J & D SERVICES OF NORTHERN MINNESOTA, INC.,	)	**AGBCA No. 98-126-1**
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	)	
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DECISION OF THE BOARD OF CONTRACT APPEALS

July 27, 1999

OPINION BY ADMINISTRATIVE JUDGE JOSEPH A. VERGILIO

J & D Services of Northern Minnesota, Inc. (contractor), of Duluth, Minnesota, filed this appeal with the Board on December 12, 1997. The dispute involves a contract, No. 50-0261-5-44, which required the removal of contaminated soil (and its replacement) at the Riverside Campground in the Boise National Forest, in Elmore County, Idaho, and the nearby excavation for and completion of a repository vault containing the contaminated materials. The respondent, the U. S. Department of Agriculture, Forest Service (Government), awarded the contract to J&D on September 12, 1995.

The Board has jurisdiction over this timely-filed appeal pursuant to the Contract Disputes Act (CDA), 41 U.S.C. §§ 601-613, as amended. The parties have submitted the case pursuant to Board Rule 11, without a hearing. The Board received briefs in December 1998, and supplemental briefs in February 1999.

The contract specifies that payment for the repository "vault excavation and screening," "vault liner" and "vault cap" is based upon "designed quantities," that is, for each item the contractor is to receive its unit price multiplied by fixed quantities; payment may vary only if there is an authorized change in work, or if there was an error in the original design data used to determine the designed quantities that causes the pay item total to vary by 15 percent or more.

The contractor contends that the Government negligently calculated the cubic yardage of vault excavation and screening. It seeks reimbursement for the volume of the vault depicted in the contract, without regard to any distinction between "excavation" and "excavation and screening." The contractor has demonstrated neither Government negligence nor entitlement to relief.

Under theories of contract ambiguity and Government negligence, the contractor asserts that it is entitled to reimbursement for additional excavation required to conform the vault slope to the installation recommendations of the liner manufacturer. The contractor has not demonstrated contract ambiguity, Government negligence, or entitlement. The Government required no more than was stated in the contract--installation of the material in accordance with the manufacturer's recommendations. While the design data (the side slopes) said to be used for the calculations proved unsuitable for the liner selected by the contractor, the contractor has demonstrated neither that the change in side slopes required the pay item to vary by at least 15 percent (the record does not reveal how the contractor priced its bid), nor that liner was unavailable that satisfied the contract requirements within the tolerances of the design data. Therefore, recovery is not justified.

Also under theories of contract ambiguity and Government negligence, the contractor seeks to recover what it deems to be additional costs for material and installation of liner and cap. Without proof, as in the above theory, the contractor has demonstrated neither ambiguity nor negligence nor entitlement. Recovery is not merited.

This contractor bears the burden of proof to demonstrate entitlement to relief and the amount of recovery. Having failed to satisfy that burden, the Board denies this appeal.

FINDINGS OF FACT

The contract

1. On September 12, 1995, the Government awarded to J&D the underlying contract, No. 50-0261-5-44, based upon sealed bids; the contract incorporates the terms of the solicitation (Appeal File (AF) at 43-49). The contract requires the removal (and replacement) of contaminated soil from the Riverside Campground in the Boise National Forest, in Elmore County, Idaho, and, at a nearby area, the excavation and completion of a repository vault containing the contaminated soil (AF at 142-46 (¶ J.3-2115.11)).

The work

2. One aspect of performance requires the excavation and lining of the repository vault to hold at least 6600 cubic yards of mill tailings and campground debris and a 12-inch (minimum depth) thick cover of excavated material (AF at 142 (¶ 2115.11.A.1) (vault excavation)).

3. As to the size and shape (a rectangular top with sides sloping to a smaller rectangular base) of the repository vault, the contract states:

> The vault shall be excavated to these approximate dimensions: Bottom dimension of 85 feet wide by 175 feet long by 12 feet deep; the top dimension will be approximately 121 feet wide by 211 feet long. A minimum of 1.5:1 side slope [horizontal to vertical] is recommended for safety.

(AF at 142 (¶ 2115.11.A.2) (soil stockpiling & screening).) The diagrams in the contract (with revision dates of July 1995) depict a different vault; that is, one with the same bottom dimensions (85 x 175 feet) and side slopes of 1.5:1 on three sides, but having top dimensions of 121 x 229 feet with a side slope of 3:1 along one of the widths accounting for the increased top length (AF at 151, 152). The Order of Precedence--Sealed Bidding clause (JAN 1986) (Federal Acquisition Regulation (FAR) 52.214-29), which is part of the contract, dictates that the diagrams resolve the inconsistency with the specifications (AF at 118 (§ J)).

4. The side slopes depicted in the diagrams, and expressly referenced as minimums in the specifications, are not necessarily those to be used by the contractor:

> Final approval of the finished grades, and compaction of the bottom and side slopes, prior to placement of the liner, will be given by the COR [contracting officer's representative], based on the liner manufacturer's recommendations. The installation contractor shall certify in writing that the surface on which the liner membrane is to be installed is acceptable before commencing work.

(AF at 142 (¶ 2115.11.A.1) (vault excavation).) The clause dictates that the approval of finished grades for the repository vault are dependent upon the liner manufacturer's recommendations. The bottom and sides of the vault are to be lined (vault liner), and the top is to be covered (vault cap), with high density material with the seams to be sealed, such that the contaminated material is contained. The contract specifies the minimum requirements for the liner material; the contractor selects the manufacturer and liner. The vault liner is to extend beyond the side slopes a minimum of 2 feet clear of the vault; the vault cap is to cover the contaminated materials and overlap the lower liner a minimum of 6 inches. (AF at 139 (¶ 2115.04), 143-44 (¶¶ 2115.11.B & E), 152.)

5. The contract requires more than the excavation of materials to form the repository vault. "The topsoil on the repository vault area shall be removed and stockpiled adjacent to the excavation for later placement over the vault to complete the vault sealing" (AF at 142 (¶ 2115.11.A.1) (excavation)). Further, the contractor must provide a screening operation:

> The Contractor will have to provide a screening operation that will remove all rocks to a 5 cm. (2 in.) or less diameter, for the material to be used as road surfacing material in the campground. Rocks in the 5-15 cm. (2-6 in.) shall be placed back into the vault or used as part of the covering for the vault.

(AF at 142 (¶ 2115.11.A.2) (soil stockpiling & screening).)

6. Regarding the upper portion of the repository vault (between contaminated materials and the vault cap) and what is to be placed above the vault cap, the contract specifies:

> After the tailings and campground debris are deposited into the vault, the contaminated material shall be covered with enough excavated material to achieve the shape shown on the drawings. [The diagrams depict materials 2 to 4 feet above ground level along the center line of the length of the vault, with a 2-5% slope to ground level along the edges of the vault (AF at 152 (vault cap & details)).] The shaped top of the contaminated material shall then be covered with additional lining material . . . . The top of the liner shall be covered with a minimum of 30.5 cm. (12 in.) of soil[18 inches pursuant to a contract diagram (AF at 152 (vault cap & details))], compacted with one pass of a manually operated vibrator. The stockpiled topsoil shall be placed on the finished top of the vault prior to mulching and seeding.

(AF at 144 (¶ 2115.11.E (vault sealing)).)

Method of payment

7. The "schedule of items" in the contract identifies a total of ten items for payment, which, when summed, represent the contract price: (1) mobilization, (2) vault liner, (3) vault cap, (4) vault excavation and screening, (5) campground excavation and haul, (6) sampling and testing--off site, (7) sampling and testing--on site, (8) campground soil replacement, (9) monitoring wells, and (10) roadway and runway blading and maintenance (AF at 54 (items 2115-1 through -10)). Further, "Measurement and payment for contract work will be made only for and under those pay items included in the SCHEDULE OF ITEMS. All other work and materials will be considered as included in the payment for items shown." (AF at 135 (¶ 100.01 (measurement and payment)).)

8. The contract specifies that reimbursement for vault excavation and screening, the vault liner, and the vault cap (items 2, 3, 4) is to be based upon "designed quantities" (DQ) (AF at 54). Such quantities

> denote the final number of units to be paid for under the terms of the contract. They are based upon the original design data available prior to advertising the project. Original design data include the preliminary survey information, design assumptions, calculations, drawings, and the presentation in the contract. Changes in the number of units SHOWN in the SCHEDULE OF ITEMS may be authorized under any of the following conditions:
>
> > (1) As a result of changes in the work authorized by the Contracting Officer.
> >
> > (2) As a result of the Contracting Officer determining that errors exist in the original design data used to determine designed quantities, that cause a pay item to change by 15 percent or more.

> (3) As a result of the Contractor submitting to the Contracting Officer a written request showing evidence of errors in the original design data used to determine designed quantities that cause a pay item total to change by 15 percent or more. The evidence must be verifiable and consist of calculations, drawings, or other data that show how the designed quantity is believed to be in error.

(AF at 136 (¶ 100.04(A) (methods of measurement)).) The contract specifies that the average end area method is to be used to compute volumes of excavation (AF at 135 (¶ 100.02)). Payment under the designated quantities method of measurement is distinguished from payment on an actual quantity basis (payment is based upon measurements of completed work) or a lump sum quantity basis (payment is made for a complete unit or item of work, including materials, equipment, and labor to complete the job; no quantities are measured for payment) (AF at 136 (¶¶ 100.04(B) & (C))).

9. Using the vault dimensions in the diagrams and the average end area method for calculation, both parties agree that the volume of the depicted vault is 9463 cubic yards (AF at 11, 29).

10. For "vault excavation & screening," the contract specifies a designed quantity of 7900 cubic yards. The contractor's unit price is $19 per cubic yard. (AF at 54 (item 2115-4).) The contract does not contain the calculations revealing either how the Government arrived at the cubic yardage or how the contractor determined its unit price. However, regarding the contractor's price per cubic yard, the Government's project inspector on this project contends that the contractor took the actual size of the vault, as depicted and as ultimately excavated, into account in bidding $19--the Government's estimate was $7; bids varied from $4.38 to $20 for the pay item (AF at 384 (¶ 11)). While the assertion is speculative, the contractor has presented no evidence regarding reliance or quantum to support its claims, and has not successfully rebutted or discounted the assertion.

11. The stated designed quantities are 3900 square yards for the vault liner and 3300 square yards for the vault cap; the contractor's unit prices are $7.00 and $7.50 per square yard, respectively (AF at 54 (items 2115-2 & -3)). Neither the contract nor the record contain the calculations revealing either how the Government arrived at the square yardages or how the contractor determined its unit prices. To cover the bottom and side slopes of the depicted vault, with the required 2-foot extension beyond its sides, requires approximately 3300 square yards of liner, which contains no allowance for seam overlap. Thus, the 3900 square yard designed quantity appears to be excessive. The vault cap figure of 3300 square yards approximates the top area of the vault (with the required extension).

Performance

12. During a post-award, pre-performance conference between the parties held on September 29, 1995, the contractor agreed to submit liner information by October 2 (AF at 268). On October 19, 1995, having reviewed the manufacturer's specifications, the Government approved the liner to be installed (AF at 256, 301-02 (¶ 10)).

13. By October 26, 1995, the contractor had excavated the repository vault to the approximate dimensions depicted in the drawings (AF at 246).

14. The record suggests that the contractor did the initial excavation without consulting the liner manufacturer or without regard to the slope requirements for the liner. In July 1996, when the liner was to be installed, the contractor states that it learned that the three side-slopes of the vault would have to be graded closer to 2.5:1. It discussed this matter with the Government, which suggested alternative methods to satisfy the installer's requirements, while specifying that the contractor was responsible for constructing the vault at the contract price and selecting the method for compliance with the liner manufacturer's requirements. (AF at 283 (¶¶ 11-14), 302-04 (¶ 15).)

15. The contractor chose the method it deemed appropriate to install the liner in accordance with the manufacturer's requirements; it excavated additional material to achieve side slopes of approximately 2.5:1, increasing the top dimensions of the repository vault to approximately 241 by 145 feet, while not altering the base of the vault (AF at 27-28, 283 (¶¶ 13-14, 16); Cich Affidavit (Aug. 10, 1998) at 5-6 (¶¶ 12-14)). The record does not demonstrate that the contractor screened the material removed. Further, given the volume of the vault as initially excavated (well in excess of 6600 cubic yards), nothing in the record suggests why the contractor could not have replaced some of the removed materials to achieve the desired slope, or have excavated deeper (making the vault deeper with a smaller rectangle at the base), building up the side slopes with the excavated materials, without removing any materials. These potential solutions would have minimized the variations the contractor encountered. Moreover, the record does not demonstrate that the designed slope was inappropriate for other liner satisfying the contract requirements, or that other compliant liner would have required the 2.5:1 slope and not an intermediate slope (that is, a slope between 1.5:1 and 2.5:1).

16. A letter dated August 7, 1996, to the Government from the subcontractor installing the liner specifies that phase one of the project has been completed with approximately 35,000 square feet of liner installed (AF at 216). This indicates that the bottom and sides of the repository vault were lined with approximately 3890 square yards of liner (AF at 283 (¶¶ 15-16)). The contract's designed quantity for vault liner is 3900 square yards (Finding of Fact (FF) 11).

17. The contractor contends that it utilized 3900 square yards of material for the vault cap (Gill Affidavit (Aug. 27, 1998) at 2 (¶ 5)). The designed quantity is 3300 square yards (FF 11).

18. On September 12, 1996, the Government recommended project acceptance as the Government deemed the project substantially complete; this followed suspensions and resumptions of work for delays the Government found not to be attributable to the contractor (AF at 182, 187).

The disputes

Vault volume

19. The contractor maintains that it is entitled to reimbursement for the entire volume, 9463 cubic yards as calculated, of the repository vault depicted in the contract diagrams at the contract unit

price of $19 per cubic yard for excavation and screening (AF at 27). It raised this allegation initially after contract completion. (Cich Affidavit at 1 (¶ 3)).

20. In a letter dated November 25, 1996, "[a]fter discussions with several of [his] peers and referencing legal precedences," the contracting officer (CO) at the time the dispute arose provided the following response to the contractor assertion that, in addition to the contract price, it is entitled to reimbursement at $19 per cubic yard (the line item price in the contract) for 1563 (= 9463 - 7900) cubic yards (c.y.):

> The problem in subject contract stems from an obvious error in calculating the cubic yards of vault excavation and screening in Item 0211504. The estimated quantity shown in the contract is 7,900 c.y. while the actual calculation of the item comes out to 9,463 c.y. That is an increase of 19.78% over the original estimated quantity. The error in design was the fault of the Government; therefore, the Government is liable for payment of an additional 4.78% of yardage on the referenced pay item.
>
> Since the Contractor has assumed 115% liability for the pay item, he has considered that he could excavate and screen up to 9,085 c.y. without additional payment. The excess yardage over and above this figure comes to 378 c.y.s which is what the Government is liable for. We believe that your unit price is high for this item, however at his time we are willing to pay you for this amount of yardage at your bid price of $19.00 per c.y. which totals $7,182.00.

(AF at 32-33.)

21. A successor CO, who denied the claim underlying this dispute, has taken a different position:

> The difference between the Contractor's claimed total for this item and the design quantity used in the contract is explained by an examination of the excavation components that make up this item.
>
> There are only two main components. The first is the topsoil to be removed and set aside for later replacement over the vault. The second is the much more involved excavation of the vault itself. This component includes not only removal of the soil, but screening to two different standards, and stockpiling in a staging area.
>
> During the design phase, it was necessary to estimate needed volume for the vault to contain the contaminated materials, the volume of top soil to cover the vault, and the size hole needed to contain both. The estimated volume needed for the two components and the overall hole size needed can be calculated as follows[.]

(AF at 11.) The successor CO maintains "that the quantity used in the contract for this pay item was for the vault excavation and screening only and did not include the removal of the topsoil from above the vault excavation" (Id. at 12).

Vault slope: volume

22. Regarding the slope, the contractor maintains that there exists an ambiguity in the contract: the contract places a responsibility upon the contractor and liner manufacturer for ultimately determining the proper slope for liner placement, while the diagrams depict three sides with a slope of 1.5:1 (Cich Affidavit at 5 (¶ 12)).

23. The contractor computes the volume difference in excavation between the side slopes at 1.5:1 and 2.5:1 as 1511 cubic yards, for which it seeks compensation at $19 per cubic yard, the contract price for "excavation and screening" (AF at 28; Cich Affidavit at 6 (¶ 14); FF 10). The contractor does not maintain that it screened any of this excavated material.

24. The CO denied this claim, with the following rationale: "The contract did not incorrectly establish a side slope specification of 1.5:1. The contractor failed to make himself aware of information readily available to have a clear understanding of the contract." (AF at 15.)

Vault slope: liner and cap

25. The contractor predicates its basis for relief for allegedly extra vault liner and cap on what it describes as a change in the design of the vault, with three of the slopes changing from 1.5:1 to 2.5:1. Not differentiating between liner and cap, the contractor calculates the additional material needed because of the three changed sides as 12,168 square feet (reflecting an additional 12 feet around the three sides of the vault for both liner and cap), which it prices at $.93 per square foot, plus a 25 percent for overhead and profit. Thus, it seeks $14,415.30. (AF at 28.) The square foot rate, plus markup, amounts to $10.4625 per square yard. The contractor has supported this claim with an invoice which reflects that it was billed at the rate of approximately $.635 per square foot for additional material for the cap, which amounts to approximately $7.135 per square yard (including the markup of 25 percent). (Gill Affidavit at 2 (¶ 5) and Exhibit A). The contractor's unit prices for liner and cap are $7.00 and $7.50, per square yard, respectively (FF 11).

26. In denying this claim, the successor CO makes the assumption that the vault liner and cap were not placed in accordance with the terms and conditions of the contract--that is, he assumes (without support in the record) that the liner did not reach the ground level and that the cap was placed below the ground level and, therefore, was of a smaller dimension than the vault size at ground level. The CO concludes that the contractor failed to provide evidence that there were errors in the design data that resulted in changes in the pay item total of 15 percent or more. Moreover, given his assumptions, the CO concludes that the design quantities were appropriate to the work done. (AF at 18-19.)

DISCUSSION

The contractor presents three bases for recovery. First, it asserts that the Government negligently calculated the repository vault design quantity of 7900 cubic yards for excavating and screening; the contractor concludes that it is entitled to reimbursement of $29,697, for an additional 1563 cubic

yards at $19 per cubic yard. Second, the contractor relies upon theories of contract ambiguity and Government negligence to recover for what it describes as additional excavation to conform the slopes and dimensions of the vault to requirements of the liner manufacturer; it claims entitlement to $28,709, for an additional 1511 cubic yards at $19 per cubic yard. Third, the contractor contends that the changes in the vault side slopes and dimensions changed the square yardage of liner and cap it was required to install. It claimed entitlement to $14,415.30 (representing $11,316.24 for 12,168 square feet of material at $.93 per square yard, plus $2,829.06 reflecting overhead and profit of 25 percent); in its brief, the contractor claims entitlement based upon 8850 square feet of additional material.

Repository vault calculations

The contract diagrams depict the repository vault to be excavated. From the given dimensions, one can calculate the volume of the vault--9463 cubic yards using the average end area method for calculation. The contract specifies the elements of compensation, one of which is for the designed quantity of 7900 cubic yards for repository vault excavation and screening.

Both the contractor and the Government (including the contracting officer who initially addressed this dispute (FF 20)) analyze this issue, in part, as a matter involving a Government estimate. Neither has demonstrated the applicability of such an approach. The contract presents "designed quantities" as being based upon original design data which include the preliminary survey information, design assumptions, calculations, drawings, and the presentation in the contract (FF 8). The quantity--for excavation and screening--is not presented as an estimate of the total cubic yards (or as the actual total volume) of the vault to be excavated. Rather, the quantity is a fixed number to be used for payment purposes when multiplied by the cost per unit submitted by the contractor. The contract requires excavation to be approximately to the dimensions given, while recognizing that soil conditions may require some variation in the actual excavation. Such variables do not alter the method (and calculation) of payment.[1]

The contract specifies that the contractor will be paid the unit price in the contract for the stated quantity for this line item of "excavation and screening" (a separate line item of payment does not exist for excavation).[2] Pursuant to the methods of measurement clause, the quantity may be adjusted

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[1] The Government relies, in part, upon the contract's Variation in Estimated Quantity clause from the FAR, 52.212-11 (APR 1984) (AF at 58 (¶ F.2)). The record does not demonstrate the applicability of that clause, which relates to estimated quantities. At issue is the designed quantities method of payment and express provisions for adjustments under that clause (FF 8).

[2] This method of payment based upon designed quantities is distinct from payment for actual quantities excavated and/or screened, which would entail measuring the quantities excavated and/or screened. Such a cost-reimbursement type method of payment would relieve the contractor of many risks for variations in quantity. The contractor's interpretation treats this line item largely as if it were a cost-reimbursement item, which it is not.

for changes in the work authorized or if errors exist in the original design data used to determine designed quantities that cause a pay item total to change by 15 percent or more. (FF 8.) The clause establishes the standard for relief and the allocation of risks. Under this first basis for relief, which compares the vault dimensions and volume to the stated design quantity for excavation and screening, the contractor does not rely on changes in the work authorized. The contractor unnecessarily complicates its claim by asserting that Government negligence was involved in the calculations; the clause does not limit relief to instances when Government negligence is involved. In any event, no evidence of negligence has been presented. Given the clause, the focus must be on whether errors exist in the original design data.

The difference between the volume of the depicted vault (9463 cubic yards using the average end area method) and the stated designed quantity for excavation and screening (7900 cubic yards) does not, by itself, constitute a basis for entitlement to recovery. The views of the initial and successor CO (FF 20, 21), regarding the existence or not of a Government error, are not here dispositive, given the Board's de novo review.

The contractor fails to distinguish between "excavation" and "excavation and screening." The designed quantity is not represented as depicting the volume of the vault; the contract specifies that the topsoil is to be removed and stockpiled (FF 5, 6). Thus, the contractor's interpretation is at odds with the unambiguous language of the contract. The contractor has not demonstrated that an error exists in the calculation of the designed quantity.

Even if one equates "excavation" with "excavation and screening" for payment under line item 4 (FF 7, 8) and concludes that an error exists (because the quantity is not 9463 cubic yards), entitlement to relief under the clause demands a showing that a pay item total would change by 15 percent or more. Because the contractor has not shown its basis for pricing this line item of work, the record does not demonstrate that this line item total would have changed (or by how much).

Part of the failure of proof here is that the record does not establish contractor reliance on the 7900 cubic yards when pricing its bid.[3] The diagrams reveal the size of the vault. The contract specifies

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This line item was not identified for payment on a lump sum basis, which would place on the contractor many risks for variations in quantity. For example, the diagrams depict the dimensions of the vault and the specifications state the minimum slope requirements. The contractor could have been required to provide a lump sum price to complete the repository vault. The contractor would be limited in its ability to recover costs incurred in the completion of the vault. The Government's interpretation treats the line item as if it were a lump sum price, which it is not.

[3] Given the lack of proof regarding reliance on the 7900 cubic yard figure, the Board need not here resolve the question of the reasonableness of any such reliance. The reasonableness would be questionable for at least three separate reasons. Using the average end area method, one can calculate the volume of the vault from the diagrams--the result is 9463 (not 7900) cubic yards. Despite the order of precedence clause, the difference between the diagrams and the specifications

the number of cubic yards for payment purposes. The contractor may have utilized 9463 cubic yards in determining its pricing and allocated that amount to the 7900 cubic yards identified as the designed quantity. The record suggests (because the Government questioned and the contractor did not put in affirmative evidence to the contrary) that the contractor was aware of the actual volume of necessary excavation at the time of bidding (FF 10). Without reliance, the contractor has not demonstrated entitlement to relief, because there is no support for the conclusion that the pay item total would have changed.

The Board denies this aspect of the claim.

Vault slope

Downplaying the language of the designed quantities clause, the contractor relies upon theories of contract ambiguity and Government negligence to recover for what it describes as additional excavation to conform the slopes and dimensions of the vault to requirements of the liner manufacturer, and for the additional material it maintains it was required to install.

The contract is not ambiguous. The contractor is to excavate a repository vault in and over which material must be placed according to the manufacturer's directions (FF 4). The slope is presented as the minimum acceptable slope; the contract does not state that the slope shall be 1.5:1. However, that slope was used for design quantity calculations.

The contractor also has not demonstrated negligence. The contractor contends that the 1.5:1 slope is clearly unsafe on its face. A slope so clearly unsafe by a review of the diagrams would constitute a patent problem with the specifications with the risks falling on the contractor for failing to inquire.

While the contractor has demonstrated neither an ambiguity nor negligence, these claims are properly analyzed under the methods of measurement clause (FF 8). The Government maintains that the contract contains performance, not design, specifications. Contrary to the assertions by the Government, the contract requires the repository vault to be excavated to the approximate dimensions found in the diagrams (FF 3). Those dimensions underlie the design quantities used as the bases for payment. Under the methods of measurement clause, an error in those underlying assumptions could constitute a basis for altering the quantities.

The two slope-related claims are immediately resolved because the contractor has not demonstrated that the design was flawed. Although the liner selected by the contractor required a 2.5:1 slope, the record does not demonstrate that the designed slope was inappropriate for other contract-compliant liners or that other compliant liners could not be installed with an intermediate slope and less of an

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in the top dimensions of the vault, may cause one to make the calculations for cubic and square yardages based on vaults of each size. Finally, the designed quantity method of payment does not assure a one-to-one correspondence between the work performed and the line item quantity and unit price.

impact. (FF 15.) Moreover, by specifying that the vault dimensions are approximate and the slope is a minimum, the contract provides the contractor with the flexibility to change the slope and depth of the vault to comply with the liner manufacturer's requirements while most economically completing the vault. Had the contractor consulted the manufacturer before excavation, it may have simply decreased the length and width of the bottom rectangle while bringing the more gentle slopes within the vault of the same top dimension--this would provide sufficient volume for the contaminated material (at least 6600 cubic yards) and would reduce the total volume of excavation, keep the vault liner within the stated quantity, and not alter the vault cap quantity.

Proof is lacking on other aspects of the claims, as well. Those areas merit discussion because, in denying the claims, the CO relied upon bases not fully consonant with provisions of the contract or the facts put forward.

Volume

In four particular respects, the record fails to support the contractor's claim for payment for additional volume. First, the contractor selected the method to comply with the liner manufacturer's slope requirements. Backfilling or excavating deeper (with a smaller rectangle at the base) would have required less excavation than the contractor's method. Thus, the entire amount of excavation is not necessarily attributable to the changes in the underlying design assumptions. (FF 14, 15.) Second, the record does not demonstrate that the contractor screened any of the additional material (FF 15, 23). Thus, it appears inappropriate to compensate based upon the unit price for excavation and screening. Third, the record does not establish that the contractor based its $19 unit price on other than the actual volume excavated (FF 10). Fourth, because the record contains no quantifications of the contractor's costs or efforts, even if one assumes that the contractor reasonably had to excavate 1511 cubic yards not anticipated in pricing its bid, there is no support for the conclusion that the pay item total would change by 15 percent or more because of excavation alone.

Accordingly, the Board denies this aspect of the claim.

Liner and cap

In two particular respects, the record fails to support aspects of the contractor's claim for additional square feet of vault liner and/or cap. First, the contractor selected the method to comply with the liner manufacturer's installation requirements (FF 14, 15). Backfilling or excavating deeper would have lessened the impact of the change in side slopes on the square feet of vault liner and cap. Thus, although the contractor utilized more material for the vault cap than anticipated in the design (FF 17), the entire quantity the contractor seeks is not necessarily attributable to the changes in the underlying design assumptions. Second, regarding the liner, the record does not support the contractor's assertion that it utilized more liner than indicated as the designed quantity (FF 16).

Accordingly, the Board denies this aspect of the claim.

DECISION

The Board denies the appeal.

_____
JOSEPH A. VERGILIO
Administrative Judge

Concurring:

_____
EDWARD HOURY
Administrative Judge

Concurring with Separate Opinion:

_____
HOWARD A. POLLACK
Administrative Judge

Issued at Washington, D.C.
July 27, 1999

CONCURRING OPINION BY ADMINISTRATIVE JUDGE HOWARD A. POLLACK

I concur with the entirety of the opinion save the paragraph in the discussion which deems the language of the contract to be unambiguous regarding the distinction between "excavation" and "excavation and screening." I agree that the overall work required under the contract is clear--the contractor must excavate topsoil and excavate and screen the remainder. Also, I agree, because of the language dealing with pricing incidental items, that there is not a requirement to have a line item for pay for every activity required under the contract. However, the simple line item entry for "excavation and screening" could lead a bidder to conclude that the 7900 cubic yard figure represents the volume of the vault to be excavated. As the opinion points out, however, this contractor has failed to demonstrate that it so interpreted the contract or was reasonably misled. Accordingly, I would deny relief.