27, 208-09, 223, 1207-09, 1834, 1883, 1891)

114. Mr. DeAngelis prepared a schedule for CHHI to complete the contract by 3 December 1995 that he considered reasonable. For the schedule to be accomplished, he set a condition of on-site work the week of 23 October 1995. He based his schedule on review of the contract drawings after the BOD of 27 September 1995. He identified items that he could not confirm were completed and the punch list items that remained. He did not rely on CHHI's October schedule (finding 109, *supra*). The schedule he prepared was for internal government use in preparing a unilateral modification that would reestablish the contract completion date. (R4, tabs 12E, 326; tr. 109, 120-23, 129-30, 209)

115. On 12 October 1995, Ms. Pearson sent a letter to CHHI stating that its submission of a proposed schedule for the punch list items was unsatisfactory because it did not address the items line by line. The letter stated that liquidated damages were continuing to accrue at the rate of $350 per day from the contract completion date of 15 May 1995. (R4, tab 319; tr. 124)

116. On 16 October 1995, CHHI sent the government a schedule of work to complete the punch list items in the acceptance letters, dated 27 September 1995, for both Contracts 4025 and 4036. This schedule showed that the on-site work would not be done until the week of 11 December 1995, with final submittals made on 12 January 1996. (R4, tab 323; tr. 128-29)

117. On 16 October 1995, CHHI filed with the ASBCA a request that the contracting officer be directed to issue a final decision on its REAs submitted to the contracting officer over five months earlier (R4, tab 324). CHHI asserted that the REAs were disputed as of 9 June 1995, and it was entitled to a final decision on its claims within 60 days. CHHI's letter stated:

> CHHI is performing on the subject contracts without contractual coverage and is thereby financing the contracts due to NAVFAC's failure to respond to the Requests for Equitable Adjustments (REA). The REA's [sic] must be settled in order to definitize the contract task and the final cost impact upon CHHI.

(*Id.*) The Board docketed the matter as ASBCA No. 49245. In response to the Board's order to show cause, the government agreed that the REAs constituted claims and stated that it would issue a final decision by 29 December 1995. (R4, tabs 334, 335; tr. 249, 293-95)

118. On 19 October 1995, CHHI sent a letter to the contracting officer detailing the defective specifications and government delays that had allegedly precluded its performance of the contract. CHHI stated that receipt of the GFE recompression chamber that was not in good working order and failure of the government to notify CHHI formally about installation of the recompression chambers precluded its continued performance. The contract had originally provided only for relocation and testing of the chambers, but a contract modification was issued for CHHI to rework the chambers to meet the requirements for certification of the chambers for human use. Radiographic examination of the welds on the chambers by an outside vendor was required to verify the integrity of the welds or identify the additional repairs that would be required for certification. The government allegedly delayed on-site work related to the recompression chambers pending the procurement of additional funding. The government did not timely deliver a certifiable recompression chamber for CHHI to install in the FAT, but on 27 July 1995, had directed CHHI to relocate the recompression chamber from the Aid Station building and test it in the FAT (finding 93, *supra*). When the government knew funding was not available for it to fulfill this obligation, it did not modify the contract to provide for CHHI's completion of the contract without the contractually specified GFE. CHHI would not be able to furnish a hyperbaric system for the facility that would be complete and useable without certifiable recompression chambers or deletion of the testing requirements for the chambers and the performance standard for the facility. (R4, tab 327; tr. 830-31, 1346, 1770-71)

119. In its letter dated 19 October 1995, CHHI objected to the contracting officer's failure to "definitize the contract" (R4, tab 327 at 2). The letter concluded as follows:

> As of this date, the Government has failed to correct any of the inherent problems found in the specifications and continues to demand that CHHI perform tasks which contain no contractual coverage. Nor has the Government put forth any reasonable solution to definitizing the contract. Until CHHI receives proper contract coverage for the items identified in the REAs, contract activities shall be in a Constructive Stop Work situation.

(*Id.* at 4) The government did not ask CHHI what it meant by a "[c]onstructive [s]top [w]ork" situation. The government interpreted the reference to a "constructive stop work" situation to mean that CHHI had stopped work. We find that CHHI implied that it needed satisfactory resolution of the testing of the recompression chambers, location of the ET tank, and possibly other problems raised in the REAs that would provide it with a clear and definite plan for proceeding and make funds available for it to order materials and continue work.

The government considered that CHHI was refusing to perform pending a dispute. The government proceeded with a plan for issuance of a default termination. (Tr. 275-77, 520, 1347-48)

120. On 23 October 1995, the government issued unilateral Modification No. P00007 to reestablish the completion date for Contract 4025 as 11 December 1995. The modification directed the contractor to proceed with the remaining contract requirements in CHHI's October schedule. The completion date of 11 December 1995, however, is not contained in CHHI's October schedule. With a reestablished completion date, the government contemplated issuing a cure notice if it appeared the contractor was not going to meet the date. (R4, tab 11G; tr. 182-86, 279-84, 1225)

121. At the time the government reestablished the completion date, a total of $36,750 in liquidated damages had been withheld from CHHI invoices (findings 89, 94, 97, *supra*). The government did not release the liquidated damages that had been withheld and did not notify CHHI that it was continuing to assess liquidated damages for delay (tr. 853, 964). We find Mr. DeAngelis's assertion that contract completion had not been changed according to advice he received from counsel inconsistent with the terms of Modification No. P00007. The government was aware of CHHI's limited financial resources, but also continued withholding the ten percent retainage in the total amount of $106,140. (R4, tab 331; tr. 186-90, 284-85, 703-05, 717-18, 853)

122. On 24 October 1995, CHHI submitted its monthly progress report for September with the October schedule. CHHI reported the work performed for the FAT piping during September and its plans to manufacture all interconnecting piping for the ET and console in October. Mr. DeAngelis remained seriously concerned that CHHI was stopping work. (R4, tab 627; tr. 108-09)

123. By letter dated 24 October 1995, CHHI objected to the issuance of Modification No. P00007 asserting that the government had breached the contract by its failure to make payment for work performed and that liquidated damages were improperly withheld. CHHI also claimed that the modification was unauthorized and invalid, the REAs required resolution, and the contract needed to be definitized. CHHI did not address the feasibility of the government's completion date. CHHI considered the direction in the modification to continue performance invalid and invoked "its right per CHHI letter of October 19, 1995." (R4, tab 330 at 2; finding 118, *supra*; tr. 1229-30) We find that CHHI was thus continuing to claim that it was justified in refusing to proceed with the contract work.

124. On 24 October 1995, Mr. DeAngelis sent a memorandum to the contracting officer requesting contractual action to "initiate numerous deductive modifications to the contract" for changes that had occurred in the project. This was the first discussion of deductive changes, other than deletion of the acid passivation requirement, with the contracting officer. (R4, tab 332; tr. 350) With a few exceptions, he had not previously indicated to CHHI that he wanted to reduce the contract price for deductive modifications. He provided examples of his

recommended deductions that include four of the five matters in issue in these appeals. He requested a deductive modification for installation of the recompression chambers in the FAT since "[t]he chambers are not acceptable for use after non-destructive testing was conducted on them" (*id*. at 2), but it was not issued to CHHI. This memorandum states the government's plan for CHHI's completion of the contract as follows:

> This deductive is a follow-on to the deviation (no cost field change) that was sent to CHHI on 27 July 1995. The deductive costs will include labor to remove chamber, equipment to move chamber out of Aid Station, fork lift to move chamber to FAT, crane to install chamber in FAT (60+ feet) and labor to connect, operate and functionally test the chamber in the Free Ascent Tower.

(*Id.*) Mr. DeAngelis recognized that testing of the chamber could not be conducted for safety reasons (finding 96, *supra*), and there was no reason to move it to the FAT. The government did not advise CHHI of this plan. Mr. DeAngelis was influenced in requesting deductive modifications by information that CHHI had begun an appeal at the ASBCA. (*Id.;* tr. 720, 1644, 1772-73, 1929-30)

125. On 27 October 1995, four days after the government reestablished the contract completion date, the government sent CHHI a ten-day cure notice based on its allegedly not continuing performance of in-house shop work and its absence from on-site work as conditions endangering performance of the contract. The contracting officer did not take into account CHHI's September progress report or ask CHHI about the status of its in-shop work, but assumed that CHHI had stopped work, in reliance on Mr. DeAngelis's observations at the 11 October 1995 CRB meeting. During the four days between the reestablishment of the contract completion date and the cure notice, CHHI did not provide further information about the status of its work. The notice directed CHHI to provide written assurances of its intent to continue performance. The government sent a copy of the notice to CHHI's surety, National American Insurance Company, so that it could encourage CHHI to complete the contract. (R4, tabs 331, 333; tr. 130, 397, 714, 718-19, 959-62)

126. On 31 October 1995, CHHI responded to the cure notice. No written assurances to continue performance were provided, but Mr. Herblot considered the October schedule, its percentage completion and having worked without payment assurance that it intended to complete the contract. CHHI stated that the pending work was "not possible" and it was "precluded from performing on the contracts due to the government's failure to definitize the subject contracts" (R4, tab 336 at 1). Mr. Herblot testified that he meant that the government had not provided material such as the recompression chamber needed to complete the contract and had not resolved open items so that CHHI would know what the government wanted it to do. CHHI maintained in the letter that the ASBCA had jurisdiction over issues involving the definitization of the contract and no further action could be taken by CHHI or the contracting officer until the ASBCA issued its decision. CHHI also challenged the authority of Ms.

Pearson to issue the cure notice. The government interpreted this letter as stating that CHHI would not continue to perform unless it was paid on its REAs and considered it an inadequate response to the cure notice. (R4, tab 336; tr. 490, 962-64, 966, 1349-50, 1680-81)

127. Unilateral Modification No. P00006, dated 3 November 1995, to Contract 4036 provided the definitized price of the CHHI work performed pursuant to Modification No. P00004 for the electrical connections needed to test the air compressor systems (R4, tab 101F). Mr. DeAngelis evaluated CHHI's proposal for $2,818 in terms of the actual time and materials used to perform the connections and a comparison of the work performed with the work deleted from the contract. The final amount for the changed work was $910, which was a decrease of $90 from the $1,000 not to exceed amount in unilateral Modification No. P00004. (R4, tabs 250, 269, 339; tr. 740-42, 996-97, 1735-37, 1741-48) CHHI has clarified that its claim is for the difference of $1,907 that was not paid for the additional work pursuant to Modification No. P00006 (R4, tab 564, item 8; tr. 996).

128. On 9 November 1995, Ms. Middlebrooks, in a contracting officer's final decision, sent CHHI notice of termination for default of Contract 4025 with a copy to CHHI's surety. CHHI did not resume work after receipt of the cure notice, according to the government, or provide assurance of continued performance that the cure notice required, and its failure to perform was considered inexcusable (R4, tabs 342, 346; tr. 131, 965-66). The decision specified the default as follows:

> Your failure to respond [to the cure notice, dated 27 October 1995] is taken as an admission that no valid explanation exists.

(R4, tab 346 at 1)

129. Mr. Herblot explained why CHHI did not or could not finish the contract work in the FAT building as follows:

> [W]e were sending an invoice to the government for payment. We would receive perhaps a half of what our request was. We had no money. We were running short on money. That was the biggest reason why we did not finish.
>
> . . . [W]e had a listing of purchase orders that we did not buy.

(Tr. 674) In addition, CHHI considered the impact of the outstanding technical items on its performance: unavailability of the second recompression chamber to fabricate the piping, lack of electrical distribution for the compressor room, lack of grounding for the recompression chambers, and issues involving the location of the ET water holding tank. CHHI did not receive notice or direction from the government that the first recompression chamber that had not been fully tested was acceptable to relocate to the FAT. CHHI could not install the piping in the FAT building without the recompression chamber in place.

CHHI expected these items to be resolved for the installation to be certified and complete and usable as provided by the contract or for a contract modification for acceptance of the work. (Tr. 677-80, 690, 710, 712-13, 1929-30)

130. CHHI has alleged that the government caused a delay of 284 days in its contract performance from the original contract completion date of 29 January 1995 to the default termination (R4, tab 563, att. 2, task 17-1; tr. 1369). When the contract was terminated for default, approximately 90 percent of the contract work was completed, and work in the FAT building and punch list items on Contract 4025 were outstanding. Mr. Herblot estimated that the cost of finishing the contract was $75,000. The estimated cost to complete was $85,278 as ten percent of the contract price. (Tr. 220, 339, 675, 705, 707, 965, 1418)

131. Evidence of CHHI defective or noncompliant work is limited to nonconformance reports 0001 through 0009 some of which were corrected by CHHI. The government never questioned the very good quality of CHHI's work. (R4, tabs 406, 427, 434; tr. 217-18, 235, 1906)

132. On 28 November 1995, Ms. Pearson notified CHHI's surety that Contract 4025 had been terminated for default and it was liable for damages under its performance bond. The government's letter requested the submission of proposals in accordance with FAR 49.404 for the government's consideration (R4, tab 350; tr. 400). On 4 December 1995, Ms. Dearing forwarded information to the surety on the funding left on the contract (R4, tab 357; tr. 401). On 4 December 1995, the surety contacted CHHI about beginning its investigation into the claim against the bond and reminded CHHI of its agreement to indemnify the surety against any loss, costs, and expenses including attorney fees incurred as a result of execution of the bond. On or about 5 December 1995, the surety proposed in a telephone conversation that CHHI undertake completion of the contract with the surety's financial backing, contract management, responsibility for quality assurance, and stipulation that any claims would be resolved after completion of the contract. Mr. DeAngelis considered that "quality assurance" would be jeopardized by CHHI doing the work, but it was agreed that the proposal would be discussed with the contracting officer (R4, tab 360; tr. 403). The government decided it would not consider allowing CHHI to complete the balance of the work due to concerns about quality assurance, and the surety so informed CHHI. We find this was not a concern about the quality of CHHI's work, but reference to the hostile atmosphere that Mr. Walter Malyszek had created between CHHI and the government. (R4, tabs 358, 359, 362, 363; tr. 463-66) By letter dated 6 December 1995, the surety requested a meeting with the contracting officer to review documents needed for its investigation of the claim and listed the documents needed in a subsequent letter (R4, tabs 359, 361; tr. 402). CHHI filed a protest with the U.S. General Accounting Office (GAO) because they were not solicited for the completion contract. On 14 May 1996, GAO dismissed the protest on the grounds that the surety, not the government was conducting the procurement. (R4, tabs 448, 451; tr. 303)

133. CHHI's surety did not pay the government as requested for completion of the contract after the default, but wanted to investigate, mitigate damages, and make its own assessment whether the default termination was valid. CHHI was not cooperative. By ICM

letter, dated 13 December 1995, ICM alleged that the surety was contributing to a breach of contract by the government. ICM refused meeting with the surety to review documents related to the project and the alleged default and to furnish copies of requested documents. On 19 December 1995, the surety identified the information needed from CHHI for its investigation, but did not receive it from CHHI due to advice from Mr. Walter Malyszek. The surety was required to request it from the government. (R4, tabs 365, 366, 368, 371, 373; tr. 391-92, 407) CHHI refused permission for the government to inventory materials purchased for the project at its offices and was notified that it was responsible for the cost of the inventory that would be included in the excess completion costs as a liability of the surety (R4, tabs 376, 381, 393; tr. 412).

134. As of 20 December 1995, a request for reprogramming funds in the amount of $550,000 was pending in the United States Senate to cover the additional amounts needed for the recompression chambers, electrical work for the compressors, and grounding systems for the chambers (R4, tab 368).

135. North American Insurance Company issued an invitation for bids, dated 16 February 1996, with the assistance of Contract Surety Consultants (CSC) for a firm, fixed-price contract with a single line item. The IFB called for proposals to be submitted to perform items listed on an Exhibit A for completion of the FAT and miscellaneous items in other parts of the facility with the understanding that materials and submittal documents were in the custody of CHHI. The IFB could not represent them as available to the completing contractor and requested alternative proposals with or without the CHHI materials. The IFB anticipated award on 22 March 1996, which was extended. Bids were received 12 April 1996. (R4, tabs 411, 413, 420, 421; tr. 426) CHHI did not initially cooperate with the surety in listing contract materials that were in its shop on the advice of Mr. Walter Malyszek who did not think CHHI should be involved with the bonding company. Since CHHI exceeded its bid price for the purchase of materials, it disputed that the government had paid for all of the materials and could claim them. (Tr. 1338, 1390-91) On 16 July 1996, CHHI turned over all its work in process inventory to the government in response to a writ of attachment served by a U.S. Marshall (R4, tab 442; tr. 1339; 1388-89). The government and the surety began negotiations of the takeover agreement on 29 April 1996, but the government did not agree to an indemnification clause that the surety required in a takeover agreement. The surety negotiated the price of completing the contract with the government, tendered two bids it received, adjusted and extended for acceptance by the government, and paid the government $282,000 in accordance with an Agreement of Release, dated 27 November 1996. (R4, tabs 46, 447, 505; tr. 392, 395, 436, 1389, 1912)

136. On 6 January 1997, the government awarded Contract No. N47403-97-C-0204 (the completion contract) to Tecnico Corporation of Chesapeake, Virginia in the amount of $222,894 with a contract completion date of 16 June 1997. The government did not solicit CHHI for award. Tecnico received information in the bid package from CSC that included the CHHI contract, but did not review the contract specifications in bidding and could not confirm that its contract was exactly the same as the CHHI contract. The contract was for the

completion of CHHI's defaulted contract, and the terms and conditions of that contract "remain unchanged" with the exception of applicable wage determinations, but the work was expressly limited to the FAT building and specified items in other buildings that were listed in an Exhibit A. Exhibit A as revised in the completion contract does not list relocation or testing of the recompression chambers as part of the scope of work. (R4, tab 520; tr. 437-38, 1913-15, 1920, 1923)

137. Tecnico was granted extensions of time for completion of its contract until 22 August 1997. Under the completion contract the recompression chamber was not installed in the FAT building or tested. The hyperbarics system in the FAT was tested using flow meters to simulate the flow which the government found was sufficient to meet the requirements for beneficial occupancy. On 30 September 1997, the government accepted the supplies under the completion contract. (R4, tabs 522, 523, 529, 531; tr. 1574-75)

138. On 9 January 1997, CHHI's surety filed suit against CHHI to recover the $282,000 paid to the government for completion of Contract 4025 plus its investigative costs and expenses and attorney fees in a total amount of $373,033. On 14 October 1997, the matter was settled by agreement of CHHI to pay its surety $400,000. Judgment was entered in favor of the surety against CHHI in the amount of $400,000, plus interest on 31 July 1998. (R4, tabs 541, 543, exs. 4 and 5)

139. On or about 2 March 1998, CHHI filed a voluntary petition for bankruptcy (status report, dated 31 Dec. 1998).

140. On 17 November 1999, a federal grand jury returned an indictment of progress payment fraud under Contract 4025 (gov't mot. to stay proceedings, dated 23 Nov. 1999). On 24 May 2000, Mr. Herblot was acquitted of the charges filed against him (Board Order, dated 9 June 2000).

Claims and Appeals

141. On 13 December 1995, appellant filed an objection to the Board's grant of an extension of time for the contracting officer to issue a final decision on CHHI's claims. The Board accepted CHHI's letter as a notice of appeal and docketed the matter as ASBCA No. 49375. On 19 December 1995, the Board dismissed the petition filed in ASBCA 49245 as moot.

142. On 21 December 1995, appellant filed a notice of appeal of the contracting officer's final decision, dated 9 November 1995, that terminated Contract No. 4025 for default which the Board docketed as ASBCA No. 49401.

143. On 29 December 1995, Ms. Winterstein issued the contracting officer's final decision denying appellant's REAs in their entirety and including five government claims in the amount of $96,000 (R4, tab 378; tr. 295). The government has listed the claims as follows:

1. Trench Pipe Work
2. Reduction in the Thickness of the Escape Trunk
3. Relocation of the Escape Trunk Water Holding Tank
4. Elimination of the Acid Passivation Requirement
5. Reduction in Engineering Efforts to Design the Escape Trunk

(Gov't br. at 137)

144. On 1 February 1996, CHHI filed its complaint in ASBCA No. 49375. CHHI alleged that the termination for default was unjustified and claimed an equitable adjustment in the amount of $452,819 for changes, delay, remission of liquidated damages, and impact. The contracting officer's final decision, dated 29 December 1995, is within the scope of this appeal (R4, tab 378; compl. ¶¶ 87, 89.b.). This decision denied CHHI's REA, dated 5 May 1995, under Contract 4025 (finding 78, *supra;* R4, tab 206) and REA, dated 10 May 1995, under Contract 4036 (finding 78, *supra;* R4, tab 211) that were deemed claims (finding 87, *supra*) and included government claims in the amount of $96,000, which were appealed. In its complaint CHHI disputed the government's assessment of liquidated damages in the amount of $42,225 under Contract No. 4025 and its withholding of retainage in the amount of $85,228 under Contract No. 4025 and the amount of $24,249[10] under Contract No. 4036 (compl. ¶ 93.a.). CHHI claimed interest under the Prompt Payment Act for invoices submitted under Contract Nos. 4025 and 4036 that were paid beyond the 30-day required period (compl. ¶ 95).

145. On 5 June 1996, the Board docketed the government claims that were the subject of paragraph 89.b. in appellant's complaint filed in ASBCA No. 49375 as a separate appeal with the docket number ASBCA No. 49882.

146. On 30 July 1999, appellant submitted revised pricing for its claims for equitable adjustments under Contracts 4025 and 4036 to the contracting officer for decision (R4, tabs 560 to 564; tr. 725-26). On 2 August 1999, appellant supplemented the submission (R4, tab 565). CHHI stated that the claims were originally submitted 16 June 1995 (finding 87, *supra*) and the submission was a "recalculation of [its] claim for [an] equitable adjustment" (R4, tab 560 at 2). The claims were for equitable adjustments in time and contract price for defective specifications, differing site conditions, changes, and failure to deliver GFE. CHHI listed the areas of entitlement (also referred to as tasks) under Contract 4025 as follows:

1. Air Compressors
2. Pipe Trenches
3. Scuba Repair Station Valves
4. Fabrication of the Escape Trunk Trainer
5. Defective Government Specifications: Escape Trunk Trainer and Free Ascent Tower

[10] These amounts are correctly stated in finding 98, n. 9, *supra*.

6. ET Holding Tank
7. Acid Passivation of Piping
8. Free Ascent Tower Flange
9. Recompression Chamber Grounding
10. Recompression Chamber Modification
11. Escape Trunk Design
12. Escape Trunk Viewports
13. Changes in Pipe Routing
14. Additional Costs Due to Government Failure to Deliver Recompression Chamber
15. Free Ascent Tower Hatch
16. Wrongful Termination for Default
17. Impact, Ripple and Delay Costs[11]

(R4, tab 560) In claim 16, CHHI did not allege that the default termination was an abuse of discretion, but claimed increased costs that would not have been incurred but for the termination. In claim 17, it sought remission of liquidated damages and other items. CHHI listed the areas of entitlement under Contract 4036 as:

1. Defective Electrical System
2. Factory Acceptance Test

(R4, tab 564) CHHI claimed a delay of 284 days rather than 476 days (findings 78, 130, *supra*). The total repriced claim under Contract 4025 was $1,073,250 (R4, tab 563, att. 1). The total repriced claim under Contract 4036 was $89,949, including release of retainage, extended unabsorbed burden, late payment of invoices, and proposal preparation fees (R4, tab 564, vol. 2, att. 1).

147. On 11 July 2000, Ms. Rita D. Palmore, the contracting officer who replaced Ms. Pearson, issued a final decision that denied CHHI's claims in allegations 1-13 of its claim under Contract 4025, allegations 1-2 of its claim under Contract 4036, and asserted government claims under Contract 4025. The government's revised claims involved:

1. Redesign of the Pipe Trenches

[11] We have compared these areas of entitlement to the REA submitted on 5 May 1995 according to the supporting data submitted on 16 June 1995 to determine if the areas of entitlement (claims) are the same. We have found that all the claims were previously submitted in the REA under Contract 4025 except claim 16 and parts of claim 17. (R4, tabs 206, 248) Claim 17 for impact, ripple and delay costs was previously presented to the contracting officer as allegations of "[i]ndirect to direct" (R4, tab 206 at item 15) and delay and disruption (*id*. at item 16). Under Contract 4036 the repriced claims are the same as the REA submitted on 10 May 1995 (R4, tabs 211, 247).

2. Reduction in the Thickness of the Escape Trunk[12]
3. Relocation of the Escape Trunk Water Holding Tank
4. Elimination of the Acid Passivation Requirement
5. Reduction in Engineering Efforts to Design the Escape Trunk

(R4, tab 568; tr. 479) We have compared these claims of $115,802 with the claims presented on 29 December 1995 in the amount of $96,000 and find that they are the same underlying claims (R4, tabs 378, 568). The government revised the claims only to reprice the alleged deductive changes which had previously been estimated. (R4, tab 568)

148. On 11 July 2000, the contracting officer advised that allegations 14 and 15 were addressed in the final decision within allegations 8 and 10 and denied (R4, tab 569). On 25 August 2000, Ms. Palmore issued the contracting officer's final decision that denied CHHI's claims in allegations 16 and 17 under Contract 4025 and included a government claim for liquidated damages in the amount of $304,150.[13] She found that the contract was properly terminated for default for failing to perform pending the resolution of disputes without support for financial difficulties cited as excuse and for failing to make progress so as to endanger performance of the contract. (R4, tab 570; tr. 489, 519, 541)

149. On 9 October 2000, CHHI filed a timely appeal of the contracting officer's final decisions, dated 11 July 2000, and 25 August 2000, that was assigned separate docket numbers. ASBCA No. 53077 was assigned to the government's claims. ASBCA No. 53078 was assigned to the government's claim for liquidated damages. ASBCA No. 53079 was assigned to CHHI's allegations 1 through 15 under Contract 4025 and allegations 1 and 2 under Contract 4036. ASBCA No. 53080 was assigned to CHHI's allegations 16 and 17 under Contract 4025.

150. On 2 March 2001, CHHI filed an appeal of the deemed denial of its allegations 14 and 15 of its repriced claim under Contract 4025, which it stated were not considered in the contracting officer's final decision, dated 11 July 2000. This appeal was docketed ASBCA No. 53292.

151. On 20 March 2001, the government filed a Motion to Dismiss as Duplicative and/or Consolidate ASBCA Nos. 53077, 53078, 53079, 53080 and 53292. The government argued that ASBCA Nos. 53077, 53079, 53080 and 53292 were duplicative and ASBCA Nos. 53078 and 49375 should be consolidated. The government acknowledged that the government's claim for liquidated damages docketed in ASBCA No. 53078 was a new claim.

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[12] The government is no longer seeking recovery on this claim (tr. 1671).

[13] The government's claim for liquidated damages is $267,400 assessed from 28 August 1995 to 30 September 1997, the end date of the completion contract, plus the $36,750, which was withheld from Contract 4025 and claimed by appellant (ex. G-11; tr. 513).

The government considered CHHI's allegations 1 through 15 under Contract 4025 and allegations 1and 2 under Contract 4036 identical to matters within the scope of ASBCA No. 49375 and allegation 16 under Contract 4025 within the scope of ASBCA No. 49401. The government submitted that CHHI's allegation 17 under Contract 4025 was possibly a new claim. The government proposed that ASBCA Nos. 49375 and 49882 be "amended" to take into account that the parties' claimed amounts have changed.

152. On 20 April 2001, appellant filed its response to the government's motion objecting to the government's proposal and requesting that the motion be denied. Appellant requested that the more recent appeals remain docketed because appellant had filed 17 factually separate and distinct repriced claims that were treated as separate and distinct claims by the contracting officer. Appellant proposed amending the original appeals and treating ASBCA Nos. 53077, 53078, 53079, 53080 and 53292 as the amended complaints or appeals.

153. On 3 May 2001, the Board issued an Order deferring its decision on the motion to dismiss appeals as duplicative until after the full evidentiary hearing with respect to all the pending appeals. The Board also ordered ASBCA Nos. 53077, 53078, 53079, 53080 and 53292 consolidated with the previously consolidated ASBCA Nos. 49375, 49401 and 49882 for purposes of further processing of the appeals and hearing.

PRELIMINARY MATTER

We have determined which of the consolidated subject appeals are required to be considered in this decision. CHHI's appeal of the termination for default of Contract 4025 is the subject of ASBCA No. 49401. CHHI claims which are the subject of ASBCA Nos. 53079 and 53292 are the same underlying claims that are the subject of ASBCA 49375. CHHI's appeal of the government's claim for liquidated damages is the subject of ASBCA No. 53078. CHHI claims 16 and 17 are for the most part new claims and will be decided in ASBCA No. 53080. The government claims which are the subject of ASBCA No. 53077 are the same underlying claims that are the subject of ASBCA No. 49882. ASBCA Nos. 53077, 53079, and 53292 can be dismissed as duplicative. Accordingly, the government's motion to dismiss and consolidate the appeals is granted in part and otherwise denied.

DISCUSSION

ASBCA No. 49401 - Termination for Default

The government maintains that the termination of CHHI's Contract 4025 was justified by CHHI's refusal to continue to perform while disputes were being resolved, CHHI's failure to adequately respond to the cure notice, CHHI's abandonment of the contract, and CHHI's failure to make progress towards completing the contract. Appellant argues that the termination was wrongful because the government reestablished a contract completion date that was unreasonable, the remaining work was impossible to perform, the government breached the contract by failing to remit the withheld liquidated damages, it

responded to the cure notice, it did not abandon performance, and the termination was an abuse of discretion by the contracting officer.

A termination for default is a drastic sanction, and the government is held strictly accountable for its enforcement of that contractual right. *Lisbon Contractors, Inc. v. United States,* 828 F.2d 759, 765 (Fed. Cir. 1987); *Connectec, Inc.,* ASBCA No. 51579, 02-2 BCA ¶ 32,021. The government has the burden of proving that its default termination was justified. Once the government has made a prima facie case justifying the default termination, the contractor must prove that its failure to perform was excusable. *Nagy Enterprises,* ASBCA No. 48815 *et al.*, 98-1 BCA ¶ 29,695 at 147,204.

The contractor's failure to respond adequately to the government's reasonable request for assurances of timely performance amounts to a breach of the contract justifying termination for default. *Danzig v. AEC,* 224 F.3d 1333, 1339-40 (Fed. Cir. 2000), *cert. denied,* 532 U.S. 995 (2001). As we stated in *Thomas & Sons, Inc.,* ASBCA No. 51874, 01-1 BCA ¶ 31,166 at 153,946-47:

> When the government justifiably issues a cure notice, the contractor has an obligation to take steps to demonstrate or give assurances that progress is being made toward a timely completion of the contract, or to explain that the reasons for any prospective delay in completion of the contract are not the responsibility of the contractor.

CHHI's response to the cure notice did not give assurances of continuing performance, but stated that it was not taking any further action on the contract because it had requested that the ASBCA order the issuance of a contracting officer's final decision on its REAs (finding 126). The contract's Disputes clause required CHHI to proceed diligently with performance pending final resolution of any dispute and to comply with decisions of the contracting officer. CHHI could not, therefore, abandon performance because the contracting officer failed to negotiate REAs, issue a final decision on its claims, or modify the contract to include the cost of changed work. Nor could it condition resuming contract performance on the Board rendering a requested decision. *See Howell Tool and Fabricating, Inc.,* ASBCA No. 47939, 96-1 BCA ¶ 28,225 at 140,941; *Brenner Metal Products Corp.,* ASBCA No. 25294, 82-1 BCA ¶ 15,462 at 76,619.

Failure to proceed has been equated with an anticipatory repudiation. Once the government proves an anticipatory repudiation, it has a summary right to terminate the contract for default and the burden falls on the contractor to prove that its abandonment was excusable within the meaning of the Default clause or was caused by a material breach of the contract. *See Dae Shin Enterprises, Inc. d/b/a Dayron,* ASBCA No. 50533, 03-1 BCA ¶ 32,096 at 158,649; *Freedom, NY, Inc.,* ASBCA No. 35671, 96-2 BCA ¶ 28,328; *Apex International Management Services, Inc.,* ASBCA No. 38087 *et al*., 94-2 BCA ¶ 26,842, *aff'd on reconsid.,* 94-2 BCA ¶ 26,852; *F&D Construction Co., Inc.,* ASBCA No. 41441 *et*

al., 91-2 BCA ¶ 23,983 at 120,030; *DWS, Inc.*, ASBCA No. 33245, 87-3 BCA ¶ 19,960 at 101,049; *Brenner Metal Products Corp.*, *supra*. Whether a contractor could have the right to refuse performance for a material breach of contract depends on the seriousness of the government's breach, both the nature of the breach and the impact on the contractor's ability to perform. *Seven Sciences, Inc.*, ASBCA No. 21079, 77-2 BCA ¶ 12,730 at 61,877. We have considered CHHI's allegations of a government breach that might have excused CHHI's refusal to continue performance, but concluded that there was none.[14]

Based on Mr. DeAngelis's observations at CHHI's facility on 11 October 1995 (finding 113) and CHHI's correspondence that it was in a constructive stop work situation (findings 119, 123), the government had a reasonable basis for concern that CHHI might not be able to perform the contract on a timely basis and was justified in issuing the cure notice. *See Danzig v. AEC, supra*, at 1337. The issuance of a cure notice was justified under the circumstances even if CHHI had not in fact stopped work, as we have found (findings 111, 113). CHHI did not explain that the reasons for its delayed performance were not its responsibility. Its demand for "definitization" of the contract appears as little more than a performance precondition that the contracting officer provide it with financial relief. CHHI did not object to the alleged unreasonableness of the reestablished contract completion date. The fabrication in its shop of the remaining piping for the FAT and installation of that piping and performance of the punch list items on site were not impossible to perform. CHHI was contractually obligated to proceed with this work and did not adequately explain why it could not.

The government was aware during this time that the condition of the recompression chambers made CHHI's completion of the contract work impossible. The no-cost field change did not resolve the government's inability to deliver the GFE recompression chambers that could be functionally tested and certified for use in the completed training facility. The testing of the recompression chamber in the Aid Station building could not be completed, and it was then impracticable to remove the same chamber from the Aid Station building and relocate it to the top of the FAT building for connection, operation and functional testing there. The government did not modify the contract to reflect this reality. The fact that CHHI wanted and needed clarification of contract terms and direction from the contracting officer about relocation of the recompression chamber to the FAT and a protective structure for the outside placement of the ET holding tank was not, however, responsible for CHHI's failure to perform. The failure of the government to furnish the recompression chambers required for completion of the contract did not prevent CHHI from doing other contract work. As for the installation of the ET holding tank, the government was entitled to obtain precisely what was specified in the contract, or otherwise directed, and the contractor was not entitled to substitute its own views for those of the government.

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[14] There is a question whether the alternate Disputes clause which appears in CHHI's contract, FAR 52.233-1, DISPUTES ALTERNATE I (DEC 1991), allows for a contractor's failure to perform to be excused by the government's material breach. *Malone v. United States*, 857 F.2d 787 (Fed. Cir. 1988); Cibinic, John, Jr. & Ralph C. Nash, Jr., ADMINISTRATION OF GOVERNMENT CONTRACTS 947 (3d ed. 1995).

Financial difficulties also do not generally excuse a contractor's default. *See Danzig v. AEC, supra,* at 1339. The failure of the contracting officer to release withheld funds upon substantial completion of portions of the contract or reestablishment of the contract completion date did not constitute unreasonable or excessive withholding that could excuse CHHI's failure to make progress and give assurances of continued performance. *See Copeland v. Veneman,* 350 F.3d 1230, 1234 (Fed. Cir. 2003); *Johnson v. All-State Const., Inc.,* 329 F.3d 848, 854 (Fed. Cir. 2003).

Although CHHI may have technically been in default without excuse, the contracting officer could not abuse her discretion in determining that the contract should be terminated. A termination that is unrelated to contract performance is arbitrary and capricious, and thus an abuse of the contracting officer's discretion that will be held improper. *McDonnell Douglas Corp. v. United States,* 182 F.3d 1319 (Fed. Cir. 1999), *cert. denied,* 529 U.S. 1097 (2000). We recently stated the governing principles in *Ryan Company,* ASBCA No. 48151, 00-2 BCA ¶ 31,094, *aff'd on reconsid.,* 01-1 BCA ¶ 31,151, as follows:

> The law is now settled that it is sufficient for the Board to set aside a contracting officer's decision to terminate a contract for default on the grounds that the decision was "arbitrary or capricious, or that it represents an abuse of his discretion." The Courts have said that where there is no nexus between the decision to terminate for default and contract performance, the termination for default may be arbitrary and capricious and set aside in favor of a termination for convenience. Because the default clause does not require the Government to terminate on a finding of a bare default but merely gives the agency the discretion to do so, we give specific consideration to the TCO's decision to ascertain if it represented her informed judgment as to the merits of the case.

00-2 BCA at 153,543 (citations omitted). It is also well-settled that a reasonable and proper exercise of discretion must not be tainted by impermissible motive. *ABS Baumaschinenvertrieb GmbH,* ASBCA No. 48207, 00-2 BCA ¶ 31,090 at 153,518. It is thus appropriate for us to examine the motives and judgment of the contracting officer leading to the decision to terminate CHHI's contract.

Appellant argues that there is no nexus between the decision to terminate and CHHI's performance on the contract because the government wanted to get rid of CHHI when it did not like working with Mr. Walter Malyszek, the contract manager CHHI retained before submitting its REAs in May 1995. A hostile relationship developed between CHHI and the government, and Mr. DeAngelis plainly did not like dealing with Mr. Malyszek (finding 85). Appellant maintains that the government used CHHI as "a scapegoat" for all the problems on the contract (app. br. at 48). The possibility of termination arose on 25

September 1995 because of an apparent lack of progress on the contract (finding 105). On 10 October 1995, Mr. DeAngelis notified the contracting officer that he wanted to terminate the contract. CHHI had performed high quality work, but he objected specifically to the uncooperative attitude expressed in CHHI's letters. He made a visit to CHHI's facility to evaluate the status of the in-house work, requested the contractor's proposed schedule for completion, and prepared his own independent schedule for the contractor's work. At this time the government did not respond to CHHI's repeated letters explaining the causes of delay and its need for further direction. Mr. DeAngelis proceeded to initiate deductive changes to reduce the contract price. The government did not advise CHHI that it did not expect any further work to be performed with respect to the recompression chambers. This lack of cooperation in the administration of the contract did not amount to a material breach of contract that impacted CHHI's ability to continue other work on the contract.

The government chose to proceed to reestablish the contract completion date by Modification No. P00007 which directed CHHI to perform and then issue a cure notice. We conclude that the contracting officer's decision to terminate the contract was an informed judgment based on reasons related to CHHI's contract performance. The action was not solely based on a desire to be rid of the contractor and its representative. It was not arbitrary or capricious and did not amount to an abuse of discretion. The appeal from the termination for default is denied.

ASBCA No. 49375 - CHHI Claims

Contract 4025

1. Air Compressors

CHHI claims that the unavailability of the GFE air compressors as well as problems encountered on Contract 4036, which are the subject of separate claims, had an impact on its ability to perform Contract 4025 causing additional out of scope work, disruption to its planned sequence of work, and unspecified delay (app. br. at 55). CHHI maintains that the government requested that it provide pricing information for new compressors to replace the GFE compressors before it decided that the work was beyond the scope of the contract and issued a solicitation for proposals (app. br. at 53). The government argues with respect to the increased costs claimed that CHHI is not entitled to recovery of the costs of preparing a proposal for a change that is not adopted. The government further argues that there is no evidence in support of a delay claim.

The expense of preparing a cost estimate in response to a government request for a change proposal is normally not compensable. *See Mac-Well Company,* ASBCA No. 23097, 79-2 BCA ¶ 13,895 at 68,223; *Greenhut Construction Company, Inc.*, ASBCA No. 14354, 70-1 BCA ¶ 8209. Where the government knows or should have known that a proposed change was beyond the scope of the contract, however, but requests that the

contractor prepare a cost proposal for a contract modification, the contractor's proposal preparation efforts are extra work that is compensable under the Changes clause. *Mac-Well Company, supra.* In *Acme Missiles & Construction Corporation*, ASBCA No. 11786, 69-2 BCA ¶ 8057, a contractor was held entitled to recover the added costs of preparing a requested cost estimate for proposed modifications to a defective GFE generator. The government made the modifications after finding the contractor's estimate excessive and rejecting it. The Board stated:

> Generally, a request to a contractor for an estimate for proposed changes is not considered to be extra work and the costs for preparing such estimates are usually considered as part of the overhead included in the total contract price. Where, however, the Government requests a contractor to submit an estimate to correct a Government error and for the Government's benefit, such a request is extra work and is compensable under the Changes clause.

69-2 BCA at 37,455. *Accord Kirk Brothers Mechanical Contractors, Inc.*, ASBCA No. 35771R *et al*., 92-3 BCA ¶ 25,144, *aff'd in part and rev'd in part on other grounds*, 16 F.3d 1173 (Fed. Cir. 1994).

The government requested the cost estimates for its benefit in deciding what equipment to install. This request was sufficient to impose the obligation on the contractor. Mr. Herblot made clear that CHHI would not have undertaken the effort to obtain the pricing unless it had felt compelled to do so. The government requested the cost estimates planning to modify Contract 4025 to substitute for its failure to deliver GFE when it should have known that the change was beyond the scope of the contract. CHHI solicited quotations from suppliers and performed technical research to address the different options that the government was considering (finding 18). Under these circumstances the costs of obtaining technical and pricing information from award of the contract through 18 March 1994 are compensable.

The delay in receipt of the air compressors due to unavailability of GFE impacted CHHI's performance of Contract 4025, but CHHI has not met its burden of proving the period of time affected, the costs attributable to the delay, or disruption that required rescheduling. Appellant is not entitled to recover delay or disruption costs.

2. Pipe Trenches

Appellant claims that the government's design of the trenches was defective causing it to incur increased costs for additional research and design work, additional labor, and delay. Appellant also asserts its entitlement on the grounds of differing site conditions. Appellant has presented the claim of its subcontractor Keevan for increased costs of cutting and replacing sidewalks and paved areas and re-planting grass attributable to differing site

conditions. The government argues that the work performed was contemplated under Contract 4025 or has been compensated under Modification No. P00003 to the contract. The government disputes that appellant was delayed by the changes made to the pipe trenches.

When the government provides a contractor with design specifications, such that the contractor is bound by contract to build according to the specifications, the contract carries an implied warranty that the specifications are free from design defects. *United States v. Spearin*, 248 U.S. 132 at 166, 169 (1918); *White v. Edsall Construction Company, Inc.*, 296 F.3d 1081 (Fed. Cir. 2002); *McElroy Machine & Manufacturing Company, Inc.*, ASBCA No. 46477, 99-1 BCA ¶ 30,185. To recover under the implied warranty relating to a government specification, a contractor must have reasonably relied upon the defective specifications and complied with them. *Al Johnson Construction Company v. United States*, 854 F.2d 467 (Fed. Cir. 1988). The contractor has the burden of proving that the specifications are defective. *J.C. Equipment Corporation*, ASBCA No. 42879, 97-2 BCA ¶ 29,197.

The specifications for the trenches did not account for underground utilities which provided obstructions to digging to the dimensions specified and were thus defective (finding 22). CHHI performed research and design work to lay out the new trenches, which was not required by the contract nor contemplated as part of the scope of work and is compensable. Modification No. P00003 compensated CHHI for one extra trip to the site which was Mr. Burt's travel in May when work was prevented (finding 25). When the trench details were reviewed at the on-site meeting in March 1994, it was understood that both the government and the contractor would have a representative on site during the trench digging (finding 22). Mr. Burt's travel in June when the work was performed was not additional work beyond the scope of the contract.

A differing site condition is either a subsurface or latent physical condition at the site that differs materially from those indicated in the contract or an unknown physical condition at the site, of an unusual nature, which differs materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract. *See G&P Construction Company, Inc.*, ASBCA No. 49524, 98-1 BCA ¶ 29,457 at 146,226-27. Appellant has failed to establish that the building contractor's completion of paving and landscaping before it could dig the trenches constituted physical conditions at the site that it could not anticipate from the terms of the contract at the time of bidding. The contract indicated the location of roads in the area of the four buildings and set forth a different type of trench construction for paved and non-paved areas. The description of the existing conditions in the contract stated that completion of the buildings was anticipated for July 1994, but could be completed as early as May 1994. CHHI's claim for a differing site condition is without merit.

However, CHHI scheduled its trenching work so that it would be done before the site conditions observed at the time of bidding changed, and the government prevented it from

proceeding with its work in May. The government allowed the building contractor to complete its work with the result that areas were paved and landscaped when the trenching was performed in June. The government compensated CHHI for changes it made in the trenches, but did not provide for the increased difficulty of performing the work. We conclude that the government's action constituted a constructive change for which appellant is entitled to compensation on behalf of its subcontractor for the increased costs incurred. *See Yarno and Associates,* ASBCA No. 10257, 67-1 BCA ¶ 6312 (held a constructive change when the contractor was denied access to perform its work while another on-site contractor damaged the topsoil causing the contractor to incur costs to obtain replacement topsoil).

3. Scuba Repair Station Valves

Appellant claims defective specifications and that the government without justification directed it to replace the scuba repair station valves causing additional work for reinstallation of the valves and delay. The government claims it had the right to enforce the specifications in the contract and require replacement of non-conforming valves.

A proposal for a change in a contract must be submitted in a sufficiently clear and formal way to put the other party on notice concerning it. *R. P. Richards, Inc.,* ASBCA 52465, 01-2 BCA ¶ 31,548; *Vogt Brothers Manufacturing Co. v. United States,* 160 Ct. Cl. 687, 714 (1963). CHHI proposed and installed valves known as Whitey valves, which are other than the needle valves called for in the specifications in the scuba repair station, which was only one part of the hyperbaric system (findings 8, 63). The specifications required standard products to lessen the costs of operation and maintenance. We have found that the scuba repair station valves and the valves in the rest of the system were products of a similar type. The Whitey valves, although they may have been of superior quality, did not meet the specifications because they were of a different manufacture for only part of the system. CHHI asserts that it submitted manufacturer's data for the Whitey valves without receiving any response from the government and then included the valves in its drawing package. CHHI has not shown how or whether it separately described the proposed change. The COTR was not aware of CHHI's substitution of valves until they had been installed and never indicated approval of the Whitey valves as acceptable for the scuba repair station.

The government is generally entitled to insist upon strict compliance with the contract specifications and to require correction of nonconforming work. *Cascade Pacific International v. United States,* 773 F.2d 287, 291 (Fed. Cir. 1985); *A.D. Roe Company, Inc.,* ASBCA No. 48782, 99-2 BCA ¶ 30,398. Thus the government is not obligated to accept non-conforming items, even if the items are equivalent or superior to that which is specified. *C&D Construction, Inc.,* ASBCA Nos. 48590, 49033, 97-2 BCA ¶ 29,283. There was no acceptance of CHHI's proposal that could have waived strict compliance with the specifications. The government had the right to require that the Whitey valves be removed and replaced with valves of the same manufacture as those used in other parts of the system.

After they were replaced CHHI was entitled to payment of the $5,000 retained for noncompliance (finding 77). It was not unreasonable or economically wasteful for the government to require replacement considering the impact on the cost and ease of maintenance when valves throughout the system were standardized. *See Triple M Contractors, Inc.*, ASBCA No. 42945, 94-3 BCA ¶ 27,003; *cf. Toombs & Co., Inc.*, ASBCA No. 34590 *et al.*, 91-1 BCA ¶ 23,403 at 117,432-33. Appellant is entitled to recovery of the amount withheld, but this claim is otherwise denied.

4. Fabrication of the Escape Trunk Trainer

Appellant alleges that the government's direction to fabricate the ET trainer with a 1/2" hull thickness instead of the 3/8" hull thickness that met the contract specification requirements was a constructive change that caused it to incur additional costs for research and development and labor and delayed its performance. The government argues that the 3/8" hull thickness was not acceptable to the government because manufacturing drawings on which CHHI relied in submitting its preliminary design package showed 1/2" hull thickness (gov't br. at 244). The government maintains that no additional costs were incurred for the design, administrative costs were included in CHHI's contract price, and increased material costs were not substantiated. The government submits that this issue did not delay CHHI's performance.

The contract required that the ET meet the code requirements of the ASME. CHHI's 3/8" thickness of the hull was sufficient to withstand pressures as verified by ASME. The government's position that CHHI was bound to comply with its preliminary design as a contractual obligation is without merit. The government's argument that CHHI could not deviate from the manufacturing drawings that showed the 1/2" thickness is erroneous. We have found that they used a 3/8" thickness in compliance with the ASME (finding 31). The government's direction to fabricate to a greater thickness of 1/2" was a change which caused CHHI and its subcontractor to incur additional costs for redesign and material. To the extent CHHI has presented substantiation of its increased costs incurred, it is entitled to compensation for the constructive change.

5. Defective Government Specifications: Escape Trunk Trainer and Free Ascent Tower

Appellant alleges that specifications for the location of light penetrators, an overpressure relief mechanism, and an underwater magnetic switch in connection with the ET and FAT were defective causing it to incur increased costs for research and development. The government argues that the location of the lights and switch were at the discretion of the contractor. The government submits that this work was required by the contract, and the contractor is not entitled to an increase in price. Since a deviation was approved for deletion of the relief mechanism, this item had no impact on CHHI, according to the government.

Appellant has not shown that the specifications for the location of the light penetrators were ambiguous or defective. Appellant has pointed to defects in the use of a relief valve where it was not appropriate and the requirement for an underwater magnetic switch. The government acknowledged the problems CHHI presented and offered a reasonable resolution within approximately ten days (finding 36). These specifications, to the extent they were defective, did not cause CHHI harm. The government deleted the relief valve from the contract requirements and allowed CHHI to substitute another mechanism for the magnetic switch. We are not persuaded that CHHI suffered any harm or incurred any resulting labor costs that were additional to the contract work as a result of these defects. This claim is without merit.

6. ET Holding Tank

Appellant alleges that the plans and specifications for the location of the ET holding tank were defective with the result that it incurred additional labor costs to find the proper location and was delayed in its contract performance. The government argues that CHHI was responsible for the selection of the tank and layout of the FAT building and suffered no damage from the changes in location that were made.

Appellant was responsible for the design of the ET holding tank and its placement in the room specified in the contract plans and specifications. CHHI has not met its burden of proof that the equipment designated for the room in the FAT building where the ET holding tank was to be installed made it impossible for CHHI to create a layout that would accommodate a tank (finding 37). Holding tanks other than the standard tank CHHI proposed could have been provided. The government cooperated with CHHI in changing the location to more accommodating space and advised CHHI accordingly. CHHI was not ready to install the tank before receiving the government's response on 1 May 1995 to its request for a new location and did not suffer delay (finding 74).

7. Acid Passivation of Piping

CHHI claims that the government failed to address its concerns about the acid passivation requirement in a timely manner causing it to incur additional research and associated work to fix the problem and delayed its performance. The government argues that research concerning the requirement was within the scope of the contract and CHHI was under a duty to inquire about any ambiguity in the specifications before bidding, but failed to do so. Since CHHI was not ready to perform the acid passivation before receiving information from the government that the requirement was deleted and did not need to delay its on-site visit, the government submits that CHHI was not delayed.

The government has a contractual duty to cooperate with its contractors and not hinder their performance. This duty involves the specific obligation to clarify specifications after valid requests from contractors. *Turbine Aviation*, ASBCA No. 51323, 98-2 BCA ¶ 29,945, and cases cited therein. The contract does not specify the time the government is allowed to review a contractor's requests, and the government is thus entitled to a reasonable time. *Essex*

Electro Engineers, Inc. v. Danzig, 224 F.3d 1283, 1291 (Fed. Cir. 2000). CHHI considered a reasonable time for the government's answer was two weeks while the government's position was that a reasonable time would vary with the nature of the request and the degree of approval required (finding 60). *See Astro Pak Corporation,* ASBCA No. 49790, 97-1 BCA ¶ 28,657 at 143,148-49; *Azerind, Inc.*, ASBCA No. 34294 *et al.*, 87-3 BCA ¶ 20,122 at 101,885. CHHI made its request for clarification on 21 October 1994, but did not receive the government's response until 7 March 1995, which we consider unreasonable delay (findings 43, 60). The government is responsible for the additional time taken to delete the acid passivation requirement. Appellant has alleged that the requirement was "a problem," but has not alleged or proven in support of this claim that the specifications for acid passivation were defective (app. br. at 62-63).

We have not found, however, that the government's failure to cooperate in providing a prompt response to CHHI's request for direction about acid passivation caused CHHI harm. There is no credible evidence of CHHI research allegedly performed to resolve the problem. The work CHHI did that raised its concerns about the specification of acid passivation for the exterior piping was within a bidder's responsibility to investigate. We are not persuaded by CHHI that the government's delayed response to its request for direction caused rescheduling, work out of sequence, or delay. The impact on the CHHI schedule was the result of the decision Mr. Herblot made in an exercise of business judgment to delay its scheduled site visit (finding 60). It was not caused by the delayed deletion of the contract requirement. In addition, CHHI has not alleged, and we have not found the period of time that CHHI was delayed due to the government's failure to cooperate. Appellant is not entitled to recovery on this claim.

8. Free Ascent Tower Flange

CHHI claims that the government's defective flange on the FAT, which was provided by the building contractor, caused it to incur additional labor costs to fix the problem and delayed its performance. The government argues that CHHI has not shown that it was damaged by anything related to the warped flange. The government submits that it did not direct CHHI to pursue corrections to any deficiencies and did not deny access to the FAT for installation of the ET or delay CHHI's schedule.

CHHI performed additional work while the warped flange was a potential problem from the time it was noticed on 29 November 1994 until the issue was resolved by the government's directive on 30 January 1995 (findings 45, 46). The installation of the ET, which was apparently successful on 19 July 1995, was more difficult than CHHI planned, but CHHI has not claimed or quantified any additional labor costs (finding 91). To the extent CHHI has presented substantiation of its increased costs incurred before installation, it is entitled to compensation for the differing site condition.

9. Recompression Chamber Grounding

Appellant alleges that the failure of the government to have ground straps installed in the buildings for the recompression chambers required it to perform additional work to provide cost estimates for the installation and meet with the government to discuss its proposal. Appellant claims, but has not specified, delays experienced as a result of this grounding problem. The government argues that it did not direct or advise CHHI to pursue corrections and questions the quality of CHHI's proposal and time spent for resolving the problem. The government also asserts that CHHI is not entitled to costs for unaccepted cost proposals.

We have found that the government requested CHHI to submit an estimate for the grounding which had not been provided by the building contractor (finding 48). CHHI spent some time and effort on the preparation and discussion of a proposal. The government did not obtain the funding required to modify CHHI's contract and did not accept CHHI's proposal. As we have discussed above, the expense of what CHHI prepared and discussed with the ROICC office is compensable in these circumstances. *Acme Missiles & Construction Corporation, supra.*

10. Recompression Chamber Modification

Appellant alleges that the government held up its work on the recompression chambers pending resolution of the certification issue. Its claim is for preparation of cost estimates for radiographic examination of the chambers and additional work on one recompression chamber that was not covered by Modification No. P00003, namely, repair to the console and operator station. CHHI also claims other costs as a result of defective specifications, rescheduling its work after receipt of the reprogramming information, and storage costs before it delivered the recompression chamber to the job site. The government maintains that appellant has failed to support its claim for additional work not covered by the modification and submits that the government's directive with regard to the recompression chambers had no adverse impact on CHHI.

Providing cost estimates for radiographic examination of the welds on the recompression chambers was at government request (finding 47) and is compensable, as discussed above. To recover under a constructive change theory, the contractor must show that the alleged additional work was performed pursuant to government direction or as a result of government fault. *NavCom Defense Electronics, Inc.,* ASBCA No. 50767 *et al.,* 01-2 BCA ¶ 31,546, *aff'd in part and rev'd in part on other grounds,* 53 Fed. Appx. 897 (Fed. Cir. 2002). A contractor who acts as a volunteer cannot be paid for extra work which is furnished on its own initiative. *Metric Constructors, Inc.,* ASBCA No. 46279, 94-1 BCA ¶ 26,532, *motion for recon. denied,* 94-2 BCA ¶ 26,827 and cases cited therein. Appellant has presented no credible evidence that the government directed it to perform the additional repairs CHHI discovered were needed after it began the changed work that was covered by

Modification No. P00003. To the extent CHHI accomplished additional work, it was volunteered and is not compensable.

The government told CHHI that it was reprogramming funds for necessary repairs to the recompression chambers and thus indicated that CHHI would have additional work on the recompression chamber at its facility. CHHI was planning to deliver and install the recompression chamber in early June (finding 65) and did not delay or reschedule its work as a result of the government's advice about potential additional work (finding 54). CHHI's claims for unspecified work due to defective specifications, a rescheduling effort, and storage costs are without merit. Appellant is entitled to recover proposal costs. The claim is otherwise denied.

11. Escape Trunk Design

Appellant argues that it incurred additional labor for engineering, design and administration and suffered manufacturing delays as a result of defective drawings for the ET. The government maintains that the contractor was responsible for verifying the drawings and specifications and argues that CHHI has not shown how it incurred costs or that it was delayed by the government's response to CHHI's proposed substitution of a dimension for that provided by the Contract.

Appellant has established that there was an incorrect dimension on the schematic drawings in the contract for the ET (finding 56). We are not persuaded, however, that defective contract provisions and as-built drawings provided for design of the ET caused CHHI harm. CHHI was able to use the drawings and make its design calculations for manufacture of the ET. This claim is denied.

12. Escape Trunk Viewports

Appellant claims that the unavailability of certification for the acrylic viewports for the ET caused it to perform extensive research and delayed its performance. The government submits that appellant failed to prove entitlement to either time or additional costs to resolve the issue.

It is the responsibility of the contractor to investigate and select sources of supply prior to bidding and obtain assurances that the materials needed to perform the contract in accordance with the contract terms will be available. *McElroy Machine & Manufacturing Company, Inc.*, ASBCA No. 46477, 99-1 BCA ¶ 30,185. CHHI did not do so, but only determined the unavailability of acrylic viewports that could be certified after contract award. The government responded to the CHHI inquiry promptly, and CHHI has admitted there was no delay (finding 58). Appellant has failed to prove any entitlement to this claim.

13. Changes in Pipe Routing

Appellant claims additional work as a result of the changes in the routing of piping into the Aid Station building and in the installation of the Haskell pumps in the OCC building. The government acknowledges that the changes were made at government direction, but maintains that no additional work was involved.

We have found that the changes in the pipe routing at the Aid Station building did not increase CHHI's work (finding 64). The changes in the installation of the Haskell pumps in the OCC building required rework of CHHI's design for routing the associated piping with installation on the floor rather than mounting the pumps on the wall (*id*.). Appellant is entitled to compensation for increased costs of additional work resulting from the defective design for the Haskell pumps.

14. Additional Costs Due to Government Failure to Deliver Recompression Chamber

Appellant alleges that as a result of the government's failure to deliver the second recompression chamber and the reprogramming, it rescheduled its work and performed work in an out of sequence manner that was less efficient than planned and that it was delayed in its contract performance. The government maintains that CHHI could not have received the second chamber until it completed modifications on the first chamber, which it argues were not completed until July 1995. The government further argues that the agreement to an alternative to modifications to the second chamber, dated 27 July 1995 (finding 93), did not cause CHHI to incur increased costs or delay its performance.

We have found no credible evidence of increased costs resulting from the government's notice that it was reprogramming the contract and the fact that work scheduled to make modifications to the second recompression chamber would not be performed. This claim is without merit.

15. Free Ascent Tower Hatch

Appellant alleges that it was required to spend additional time resolving the problem of not being able to install the ET through the roof hatch of the FAT building, which was too small, and that it was delayed by the defective specifications and the government's erroneous direction for the installation. The government maintains that the contract gave discretion to appellant to select the method of installation of the ET and appellant did no more than follow the requirements of the contract.

Where the government changes or limits a contractor's otherwise proper method or manner of performance, the action constitutes a compensable change under the contract. *Superior Abatement Services, Inc.*, ASBCA Nos. 47116, 47117, 96-1 BCA ¶ 28,228; *Tom Shaw, Inc.*, ASBCA No. 28596 *et al.*, 95-1 BCA ¶ 27,457 at 136,786. The contract specification provided that the roof hatch would allow installation of the ET through the roof

of the FAT building, but gave the contractor a choice of methods for installation of the ET, as the government has agreed (gov't br. at 275). The government limited that choice by directing CHHI to use the method of performance referred to, but not required by the specification (finding 67). The government's direction changed the contract and caused CHHI additional work in attempting to use the roof hatch and confirming that it was too small for the ET installation. We have not found any delay from the government's failure to prepare the site by removing the benches and side railings before CHHI arrived with Keevan for the installation (finding 90). CHHI is entitled to compensation for the increased costs of attempting the installation of the ET through the roof hatch.

Contract 4036

1. Defective Electrical System

Appellant claims that it was required to prepare estimates for modifications to the defective electrical system in the Compressor building that the government decided not to use in changing the system, that its work was delayed and disrupted as a result of the defects, and that it was not adequately compensated by Modification No. P00006 to Contract 4025 for the electrical work it performed. The government maintains that cost estimates are not compensable, that CHHI was granted a time extension and no other government-responsible delay or disruption has been established, and that CHHI was fully paid for its remedial work by the contract modification.

We have found that the government directed CHHI to prepare cost estimates to upgrade the electrical system that was acknowledged to be inadequate for using the air compressors, but decided that, in the absence of needed funding, it would use a temporary electrical connection for testing the air compressor systems rather than implement CHHI's electrical design (finding 50). As we have discussed above, the expense of what CHHI prepared and its meetings with the government personnel is compensable in these circumstances. *Acme Missiles & Construction Corporation, supra.*

Appellant has not specified the delay claimed as a result of the defective electrical system. The government acknowledged delay of 67 days in its Modification No. P00003 to Contract 4036 from the time the air compressors were on site and ready to be installed to the time of CHHI's initially scheduled testing (30 March 1995 to 5 June 1995) (findings 62, 82). This extension accounted for the time taken by the government to change the defective electrical system so that functional testing could proceed. Testing was not actually conducted until 7 August 1995, because of repeated schedule changes made by CHHI (findings 68, 89, 92). We have found no basis to attribute these delays to the government.

CHHI has claimed more for the electrical remedial work it performed than allowed by the contracting officer in unilateral Modification No. P00006 to Contract 4036. The allowance made was reasonably based on Mr. DeAngelis's analysis of the costs presented, which CHHI has not refuted (findings 95, 127). CHHI is entitled to compensation for its

proposal costs, but not for delay or additional work in performing the electrical connections for the testing of the air compressor systems.

2. Factory Acceptance Test

Appellant alleges that it was delayed and incurred additional costs as a result of government changes, but has not specified in its post-hearing brief the changes that were allegedly made (app. br. at 82). Appellant alleged that the government directed CHHI's subcontractor to modify the air compressor/purifier package (49375, compl. ¶¶ 54-55), but in repricing its claims, only alleged multiple changes directed by the government without specifying the changes made (49401, compl. ¶ 54). The government argues that the functional test plan was required by the contract specifications and the government directed modifications to the air compressor package because Bauer had failed to follow the requirements in the contract. Thus the government maintains that the alleged work was not changed, but within the scope of the original contract and appellant is not entitled to recovery.

The modification of the air compressors in a different configuration than the standard compressors Bauer manufactured was made in order to comply with the terms of the contract specifications (finding 57). There was no change in the scope of work for which the government can be held responsible. Mr. Herblot agreed at the hearing that the testing performed by Bauer at the manufacturer's shop in accordance with a functional test plan and required to be witnessed by the government was in accordance with the original contract requirements (finding 53). Appellant has failed to show that the resolution of problems with either the design of the compressors or their testing constituted a direction by the government that resulted in additional work beyond the scope of the contract. This claim is denied.[15]

[15] The Board has considered the effect of the termination for default, which we have upheld, on CHHI's claim for the defective specifications, differing site conditions, changes, and failure to deliver GFE. Where a contractor seeks payment after a default, but has not delivered acceptable supplies and the government has received no benefit from the contractor's performance, a properly defaulted contractor cannot recover the expenses of either changed or unchanged work incurred prior to the termination. *See Northeastern Manufacturing and Sales*, ASBCA Nos. 35493, 35557, 89-3 BCA ¶ 22,093; *Smart Products Co.*, ASBCA No. 29008, 84-2 BCA ¶ 17,426. On the other hand, a properly defaulted contractor may recover for changed work incorporated into end items delivered to and accepted by the government. *Dennis Berlin d/b/a Spectro Sort*, ASBCA Nos. 53549, 53550, 03-1 BCA ¶ 32,075. In this instance, CHHI's work, with the exception of punch list items, was accepted in the Aid Station, OCC and Compressor buildings (finding 106), and the government has received the benefit of CHHI's performance. A contractor's claim may come within the exception to the general rule which entitles a defaulted contractor to the extra cost incurred in attempting to comply with

ASBCA No. 53080 - CHHI's Claims 16 and 17

Claim 16 - Wrongful Termination for Default

CHHI claims entitlement under Contract 4025 to compensation for additional costs that it would not have incurred but for the termination. In addition to remission of liquidated damages, which we discuss below as a separate matter, CHHI claims loss of productivity, added administrative time due to layoff, re-qualification of welders, increase in unemployment taxes, debt owed to the bonding company for the reprocurement, and attorney fees incurred in connection with the government's seizure of the contract inventory. The government has argued that since CHHI failed to show that the government incorrectly terminated the contract for default, CHHI is not entitled to any of the costs claimed.

The type of remedy available to the contractor following a default termination is either breach of contract damages for bad faith termination or a convenience termination settlement. CHHI has not submitted evidence that the government terminated its contract in bad faith. CHHI has not claimed damages for breach of contract, but submitted its claims for an equitable adjustment. Where the contractor is successful in challenging the propriety of a default termination, the Default clause provides that the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the government. FAR 52.249-8(g).

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impossible to perform specifications. *See Laka Tool and Stamping Co., Inc. v. United States*, 639 F.2d 738 (Ct. Cl. 1980), *reh'g denied*, 650 F.2d 270, 272-73, *cert. denied*, 454 U.S. 1086 (1981); *Pyrotechnic Specialties, Inc.*, ASBCA Nos. 53469, 53493, 02-1 BCA ¶ 31,668 at 156,491-92; *Peter Gross GmbH & Co. KG*, ASBCA No. 50326, 98-1 BCA ¶ 29,489; *Wholesale Tire & Supply Co., Ltd.*, ASBCA Nos. 42502, 43345, 92-2 BCA ¶ 24,960. A proper default termination will cut off recovery for claims based on requirements that the government was entitled to issue in the form of change orders, but not actions that the government had no right to take under the contract. A factor which makes a contractor's recovery just and equitable in certain circumstances is that the contractor's "efforts were wasted solely by and as a direct consequence of . . . [the government's] default on its contractual obligation to supply specifications possible of performance." *Laka Tool*, 650 F.2d at 272. CHHI's claims in ASBCA No. 49375 raise issues separate and apart from those dependent upon conversion of the termination for default to one for the convenience of the government. They are for additional efforts CHHI made as a result of government actions which, unlike the issuance of change orders, it had no right to take under the contract, *e.g.*, failing to deliver GFE, issuing specifications that were defective, impossible or impractical to perform, and not ensuring adequate performance by other contractors. The termination for default did not preclude recovery of CHHI's claims.

We have concluded that the termination for default was proper, and appellant is not, therefore, entitled to recovery of any costs resulting from the termination either for breach of contract or under the Termination for Convenience clause.

Claim 17 - Impact, Ripple and Delay

Appellant claims government delays, changes and disruptions caused increased costs of revising its schedule and extending its period of performance. The costs claimed include increased wages, Eichleay damages, additional burden, remission of liquidated damages and release of retainage,[16] REA preparation costs and fees, bonding costs, and interest for late payment of invoices. The government maintains that appellant has failed to prove the requirements for recovery and made only general allegations without providing a nexus between government-responsible acts and any increased costs. The government further argues that any delays were caused by CHHI's own doing and thus would be concurrent delays for which it is not entitled to recovery.

To recover damages for delay, CHHI must demonstrate that "(1) the specific delays were due to government responsible causes, (2) the overall completion of the project was delayed as a result, and 3) any government-caused delays were not concurrent with delays within the contractor's control." *Technical & Management Services Corporation*, ASBCA No. 39999, 93-2 BCA ¶ 25,681 at 127,753, and cases cited therein. *See also Interstate Construction, Inc.*, ASBCA No. 38745, 90-1 BCA ¶ 22,482 at 112,837-8 (although government-directed change in sequence of performing work may give rise to a compensable change, the contractor bears the burden of establishing the extent to which the project as a whole was delayed as a result of such change). CHHI has failed to prove specific schedule revisions made as a result of Government changes, when the specific alleged delays occurred, and how the overall completion of the project was delayed. CHHI has failed to meet its further burden of demonstrating that any government-caused delays were not concurrent with delays within its control. For instance, CHHI has failed to show that it was not responsible for the delays in completing in-shop fabrication work for timely on-site installation of piping (findings 60, 62, 68). CHHI has only offered unsubstantiated general allegations that it was delayed by the government. We have been unable to find the causation of the increased delay costs involving increased wages, Eichleay damages, and additional burden that CHHI has claimed.

CHHI is entitled to REA preparation costs that were paid to IMC since these were costs incurred before a CDA claim arose and were not incurred in connection with the prosecution of such a claim against the Government. *Bill Strong Enterprises, Inc. v.*

[16] These items were alleged in appellant's complaint filed in ASBCA No. 49375, but not within CHHI's original allegation 16 for delay and disruption in its REAs. Remission of liquidated damages and release of retainage are new claims. We discuss these claims below under ASBCA No. 53078 as a separate matter.

Shannon, 49 F.3d 1541, 1549 (Fed. Cir. 1995), *overruled in part on other grounds, Reflectone, Inc. v. Dalton*, 60 F.3d 1572 (Fed. Cir. 1995) (en banc)*; Grumman Aerospace Corporation (on behalf of Rohr Corporation),* ASBCA No. 50090, 01-1 BCA ¶ 31,316 at 154,674, *aff'd*, 34 Fed. Appx. 710 (Fed. Cir. 2002). The government has acknowledged this entitlement (gov't resp. to app.'s Stmt., ex. G-13 at 26).

CHHI is entitled to bonding costs at the rate of 2.5 percent on those claims under Contract 4025, which was bonded, to which it has been held entitled to recovery, as the government has acknowledged (gov't br. at 294). CHHI is not entitled to bonding costs under Contract 4036 which was not bonded.

FAR 52.232-25 in Contracts 4025 and 4036 provides that the contractor is entitled to an interest payment from the government if invoice payments are not made by the 30th day after the designated billing office has received a proper invoice from the contractor. The parties disputed whether compensation for interest payments was previously made and the date CHHI invoices were received by the billing office. Appellant is not, however entitled to interest under the Prompt Payment Act for late payment of invoices. Progress payments are not assessed an interest penalty for payment delays. FAR 52.232-25(b)(1) and (4).

ASBCA No. 49882 - Government Claims

1. Trench Pipe Work

The government claims that the redesign of the trenches required less contract work because the new plan reduced the square footage, the number, and the depth of the trenches and that it is therefore entitled to an equitable adjustment for a deductive change to reflect the cost savings to the contractor. Appellant objected to all of the government's claims because the government failed to notify CHHI in a timely manner of any of the alleged deductive changes and asserted that Mr. DeAngelis developed the claims "in retaliation" for CHHI filing its REAs (app. resp. to gov't stmt. at 1, 5). Appellant argues that there was no decrease in the amount of work because the changes in distance, width, and depth of the trenches did not vary directly with the time required for digging or the material needed for the concrete forms, gravel, and other materials.

The Changes clause in the contract provides that when a change causes a decrease in the cost of performance of part of the contract, an equitable adjustment shall be made. FAR 52.243-1(b). This provision has been held to impose a duty upon the contracting officer to make such an adjustment within a reasonable time. *American Western Corp. v. United States*, 730 F.2d 1486, 1489 (Fed. Cir. 1984); *Roberts v. United States*, 174 Ct. Cl. 940, 952, 357 F.2d 938, 946 (1966); *see Lindwall Construction Company*, ASBCA No. 23148, 79-1 BCA ¶ 13,822. The purpose of this rule is to afford the contractor an opportunity to appeal from an unreasonable or arbitrary decision while the facts supporting the claim are readily available and before the contractor's position is prejudiced by final settlement with his subcontractors, suppliers, and other creditors. *Id.* By the government's silence and

apparent acquiescence during contract performance, the contractor is led to believe that no claims for cost savings would be asserted. The failure to make an equitable adjustment within a reasonable time after savings were apparent constitutes a waiver by the government of any entitlement to the claimed savings in accord with the contract terms and the principles of fair dealing. *Roberts, supra.* Whether the government acted within a reasonable time depends, not only on the length of the delay, but also on the reasons for the delay, any intervening events affecting the contractor during the delay, whether such events were foreseeable by the government, whether the facts supporting the claim are readily available for the contractor to appeal a dispute, and whether the contractor has been prejudiced. *American Western Corp., supra,* 730 F.2d at 1489; *Norcoast-Beck Aleutian, A Joint Venture,* ASBCA No. 26389, 83-1 BCA ¶ 16,152.

Here the government knew the changes made in the trenches and was aware of the potential cost savings to CHHI in June 1994, but did not assert the claims until the contracting officer's final decision was issued to CHHI on 29 December 1995, which was after CHHI had appealed the government's failure to consider its REAs as claims to the ASBCA (findings 26, 124, 143). The approximate year and a half delay that the government neglected to consider any cost savings from changes that were made and make a demand on CHHI raises a serious question whether the government's entitlement to recovery on this claim is barred. While changes in contract requirements may entitle the government to a downward adjustment in price, we have concluded here that the redesign of the trenches did not decrease the amount of CHHI's work (finding 26).

3. Relocation of the Escape Trunk Water Holding Tank

The government claims that the relocation of the ET water holding tank was a deviation from the contract specifications that saved CHHI engineering and manufacturing costs and entitles it to a downward adjustment in contract price. The government has measured the adjustment as the cost of a water holding tank in the absence of current, reasonable cost estimates of the savings. Appellant argues that it designed a functional water tank in accordance with the layout of the building space in the contract and relocation was necessitated only as a result of defective specifications in the contract.

In September 1994, the government knew that the ET water holding tank CHHI planned for the building could not be accommodated by CHHI's design for the layout, but did not require replacement with another tank or changes in the planned layout (finding 37). The government is entitled to strict compliance with the contract specifications and appears to claim the reduced value of a standard functional water holding tank in a location other than that shown on the contract plans. The government has failed to establish, however, the decreased value or other significance to the change in location. The government is not entitled to a price adjustment.

4. Elimination of the Acid Passivation Requirement

The government claims that the deletion of the acid passivation requirement was a deviation from the contract specifications that saved CHHI the cost of passivating the exposed pipe and entitles it to an equitable adjustment in contract price. CHHI argues that the specification was defective in requiring passivation of piping that was bronze, not stainless steel, which would have corroded with the acid treatment and caused a failure of the piping under pressure (app. resp. at 7-8). CHHI further argues that the alleged cost savings were estimated without regard to the manner in which CHHI would have performed the work and are inaccurate and exaggerated.

The government considered its deletion of the requirement for acid passivation a response to a request for deviation and timely notified CHHI on 31 October 1994, when it was reviewing the requirement and again on 7 March 1995, and 5 April 1995, when it confirmed the deletion, that it would initiate a deductive modification (findings 43, 60, 66). On 18 September 1995, the government began processing the deductive change it had contemplated and notified CHHI that the estimated cost savings were $15,919 (finding 103).

When the deletion of a contract requirement causes a decrease in the cost of performance of the contract, the government is entitled to a downward adjustment in contract price to the extent of the savings flowing to the contractor therefrom. The government bears the burden of proving how much the downward adjustment should be for the deleted work. *CTA Incorporated*, ASBCA No. 47062, 00-2 BCA ¶ 30,947 at 152,762; *Knights' Piping, Inc.*, ASBCA Nos. 46985, 46987, 94-3 BCA ¶ 27,026. Since the acid passivation was never performed by appellant, the government is, under the Changes clause, entitled to issue a deductive change order. *J.B. White, Inc.*, ASBCA No. 36580, 89-2 BCA ¶ 21,810. CHHI had ample notice that if this requirement were deleted from the contract specifications, the government would issue a deductive modification. We conclude, accordingly, that the government acted within a reasonable time to assert this claim, and the government is entitled to recovery.

5. Reduction in Engineering Efforts to Design the Escape Trunk

The government claims that it is entitled to engineering, design and draftsman costs that it estimates CHHI saved in not designing the ET as required by the contract because it provided the VMW manufacturing drawings of an ET in other comparable facilities to CHHI. CHHI argues that the as-built drawings it received were full of errors and not usable to meet the government's desire for an ET identical to those previously furnished at other facilities.

The government wanted an ET identical to others that had been designed and installed at other facilities, which CHHI agreed to provide. CHHI needed information about other ETs to provide what was requested. We have found that the government provided the VMW drawings, but there was no direction that changed the terms of the contract (finding 21).

CHHI could not rely fully on the drawings because it continued to have responsibility for the design, fabrication, testing and installation of the ET and, accordingly, its subcontractor Dillon prepared its own design of the ET, which is part of the record (finding 30). The government did not issue a contract modification to substitute a particular ET design, issue a change order, or make a constructive change with respect to the ET. In the absence of a deductive change, the government is not entitled to recover cost savings for design of the ET.

ASBCA No. 53078 - Liquidated Damages

The government's claim under Contract 4025 is for liquidated damages in the amount of $304,150 that have been assessed from the contract completion date of 15 May 1995 until the end date[17] of the completion contract for CHHI's failure to complete contract performance. We have found that CHHI has claimed the remission of liquidated damages in the amount of $36,750 that was withheld from its invoices (finding 146).[18] The total assessment was for the period from 15 May 1995, the amended original contract completion date, to 8 November 1995, the date of the default termination, and the period from 9 November 1995 to 30 September 1997, the end date of the completion contract, which is a period of 869 days at the contract rate of $350 per consecutive day of delay (findings 15, 148). Appellant argues that when the government reestablishes a contract completion date, it disestablishes the former completion date for purposes of assessing liquidated damages against the contractor and thus waives its rights to assess liquidated damages based on the former completion date. Appellant further submits that the assessment is unjustified because the default termination was improper.

The government has the initial burden of proving that liquidated damages were due and owing. Once the government establishes that the contractor failed to meet the contract delivery date and the period of time for which the assessment was made is correct,

[17] The end date was the date the government accepted supplies from the completion contractor (finding 137).

[18] Appellant alleged the improper withholding of liquidated damages in its complaint filed in ASBCA No. 49375, but a claim for remission of liquidated damages was not included in its REAs and is not within the scope of that appeal (R4, tab 206). Appellant claimed in its repriced claim that the government was wrongfully withholding liquidated damages in the amount of $42,349 (and retainage of $81,392) (R4, tabs 560 at 29, 563 at item 2, task 17-5). This claim is within the scope of ASBCA No. 53080, but discussed herein. DCAA in its audit verified the correctness of these amounts (R4, tab 659 at 13). They omit the withholding of $860 for the incomplete task. We have found the total liquidated damages shown as withheld on CHHI's invoices and confirmed in the government's Statement of Costs was $36,750. The other withholding was $87,851 for the same total of $124,601 that DCAA verified. (Findings 89, 94, 97, 98; ex. G-11 at 30)

then the appellant has the burden to show why the failure to complete was excusable. The government continues to have the overall burden of proof, and if the responsibility for days of delay is unclear, or if both parties contribute to the delay, for the government to recover liquidated damages the government must prove a clear apportionment of the delay attributable to each party. *Idela Construction Company*, ASBCA No. 45070, 01-2 BCA ¶ 31,437 at 155,257; *Skip Kirchdorfer, Inc.*, ASBCA Nos. 40515, 43619, 00-1 BCA ¶ 30,622 at 151,170.

The parties dispute the contract completion date for the purposes of assessing liquidated damages. The government maintains that it was 15 May 1995, while appellant argues that it was reestablished as 11 December 1995 (finding 120). By approving a new completion schedule or establishing a new contract completion date, without communicating its intention to maintain the original schedule for purposes of assessing liquidated damages, the government is bound by the substituted schedule. *See JEM Development Corp.*, ASBCA No. 42872, 92-1 BCA ¶ 24,709; *La Grow Corporation*, ASBCA No. 42386, 91-2 BCA ¶ 23,945; *D & S Roofing Co., Inc.*, ASBCA No. 29109, 85-2 BCA ¶ 18,114. The government's reliance on *Alvarez & Associates Construction Co., Inc.*, ASBCA No. 49341, 98-1 BCA ¶ 29,559 is misplaced. In that appeal, the government had assessed liquidated damages prior to and contemporaneously with sending a letter to the contractor that did not mention liquidated damages in establishing a new completion schedule. The Board considered that waiver requires the intentional relinquishment or abandonment of a known right or privilege and found no such intention in the circumstances of the appeal. The Board thus concluded that the government had not "waived" its right to assess liquidated damages because it was exercising the right at the time of sending its letter.

In this appeal there was no government communication of an intent to maintain the original schedule for purposes of assessing liquidated damages. The government last withheld liquidated damages on or about 28 August 1995 and notified CHHI on 25 September 1995 and 12 October 1995 that liquidated damages were accruing (findings 97, 105, 115). The completion date was reestablished on 23 October 1995 (finding 120). The termination was on 8 November 1995. There was no contemporaneous withholding of liquidated damages, and no notice to CHHI of Mr. DeAngelis's subjective intent that the completion date was not changed when the completion date was reestablished (finding 121). The government did not make a further assessment of liquidated damages for over four years (finding 148). Accordingly, we hold that the government was bound by its new contract completion date and could not assess liquidated damages for CHHI's failure to complete the hyperbaric facilities by 15 May 1995.

Furthermore, the government was not entitled to assess liquidated damages for delay from the revised original contract completion date of 15 May 1995 because appellant's performance was prevented by the government's failure to furnish the GFE recompression chambers. The government did not attempt to resolve the issues presented by the defective chambers until 27 July 1995 (finding 93). Appellant's failure to complete the contract prior to that date was excusable. *See Insulation Specialties, Inc.*, ASBCA No. 52090, 03-2

BCA ¶ 32,361. The government was not entitled to assess liquidated damages for the period 15 May 1995 through 11 December 1995.

On 25 August 2000, the date of the contracting officer's final decision on some of appellant's repriced claims, the government assessed liquidated damages for the period after 28 August 1995 until the end date of the completion contract. The government's claim for liquidated damages was for 869 days in the amount of $304,150 (finding 148). The government deducted the amount of $36,750 which was withheld from payments to CHHI during contract performance and claimed $267,400 in ASBCA No. 53078 (gov't stmt. at 31, ex. G-11). We have held the default termination proper, and the contractor is, accordingly, liable pursuant to the contract's Liquidated Damages clause for liquidated damages "accruing until the time the Government may reasonably obtain delivery or performance of similar supplies or services." FAR 52.211-11(b). The government has the burden of proving why liquidated damages should be assessed against CHHI for the 658-day period between 12 December 1995, following the new contract completion date and 30 September 1997, the end date of the completion contract.

Where there is no reprocurement of the defaulted supplies or services, however, there is no basis for assessment of liquidated damages. A contractor is not liable for liquidated damages for delay in delivery of supplies that were terminated for default and not repurchased. The government is required to establish that deliveries of similar supplies were made before an assessment of damages may be made under the Liquidated Damages clause. *See Manart Textile Company v. United States*,111 Ct. Cl. 540, 77 F. Supp. 924 (1948); *Standard Coating Service, Inc.*, ASBCA Nos. 48611, 49201, 00-1 BCA ¶ 30,725; *Tennis Court Specialties, Inc.*, ASBCA No. 25510, 82-2 BCA ¶ 16,054; *Hydro Flex Inc.*, ASBCA No. 20352, 77-1 BCA ¶ 12,353. In this case the government awarded a reprocurement contract to Tecnico for completion of the work in the FAT and the punch list items after not allowing CHHI's surety to use CHHI to finish the remaining work that could be done (finding 132). When Tecnico completed its contract, however, the government did not receive facilities "complete and useable" as provided in CHHI's contract (finding 2). The government did not provide GFP recompression chambers to the completion contractor and did not require the functional testing of the chambers that was specified (finding 137). The hyperbaric facilities that were the subject of CHHI's contract were not obtained by the government and there is, accordingly, no basis for the assessment of liquidated damages. The appeal of the government's claim for liquidated damages is sustained.

QUANTUM

Additional Findings of Fact

154. Appellant's claims for additional work under Contracts 4025 and 4036 break down into the following elements of costs: labor, material, other direct costs (travel and

per diem), subcontractor cost, manufacturing overhead, general and administrative costs (G&A), profit, bond, and interest.

155. CHHI's accounting system provided for employees to record their labor hours as direct costs to the contract when they were working on assigned tasks identified by number under the WBS (work breakdown structure) in CHHI's schedule. This normal practice is reflected in CHHI employees' time sheets. When CHHI employees were working on extra work beyond the scope of the contract, they did not have specific tasks for recording labor hours, but were instructed to record time to overhead that CHHI designated tasks 94-00 and 95-00. Thus CHHI does not have a breakdown of hours as to the various items involved in its claims. Some time in March to May 1995, Mr. Herblot assigned a special task number, 94-06-007, for the administrative tasks related to the preparation of the claims. (Tr. 1034-35, 1330-31, 1334-35, 1440)

Contract 4025

156. Ms. Dorothy Doherty, technical specialist with the DCAA, performed an audit of CHHI's repriced claims that is the subject of audit report No. 1101-1999W17100003, dated 29 November 1999 (R4, tab 659). She had previously conducted an audit of CHHI's original claims, which was the subject of a separate report, dated 13 February 1998 (R4, tab 658). She questioned $943,026 of the claimed $1,073,250 as CHHI repriced its claims under Contract 4025 (R4, tab 659). She was unable to verify in CHHI's accounting records that the labor costs claimed were incurred. DCAA questioned all of the direct labor costs of $26,546 because the hours recorded exceeded amounts recorded for the particular time period or were not verifiable to the tasks as alleged. She found that Mr. Herblot charged his time to both direct and indirect accounts. Appellant's counsel, by letter dated 4 November 1999, explained that hours recorded to overhead in the repriced claim were removed from the overhead pool and added to the direct labor base for calculation of the overhead rates. The auditor did not take into account time recorded to CHHI's overhead categories. DCAA took the position in the audit report that "often" the claimed costs "represent more hours than were recorded on the contract" (*id*. at 2), and that direct costs claimed for Messrs. Herblot and Burt were therefore excessive and unreasonable. According to the DCAA audit, since CHHI charged time both to direct and indirect cost, costs not found recorded as direct costs were in indirect costs and part of the indirect rate applied to the contract. (R4, tabs 662, 664, pt. L-1 at 4 and pt. L at 34; tr. 1425, 1442-45, 1525, 1532-35) The government did not perform a technical audit[19] to evaluate whether extra cost was incurred. Ms. Doherty did not consider

[19] The audit report states:

> Technical evaluation was requested and has been denied by DCMC as having no additional value because DCMC did not have cognizance over the contract initially and have [sic] no basis to determine if the alleged hours incurred are reasonable for the alleged changed conditions and tasking requirements.

that there was something tangible to evaluate in terms of required time and materials for construction. The hours claimed for Messrs. Herblot and Burt and Ms. Cheryl Brown-Gagnon were administrative. Some but not all of the costs claimed were charged as direct costs. (R4, tab A-72; tr. 1486, 1529)

157. Mr. Herblot considered the REAs "incomplete" because more time was charged to overhead than included in the estimated labor hours in the REAs (tr. 1033). He repriced the claim by determining the time period for each REA by the dates of the CHHI-government correspondence with respect to the particular problem. For each specific task, it was determined who conducted the communications with the government and potential third party vendors, which included Messrs. Herblot, Burt, and others. In each instance Ms. Brown-Gagnon did the typing work, which is administrative work properly charged to overhead. (Tr. 1050) CHHI compared the overhead charges in accounts 94-00 and 95-00 during that same period to deduct from overhead what was considered the amount of time to perform the designated task, which was then allocated to the related contract claim. CHHI provided the following explanation of reclassifying overhead as direct labor charges in the repriced claim:

> CHHI personnel sometimes, in order not to show a job at a loss, charged their time to overhead. However, CHHI has estimated the amount of added work due to the Government actions and inactions. These amounts have been removed from the overhead pool and added to direct labor for calculation of overhead.

(R4, tab 563, pt. 2 at 6, n.1) According to Mr. Herblot, a conservative, honest amount of labor hours was claimed for each of the items in the separate claims using this methodology. According to Ms. Doherty, the time periods and numbers of hours changed from one claim to another and it was "like pull a number out of the air" (tr. 1485). A comparison of the estimated labor hours in CHHI's REAs and those in the repriced claims under Contract 4025 after the reclassification reveals an increase of 21.67 percent.[20] We find the revised estimates of direct labor costs in the repriced claims less credible than the estimates that were prepared contemporaneously with the contract performance when the REAs were submitted. Appellant used labor rates that the government has not disputed. (Ex. G-13 at 7; tr. 1037-38, 1041-42, 1045, 1050, 1093, 1532) Appellant prepared its

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(R4, tab 659 at 3)

[20] The DCAA audit report of the REAs questioned $22,079 in direct labor costs from which we deducted $261 for claim 16, delay and disruption, to find that direct labor for claims 1-15 increased from $21,818 to $26,546, or 21.67 percent (R4, tabs 658 at 3, 5; 659 at 17). The audit reports for Contract 4036 show that CHHI did not increase its estimated labor costs in repricing these claims (R4, tabs 661, 662).

Statement of Costs from the information in its repriced claims (R4, tabs 563, 564, vol. II; ex. A-70; tr. 1049).

158. Some of CHHI's claims also included other direct costs itemized for travel and per diem and subcontractor costs charged by Keevan or others (ex. A-70).

159. The audit report questioned CHHI's claim for overhead of $13,944 because the base costs to which overhead was applied were questioned. Ms. Doherty in performing the audit evaluated the costs for proper classification as overhead or G&A and arrived at applicable overhead and G&A rates. CHHI claimed overhead at the average rate of 52.53 percent for the years 1994 and 1995 (ex. A-70; tr. 1053). CHHI's audited rates were 51.08 percent for 1994 and 42.86 percent for 1995, for an average rate of 46.97 percent (R4, tab 659 at 6; tr. 1445-47). CHHI has pointed to no evidence of its adjustments for removing labor charged to overhead to direct labor. CHHI claimed G&A at the average rate of 17.606 percent (ex. A-70; tr. 1054). CHHI's audited G&A rates were 19.94 percent for 1994 and 20.14 percent for 1995, for an average rate of 20.04 percent (R4, tab 659 at 6; tr. 1447). CHHI did not dispute the DCAA rates for overhead or G&A with persuasive evidence or testimony (ex. G-11 at 4; tr. 1055-56, 1548-49). We find CHHI's average overhead rate was 46.97 percent and its average G&A rate was 20.04 percent.

160. The audit report questioned the profit of $10,354 because profit is not allowable as provided by the FAR on termination settlement expenses, work not performed, or if the contract would have sustained a loss if it had gone to completion (R4, tab 659 at 7). CHHI claimed profit at the rate of 15 percent. CHHI raised the claimed profit from the five percent it bid because it was financing the work when the government did not make payment and the risk involved in the project was increased. (Ex. A-70; tr. 1056-57) The audit report stated that 15 percent profit would be a windfall and profit should not exceed five percent (R4, tab 659 at 7; tr. 1448, 1549-51). The government did not accept CHHI's proposed 15 percent profit rate in negotiating Modification No. P00006, but provided profit at the rate of 7 percent based on weighting factors for performance of a defined government statement of work with an available subcontractor that entailed minimal risk (R4, tab 339 at 7-8). We find no reason to limit CHHI's profit rate to 5 or 7 percent or to grant CHHI profit at the rate of 15 percent. A reasonable rate of profit is 10 percent.

161. CHHI claimed bonding cost at the rate of 2.5 percent, the amount of which could only be determined following the Board's decision (ex. A-70; tr. 1057-58). The audit report questioned the cost because there was no longer a bond in existence for CHHI on Contract 4025 after it was terminated (R4, tab 659 at 8; tr. 1449). If entitlement were determined, the government agreed to the rate of 2.5 percent under Contract 4025 (ex. G-11 at 4; tr. 1450, 1551-52).

162. CHHI claimed proposal preparation costs in the amount of $4,250 paid to ICM in 1995 for preparation of the REA (tr. 1119-20). The audit report questioned the amount as costs of claim preparation which are specifically unallowable under FAR 31.205-47 (R4,

tab 659). Documentation of this cost shows an ICM invoice, dated 19 April 1995, that is stamped paid on 20 April 1995 (R4, tab 664, pt. P). The calculation of overhead at 42.86 percent, G&A at 20.14 percent, and profit at 10% increases this claim to $8,023.

CHHI Claims

Claim 1. Air Compressors

163 CHHI estimated that it incurred 146 labor hours for proposal preparation costs and 56 labor hours for rescheduling as a result of the government's failure to deliver GFP air compressors (R4, tab 563, tasks 1-1, 1-2; ex. A-70; tr. 1042-43, 1048-51). When CHHI repriced its claim, it changed the allocation of estimated labor hours for these tasks (R4, tab 247; ex. A-70). We find a reasonable number of direct labor hours for proposal preparation was 80. CHHI incurred direct labor costs of $1,978 by application of the agreed wage rates.[21] Since this work was performed in 1994, overhead is awarded at the rate of 51.08 percent and G&A at the rate of 19.94 percent.

Claim 2. Pipe Trenches

164. CHHI estimated that it incurred 72 hours for design work as a result of the defective specifications and 42 hours for additional effort digging the trenches as a result of the government's denying CHHI access to the site in 1994 (R4, tab 563, tasks 2-1, 2-2, 2-3; ex. A-70; tr. 1060). When CHHI repriced its claim, it increased the estimated labor hours from 64 to 114 for this task. We find a reasonable number of direct labor hours for the additional effort was 64. CHHI incurred direct labor costs of $1,610 by application of the agreed wage rates.[22] CHHI claimed $5,375 in subcontractor cost which is the estimated additional cost incurred by Keevan due to the prevention of performance and increased difficulty of cutting concrete roadways and parking lots and replanting grass (ex. A-70; tr. 1060). The government challenges the cost as never paid (ex. G-13 at 5). This cost is supported by Keevan's letter charging CHHI the increased amount (finding 87, *supra*). CHHI claimed $1,250 in other direct costs for one week of additional travel costs incurred by Mr. Burt. CHHI received compensation under Modification No. P00003 for additional travel resulting from the prevention of performance (finding 40, *supra*). The one week that Mr. Burt was on site for the trenching was not additional, but part of the contract work to

[21] Mr. Herblot 40 hours at $26.44 = $1,058, Mr. Burt 40 hours at $23.00 = $920, for a total of $1,978. The audit report shows that the estimate of Mr. Herblot's time exceeded the number of hours charged during the relevant period of time (R4, tab 659 at 18). We reduce the estimate to the number of hours claimed for Mr. Burt. For each of the claims we have deleted the estimated labor hours for Ms. Brown-Gagnon.

[22] Mr. Herblot 40 hours at $26.44 = $1,058, Mr. Burt 24 hours at $23.00 = $552, for a total of $1,610.

supervise the trenching on behalf of CHHI (finding 22, *supra*) and is not compensable. Since the trenching was performed in 1994, overhead is awarded at the rate of 51.08 percent and G&A at the rate of 19.94 percent.

Claim 4. Fabrication of the Escape Trunk Trainer

165. CHHI estimated that it incurred 147.5 hours in 1994 for research and development to redesign the ET to meet the government's changed requirement that ½ inch rather than 3/8 inch steel be used in fabrication of the ET. When CHHI repriced its claim it decreased the estimated labor hours for this task, but we have found the estimate to have been inflated. (R4, tab 248, tab 563, task 4-1; ex. A-70; tr. 1075-76) We find a reasonable number of direct labor hours for the research and development to be 64.5. CHHI incurred direct labor costs of $1,618 by application of the agreed wage rates.[23] Appellant also claimed increased material costs of $2,638, including freight, due to the increased thickness and weight of the steel, which Mr. Herblot did not explain. Appellant has stated that the cost for increase in material costs is owed to Dillon Boiler. (R4, tab 563, task 4-1; ex. A-70; tr. 1073-74) DCAA questioned the material and freight costs because there was no invoice or liability in the accounting records for Dillon Boiler (R4, tab 659). We have found no evidentiary support for material and freight costs claimed for this task, and they are not compensable. Since the work was performed in 1994, overhead is awarded at the rate of 51.08 percent and G&A at the rate of 19.94 percent.

Claim 8. FAT Flange

166. CHHI estimated that it incurred 45 hours to develop a solution for the government's defective GFP in 1994 and 1995 (R4, tab 563, task 8-1; ex. A-70; tr. 1082-83). When CHHI repriced its claim, it increased the estimated labor hours from 32 to 45 for this task. We find a reasonable number of direct labor hours for proposal preparation and rescheduling was 32. CHHI incurred direct labor costs of $791 by application of the agreed wage rates.[24]

Claim 9. Recompression Chamber Grounding

167. CHHI estimated that it incurred 74 hours to resolve problems with the lack of grounding for the recompression chambers in 1994 and 1995 (R4, tab 563, task 9-1; ex. A-

[23] The audit report shows that these estimates were inflated. Mr. Herblot charged 78 hours during the relevant period of time and would not have spent all his time on this one issue (R4, tab 659 at 19). We reduced the estimates by one half for this claim. Mr. Herblot 39 hours at $26.44 = $1,031, Mr. Burt 25.5 hours @ $23 = $587, for a total of $1,618.

[24] Mr. Herblot 16 hours at $26.44 = $423, Mr. Burt 16 hours at $23.00 = $368, for a total of $791.

70; tr. 1084-85). When CHHI repriced its claim, it increased the estimated labor hours from 32 to 74 for this task. Appellant presented testimony of Mr. Donald M. Stumpf, who was qualified as an expert electrical engineer, that the amount of time spent by Mr. Herblot, which appellant estimated at 61 hours, was reasonable to resolve this issue because of the complexity of the tasks and the primary importance of the grounding for human safety and the usability of the facility (tr. 880, 885, 893). We find a reasonable number of direct labor hours for resolution of the grounding problems was 69. CHHI incurred direct labor costs of $1,797 by application of the agreed wage rates.[25]

Claim 10. Recompression Chamber Modification

168. CHHI estimated that it incurred 34.5 hours on the portion of this claim involving both cost proposals and rescheduling (R4, tab 563, task 10-2; ex. A-70; tr. 1088-89). We have held CHHI entitled to recover proposal preparation costs, but found that it did not reschedule as a result of the modification and is not entitled to increased costs on that portion of the claim. When CHHI repriced its claim, it did not increase the estimated labor hours for this task (R4, tab 248, item 11). We find that the additional effort to provide cost estimates for radiographic examination of the welds on the recompression chambers was *de minimis* since the proposals in the record were incorporated with the proposals for recompression grounding discussed above.

Claim 13. Changes in Pipe Routing

169. CHHI estimated 53 hours for design and preparation work for changing pipe routing at the Aid Station building and the piping for the Haskell pumps (R4, tab 563, task 13-1; ex. A-70; tr. 1095-96). When CHHI repriced its claim, it increased the estimated labor hours from 48 to 53 for this task. Appellant did not segregate the estimated hours for the different aspects of the changed piping and has not provided a basis to estimate the hours for reworking the piping for the Haskell pumps after the location was changed, as opposed to the changed pipe routing at the Aid Station building for which there is no entitlement.

Claim 15. FAT Hatch

170. Appellant estimated 12 hours for loss of time attempting to install the ET through the FAT hatch in 1995 (R4, tab 563, task 15-1; ex. A-70; tr. 1099-1102).[26] When CHHI repriced its claims, it did not change this claim. We find four hours, or half the day, is a fair and reasonable estimate of additional time for the CHHI representatives who were

[25] Mr. Herblot 61 hours at $26.44 = $1,613, Mr. Burt 8 hours at $23.00 = $184, for a total of $1,797. The hours for Mr. Burt appear under item 10, Chamber Grounding (R4, tab 248).

[26] The correct total is 12, not 120 stated in CHHI's Statement of Costs (ex. A-70).

present on site for the installation. By application of the agreed wage rates to a total of 12 hours, the total direct labor cost is $207.[27] Since this work was performed in 1995, overhead is awarded at the rate of 42.86 percent and G&A at the rate of 20.14 percent.

171. CHHI claimed $50 in per diem based on one-half of the per diem costs incurred by Messrs. Johnson and Fox. The government disputes the cost as not identified as to an employee or date. (Exs. A-70, G-13 at 17) Recovery of this cost is denied as an amount that did not increase as a result of the time for installation of the ET. CHHI claimed subcontractor cost of $2,753, which is one-half of the amount billed by Keevan for equipment rented for the installation. This cost has been verified by the government and is supported by an invoice, dated 21 July 1995, for setting escape hatch from Keevan in the amount of $5,507. CHHI paid the invoice on 26 October 1995. (R4, tab 668, item D at 18; ex. G-13) CHHI is entitled to compensation of $2,753 for subcontractor costs, plus overhead and G&A at the 1995 rates.

Government Claim

Claim 3. Elimination of Acid Passivation Requirement

172. The government estimated the cost of passivation of the exterior piping from the compressor room to the FAT, on the exterior of the escape trunk, and from the compressor room to the Aid Station building and then the Aid Station building to the OCC building which was measured by scaling the drawings. The government decided that CHHI would engage a subcontractor to passivate only the outside of the pipes, use teflon plugs to cap the ends of the pipes, ship the pipes out to and back from a location in the Mid-Atlantic region, and load and unload the pipes at CHHI's facility before shipping the piping for installation at the job site. In September 1995, Mr. DeAngelis assigned Mr. Alan Schmutz, a new engineer in his office to prepare the estimate. After Mr. Schmutz had four years of work experience, he reviewed his estimate in September 1999 and lowered the estimated labor hours for the task and changed the overhead rates to approximate CHHI's actual overhead rates. (R4, tabs 549, 550; tr. 1875-77)

173. The government's Hyperbaric Construction Cost Estimate, dated 7 September 1999, that was prepared by Mr. Schmutz and approved by Mr. DeAngelis is $11,961 for passivation of piping. The government used an average amount of $869 for the process that would be performed by a CHHI subcontractor based on quotes from metal refining companies, added CHHI direct labor for engineering and planning the work, plugging the pipes, and loading and unloading the piping, material cost of teflon plugs, and shipping costs based on the weight of the pipe lengths. The government applied a 50 percent overhead rate, an 8 percent G&A rate, a 6 percent profit rate, and a 2.5 percent bond rate. The appropriate rates for application to a fair and reasonable estimate for the deleted passivation

[27] Mr. Herblot four hours at $26.44 = $106, Mr. Johnson four hours at $13.25 = $53, Mr. Fox four hours at $12.00 = $48, for a total of $207.

requirement are those found above for overhead, G&A, profit and bond in 1995 (findings 159-61, *supra;* ex. G-11 at 22-23).

174. CHHI did not plan on using a subcontractor, but could perform the passivation, which was required on the exterior and interior of the pipes, at its facility by immersing the pipes into the nitric acid solution in batches for the required 30 minutes before removal and rinsing. CHHI would not have incurred costs of plugs or shipping. CHHI estimated that 2 technicians with a labor rate of $14 working 50 percent of their time over three days could have performed all the required passivation at an estimated labor cost of $336 with an estimated $400 in materials. (App. resp. to Gov't Stmt. at 7-8; tr. 1873) We find this calculation more reasonable than that made by the government.

Contract 4036

175. The DCAA audit report No. 1101-1999W17200013, dated 23 November 1999, questioned $54,400 of the claimed $89,949 as CHHI repriced its claims under Contract 4036 (R4, tab 662). Ms. Doherty had previously conducted an audit of CHHI's original claims, which was the subject of a separate report, dated 8 December 1997 (R4, tab 661). Ms. Doherty was unable to verify the labor costs claimed in CHHI's accounting records and questioned all of the direct labor costs of $4,143. CHHI claimed per diem of $25 for one employee for one day. DCAA questioned the cost because of a lack of identification of which day and which employee incurred the cost. DCAA questioned CHHI's claim for overhead of $2,176 and $1,073 of CHHI's claim of $1,425 for G&A expenses because the base costs were questioned and determined the average rates for the years 1994 and 1995. (R4, tab 662) We have found CHHI's overhead rate was 46.97 percent and its G&A rate was 20.04 percent (finding 159, *supra*).

176. For claim 1 under Contract 4036, CHHI estimated that it incurred 77 hours for proposal preparation costs for an electrical upgrade to the defective electrical system in 1994 and 1995 (R4, tab 564, task 1-1; ex. A-71; tr. 1134). When CHHI repriced its claims, it did not increase the estimated labor hours for this task (R4, tab 247). We find a reasonable number of direct labor hours for this task was 77. By application of the agreed wage rates, CHHI incurred $1,821 in direct labor costs.[28]

177. CHHI claimed one day of per diem for Mr. Burt's on-site meetings with the ROICC at $25, which DCAA verified was the correct rate of per diem paid by CHHI. There is no dispute that CHHI spent time on site as a result of this problem, and we find CHHI reasonably incurred this cost as a result and is entitled to compensation in an additional amount of $25 for this claim. (R4, tab 662; ex. A-71; tr. 1132)

[28] Mr. Herblot 48 hours at $26.44 = $1,269, Mr. Burt 24 hours at $23 = $552, for a total of $1,821.

178. CHHI claimed retainage in the amount of $24,178. DCAA found the amount due. It had not been paid because CHHI's invoice, dated 11 October 1995, was returned for failure to use the proper NAVFAC form and because retainage could not be released until CHHI completed its final requirements. Since CHHI did not resubmit its invoice for payment of retainage after completion of the punch list items, the government did not make this payment. (R4, tab 662)

179. CHHI claimed attorney fees including all fees associated with the appeal in the repriced claim in a total amount of $5,376 (ex. A-71). CHHI identified the amount in the repriced claim as incurred for ICM services (R4, tab 564, pt. 11). DCAA found a supporting invoice, dated 7 June 1995, in the amount of $4,250 from ICM that was paid by CHHI. DCAA also verified CHHI Federal Express charges in the amount of $24 documented around the time of submission of CHHI's REAs (R4, tab 666, item F). DCAA questioned the balance of $1,102 as unidentified additional costs (R4, tab 662). We find CHHI has substantiated a total of $4,274 in proposal preparation costs paid to ICM in 1995 for preparation of the REA. The calculation of overhead should be at 42.86 percent, G&A at 20.14 percent, and profit at 10 percent.

DISCUSSION

Appellant bears the burden of proof on its affirmative claims. CHHI must prove not only that the alleged costs were incurred, but also that the alleged costs are reasonable, allowable and allocable to the appropriate contract. *See ITT Federal Services Corp. v. Widnall*, 132 F.3d 1448, 1451 (Fed. Cir. 1997).

The government challenges appellant's quantum claim on the grounds that it is not based on actual cost data, but estimates which are required to be supported by detailed, substantiating, and corroborating data. The government ignores appellant's evidence presented by Mr. Herblot, who prepared the estimates, and the supporting documentation identified in the record. The government relies on *Leopold Construction Company, Inc.*, ASBCA No. 23705, 81-2 BCA ¶ 15,277, for rejecting a contractor's estimates for field labor hours where there was no supporting evidence of actual labor hours, time records, or the nature of the work or its relation to the conduct for which the government was held liable. For claimed additional engineering services, the contractor presented estimates prepared after the Board's decision on entitlement and after the parties' negotiations in an attempt to reach a settlement of the quantum issue and in large measure only repeated estimates prepared prior to commencement of the work. The government stipulated an amount to which it admitted liability, which the Board accepted to sustain the appeal in part, in the absence of evidence from the contractor that would provide a reasonably correct approximation of the damage sustained by the contractor. This decision stated the governing principles by quoting *Wunderlich Contracting Company v. United States*, 173 Ct. Cl. 180, 351 F.2d 956 (1966):

> "A claimant need not prove his damages with absolute certainty or mathematical exactitude . . . . It is sufficient if he furnishes the Court with a reasonable basis for computation, even though the result is only approximate . . . . Yet this leniency as to the actual mechanics of computation does not relieve the contractor of his essential burden of establishing the fundamental facts of liability, causation and resultant injury . . . . It was plaintiff's obligation in the case at bar . . . to provide a basis for making a reasonably correct approximation of the damages which arose therefrom."

81-2 BCA at 75,647.

In this case we have Mr. Herblot's estimates of direct labor hours assigned to specific tasks within CHHI's REAs that were based on his experience and best judgment. Mr. Herblot's testimony as to the nature of the additional work required as a result of the government's defective specifications, defective GFP, and differing site conditions is evidence of resultant injury. He was familiar with all aspects of the job and had experience in estimating labor costs for tasks from submitting proposals to the government. His estimates were based on his own familiarity with the work performed. In addition, the REA estimates were supported by correspondence and documents evidencing work performed for resolution of the problems.

The government's challenge to Mr. Herblot's estimates of direct labor hours was no more than vague, generalized assertions. The DCAA audit report and Ms. Doherty's testimony reflect only that CHHI's assignment of labor hours to the additional tasks lacks documentary support. The government did not have a technical evaluation of the time for the tasks involved and presented no testimony from its witnesses to establish the unreasonableness of Mr. Herblot's assignment of labor hours to various tasks claimed as additional work. CHHI's accounting records were made available for two audits conducted by DCAA and have been included in the record. The government could have made its own analysis of the direct labor estimated to have been incurred for additional tasks. The government's principal witness, Mr. DeAngelis was familiar with all of the problems that arose on the contract, but provided no estimates in rebuttal. There is no indication of unsatisfactory work on the part of CHHI (finding 131). The government has merely argued without supporting evidence that CHHI "misjudg[ed] what it took to perform the contract, whether it deliberately or accidentally underbid the job" (gov't br. at 290).

In our view CHHI's estimates have reasonable basis in fact and constitute sufficient evidence for us to make a fair and reasonable approximation of the damages. The estimates were revised after CHHI retained new counsel and during the course of the litigation, based on Mr. Herblot's review of overhead hours charged, when he repriced the claims. At this point appellant reviewed overhead charges and removed hours recorded for Messrs. Herblot

and Burt and others to increase the direct labor costs claimed. The reclassification of overhead costs as direct costs is improper when done for purposes of calculating unabsorbed overhead. *Wickham Contracting Co. v. Fischer*, 12 F.3d 1574, 1578-79 (Fed. Cir. 1994); *L.W. Schneider, Inc.*, ASBCA Nos. 44533, 45181, 95-2 BCA ¶ 27,774 at 138,485, n.3; *L & H Construction Co., Inc.*, ASBCA No. 23620, 81-1 BCA ¶ 14,823 at 73,160. It was not in accord with CHHI's accounting system to remove project director and project manager costs from overhead and charge them directly to the contract. CHHI's change of recorded costs for the purpose of increasing its direct labor estimates was improper.

We also consider the addition of labor hours and costs to those that were estimated contemporaneously with the submission of the REAs to be less credible. The claims under Contract 4025 increased by over 20 percent in the repricing and resubmission. We have concluded that CHHI engaged in direct labor on tasks identified in CHHI's claims for less than the number of hours claimed, which we have adjusted downward. Rather than applying a percentage adjustment, we have generally adopted the estimates that were made contemporaneously with the submission of CHHI's REAs as the reasonable amount of increase caused by the government actions. CHHI did not make a similar increase in repricing its claims under Contract 4036, and we have made no adjustment for the hours assigned to the one task under that contract for which we have held CHHI entitled to recovery.

Appellant is entitled to recovery of other direct costs which were substantiated by actual cost data, its overhead, G&A, and bond costs. Appellant is entitled to a reasonable profit on the costs subject to an equitable adjustment. Considering the risk factors, we have concluded that 10 percent is a reasonable rate of profit in the circumstances here. *See Defense Systems Corporation,* ASBCA No. 44131R *et al.*, 00-1 BCA ¶ 30,851. We further conclude that appellant is entitled to payment of the government's retainage for work that was satisfactorily completed under Contract 4036 (finding 178). Appellant's further entitlement is to proposal preparation costs that have been shown to have been paid for submission of its REAs under both Contracts 4025 and 4036 (findings 162, 179). A contractor is entitled to recovery of consulting costs incurred in connection with the administration of a contract that do not constitute costs incurred in connection with the prosecution of a claim against the government, provided they are also reasonable. *Bill Strong Enterprises, Inc. v. Shannon*, 49 F.3d 1541, 1549 (Fed. Cir. 1995), *overruled in part on other grounds, Reflectone, Inc. v. Dalton,* 60 F.3d 1572, 1579 (Fed. Cir. 1995) (en banc); *Advanced Engineering & Planning Corporation, Inc.*, ASBCA Nos. 53366, 54044, 03-1 BCA ¶ 32,157, *aff'd*, 292 F. Supp. 2d 846 (E.D. Va. 2003). We consider an equal amount of $4,250 in ICM fees that appellant has claimed as proposal preparation costs under both Contracts 4025 and 4036 unreasonably disproportionate to the amounts of its REAs under the two contracts. We reduce the amount of ICM fees for REA proposal preparation recoverable under Contract 4036 to 25 percent of the same amount of fees claimed under Contract 4025.

CONCLUSION

The failure to give assurances of continuing performance in response to the government's cure notice was inexcusable. Appellant's appeal of the termination for default in ASBCA No. 49401 is, accordingly, denied.

We have calculated CHHI's entitlement to a quantum recovery for the equitable adjustment claims in ASBCA No. 49375 as follows:

Contract 4025	Direct Costs and Subcontractor Costs
Claim 1	$ 1,978
Claim 2	6,985
Claim 4	1,618
Claim 8	791
Claim 9	1,797
Claim 10	0
Claim 13	0
Claim 15	2,960
Subtotal	$ 16,129
Overhead	$ 7,889
G&A	4,801
Profit @ 10 %	2,882
Bond @ 2.5 %	720
Subtotal	$ 32,421
Contract 4036	Direct Costs
Claim 1	$ 1,821
Overhead @ 46.97 %	855
G&A @ 20.04 %	536
Profit @ 10 %	321
Subtotal	$ 3,533
Total	$ 35,954

ASBCA No. 49375 is sustained in part and otherwise denied.

Appellant's appeal of the government's assessment of liquidated damages is sustained in ASBCA No. 53078. The government is not entitled to recovery of liquidated damages that were assessed after the default termination.

In ASBCA No. 53080 appellant's claim 16 is denied. Claim 17 is sustained in part (proposal preparation costs, remission of liquidated damages, and release of retainage to the extent indicated below). We have calculated CHHI's entitlement to a quantum recovery for the equitable adjustment claims in ASBCA No. 53080 as follows:

Contract 4025		
REA Preparation Costs (with overhead, G&A, and profit) (finding 162)		$ 8,023
Remission of Liquidated Damages (finding 98)		36,750
Retainage (finding 77)		5,000
	Subtotal	$ 49,773
Contract 4036		
REA Preparation Costs (with overhead, G&A, and profit) (finding 179)		$ 2,053
Retainage (finding 98)		24,149
	Subtotal	$ 26,202
	Total	$ 75,975

ASBCA No. 53080 is otherwise denied.

We have calculated the government's entitlement to a quantum recovery in ASBCA No. 49882 as follows:

Contract 4025	Direct Costs
Claim 3	$ 736

Overhead @ 42.86 %	315
G&A @ 20.14 %	212
Profit @ 10 %	126
Bond @ 2.5 %	32
Total	$1,421

ASBCA No. 49882 is sustained in part and otherwise denied.

ASBCA Nos. 53077, 53079, and 53292 are dismissed as duplicative appeals.

Appellant is entitled to a total recovery of $111,929, plus interest in accordance with the Contract Disputes Act, 41 U.S.C. § 611, from the contracting officer's receipt of appellant's certified REAs constituting claims, which we have found were dated 16 June 1995, except for appellant's Claim 17 in appellant's repriced claim, which was dated 30 July 1999, decided in ASBCA Nos. 53078 and 53080. The government is entitled to recovery in the amount of $1,421 in ASBCA No. 49882.

Dated: 23 March 2004

LISA ANDERSON TODD
Administrative Judge
Armed Services Board
of Contract Appeals

I concur

I concur

MARK N. STEMPLER
Administrative Judge
Acting Chairman
Armed Services Board
of Contract Appeals

EUNICE W. THOMAS
Administrative Judge
Vice Chairman
Armed Services Board
of Contract Appeals

I certify that the foregoing is a true copy of the Opinion and Decision of the Armed Services Board of Contract Appeals in ASBCA Nos. 49375, 49401, 49882, 53077, 53078, 53079, 53080, 53292, Appeals of C. H. Hyperbarics, Inc., rendered in conformance with the Board's Charter.

Dated:

DAVID V. HOUPE
Acting Recorder, Armed Services
Board of Contract Appeals