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Accounting and Information  
Management Division

B-281421

April 14, 1999

Mr. Robert J. Lieberman  
Assistant Inspector General for Auditing  
Department of Defense

Subject: Payment Processing: Validation of Receipt and Acceptance

Dear Mr. Lieberman:

This letter responds to your request for an interpretation of certain parts of Title 7, "Fiscal Procedures," of the GAO Policy and Procedures Manual for Guidance of Federal Agencies. Specifically, you asked whether it is acceptable (1) for disbursing officers to authorize payment without reviewing evidence transmitted directly by an authorized employee attesting to the receipt and acceptance of goods and services, (2) for disbursing officers to authorize payment after reviewing the vendor's invoice and vendor maintained delivery data without first reviewing evidence of receipt and acceptance by a government official, and (3) to verify receipt and acceptance after payment authorization based on review of a statistically selected sample of invoices in lieu of conducting prepayment verification.

Your staff stated that the request was initiated because your office was reviewing the propriety of the process currently used to authorize payments for certain fuel purchases. As described in your letter, the Defense Finance and Accounting Service (DFAS) and your office have taken different positions on these questions as they relate to the process for purchasing certain fuel as described later in our letter. To supplement the information in your letter, we contacted your staff, DFAS officials, and Defense Energy Support Center (DESC)<sup>1</sup> personnel to discuss the questions and your respective positions on this matter in more detail. DESC is the unit responsible for monitoring implementation of portions of that process which your questions cover. Since we did not test the DFAS system, our response only addresses your questions conceptually.

Essentially, your questions ask whether it is acceptable to authorize payment on a vendor's invoice for certain fuels purchased without reviewing documents showing a government employee's statement of receipt and then to verify documents showing such receipt on a postpayment basis using statistical sampling rather than 100 percent testing. Authorizing payment prior to verification of receipt is referred to as "fast pay" in Title 7. Although fast pay

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<sup>1</sup>Prior to January 16, 1998, DESC was formally known as the Defense Fuel Supply Center. DESC is a unit operating within the Defense Logistics Agency responsible for assisting DOD and other federal agencies in procuring fuel and other energy resources.

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GAO/AIMD-99-111R Payment Processing (DOD)

is permitted under certain criteria, the fuel purchases under the process you inquired about would not meet the criteria, given the error rate reported by your office is considered above an acceptable rate or where a particular purchase exceeds the fast pay limitation of \$25,000. Your office issued a report on vessel fuel acquisition<sup>2</sup> stating that during a 5-month period ending in January 1997, a 10-percent error rate was found in invoices for fuel purchases reviewed. Where the 10-percent error rate is considered above an acceptable error rate as determined by management of DFAS and DESC after careful analysis and after concurrence by the IG, fast pay procedures, notwithstanding the \$25,000 limitation, should be suspended until the error rate is reduced to an acceptable level.

Regarding sampling of invoices on a postpayment basis to verify receipt by a government employee as proposed but not yet implemented by DESC, Title 7 limits the sampling to invoices under \$2,500. When the purchase of these certain fuels exceed the \$2,500 limitation, verification of receipt of the fuels would be required. For invoices under the \$2,500 limitation, sampling should not be implemented until (1) the 10 percent error rate disclosed in your report is reduced to a level considered to be an acceptable error rate established by management and agreed to by the IG and (2) the actual error rate remains equal to or above the acceptable rate. The details of our response to your inquiry are discussed in the following sections.

#### **The Process Currently Established in Verifying Receipt and Acceptance by DFAS**

Your staff and officials from DFAS and DESC explained the existing process as follows. The DOD official responsible for receiving and accepting fuel on the government vessel, completes an order form prior to the fueling. The order requests a specified amount of fuel and type of fuel and also identifies the vessel, port (all fuelings under this process take place at a port), the vendor, the related contract identification, and the ordering official's name as well as other data. The official signs the order, provides the vendor a copy, and retains a copy. Before the fueling, the official is required to use a plastic card assigned to him or her to initiate a "MAGSTRIP" process.<sup>3</sup> (The card is referred to as a "MAGSTRIP card.") The official's government-issued MAGSTRIP card is scanned through an electronic device.<sup>4</sup> Information maintained in the electronic device includes the vendor name and identification, dock name and location, contract identification, and the date and time of fuel delivery. The

<sup>2</sup>DOD Contract Ship Fuels (Bunker Fuels) Acquisition Process, Office of the Inspector General, DOD, Report Number 98-141, May 29, 1998.

<sup>3</sup>The MAGSTRIP (magnetic strip) process is essentially an electronic information reading and sending process involving a special plastic card and a small electronic device. The card is passed through the device in a designated groove, manner, and direction enabling the device to (1) electronically scan information from the card, (2) send information electronically, and (3) print a hard copy document containing information.

<sup>4</sup>If the official does not have a MAGSTRIP card, as is the case on occasion, the official enters an account number by pressing the applicable digit symbols on the electronic device. However, since your request focuses on the MAGSTRIP process, we limited our response to that process.

MAGSTRIP card identifies the ordering official, the vessel, and information about the appropriation under which the purchase is to be charged. The electronic device also has a keyboard for the vendor personnel to manually enter information. After the fueling, information on the type, quantity, and unit price of the fuel delivered to the vessel as well as other information (such as discounts offered) is entered manually by vendor personnel. The MAGSTRIP process was designed and implemented to streamline the purchase of fuels and the related payment processes.

As explained to us, after the information is manually entered, the electronic device generates a hard copy document in duplicate which serves as a receiving report. That document contains key information scanned from the MAGSTRIP card, imbedded in the card reader, and manually entered data regarding the quantity, grade or type, and price of fuel; the date and location (port); the supplier's name or identification; the vessel identification; total price of the fuel; and the name of the official. The ordering official is required to sign the receiving report and the vendor and the official each retain a copy. Pursuant to the MAGSTRIP process, the official's copy along with the order is maintained on the vessel until it is forwarded to the base unit having operational control over the vessel. The electronic device used to scan the MAGSTRIP card belongs to the government but is in the possession of the fuel supplier at the fueling point.<sup>5</sup>

We were told that in the interest of expediting payment, the information from the electronic device is transferred to another system that allows the vendor to forward an invoice electronically to DFAS (Columbus, Ohio). The information conveyed electronically is supposed to include the same information on the previously mentioned order form and receiving report including the number of units (or gallons) purchased and the total price of the fueling. DFAS performs numerous electronic edits on the information received. The edits involve comparing the information on the invoice with information on DFAS' maintained files. The edits determine that the invoice is under a valid contract with the vendor for the purchase, that the contract is still in effect, the official was using a valid MAGSTRIP card, other details of the billing (such as the port, vessel, and fuel grade and quantities) are allowable under the contract, and that payment has not been previously authorized under that specific order or invoice. If the edits do not uncover errors or unauthorized items (such as, for example, an invalid MAGSTRIP card or contract), the invoice is authorized for payment.

DESC officials further explained that after payment, all paid invoices are tested against written receipt and acceptance documentation. On monthly or shorter intervals, DFAS sends the purchasing unit (those units having operational control over the vessels, for example, the Coast Guard, Navy, or Army) electronic reports showing each order number for which payment was made. For each paid item, the units are required to verify that a valid receiving report exists showing the officer's signature, quantities of fuel acquired, and other data. If

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<sup>5</sup>DFAS officials told us that the initial design of the MAGSTRIP process in DOD called for the electronic MAGSTRIP card reading device to be in the possession of the government, not the merchant supplier. However, because the battery pack powering the device could occasionally spark, it was removed to the suppliers' location for safety reasons.

discrepancies are uncovered, the units are required to notify DFAS within 30 days of the date of the report.

Initially when the MAGSTRIP system was designed, it called for DESC to test for receipt and acceptance of fuels on a sample basis, rather than testing all purchases. However, DESC officials told us that because the various agencies and units purchasing the fuel followed different processes in testing paid invoices for validity, 100-percent testing is being done until DESC believes that 100 percent testing is not necessary. DESC officials stated that sampling could be implemented (the 100-percent testing would no longer be necessary) when they believe that the procedures followed at the administrative offices of each customer completely and adequately verifies the items required to be verified.

### **Positions of DFAS, DESC, and Your Office**

As explained by your staff, each of your three questions involves the verification of receipt and acceptance of fuel delivered to sea vessels and the authorization of the payment being made to the vendor. Essentially, your questions ask whether it is acceptable to authorize payment on a vendor's invoice without review of documents supplied or generated by a government official attesting to the receipt and acceptance of fuel purchased, and then to verify receipt and acceptance on a postpayment basis using statistical sampling, rather than the traditional 100-percent testing.

DFAS and DESC officials' position is that receiving statements or reports completed by government officials need not be sent to or reviewed by the disbursing officer prior to authorizing payment. DFAS officials have stated that it is acceptable for the disbursing officer to sufficiently verify the invoice in two steps. First, the electronic invoices are subject to edit tests (previously discussed), which involve comparing certain information against information maintained on master files by DFAS. Second, subsequent to payment authorization, verification of receipt and acceptance is completed at the unit level (the unit having operational control over the vessel) where the signed receiving report is to be matched against the quantities appearing on the invoice. If discrepancies are found, units are to notify DFAS to offset subsequent invoices. DFAS stated that vendor invoices are intended to contain the same information appearing on the order form and the receiving report generated by the MAGSTRIP device at the fueling site, except for the official's signature. DFAS staff also cited a 1987 GAO decision<sup>6</sup> which they assert allows using vendor-generated information electronically submitted to suffice for payment authorization.

DFAS and DESC officials have stated that verification of receipt and acceptance after payment is permissible if overpayments, when occurring, are collected or credit is granted. DFAS officials pointed out that its continuing relationship with vendors allows them to offset any overpayments uncovered during the post-payment verification of receipt and acceptance from the vendors on subsequent invoices.

Regarding statistical sampling, DESC officials believe that a sampling process can be implemented if it is carefully planned and monitored. Although DESC currently reviews all

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<sup>6</sup>67 Comp. Gen. 72 (1987).

payments to verify receipt and acceptance, it is moving towards verification on a statistical sampling basis. DESC officials believe that sampling is acceptable provided that the sampling procedure does not indicate high error rates and that the sampling process is monitored to ensure that it is effectively implemented. Conversely, your office believes that (1) the information electronically submitted by the vendor to DFAS for payment is not sufficient by itself to authorize payment and (2) the risk of DFAS accepting and not detecting misrepresented or altered information is increased.

Your staff explained that the vendor controls the data in the MAGSTRIP process since the electronic device is in the possession of the vendor and that information created based on the fuel purchase can be accessed and modified before it is forwarded electronically to DFAS for payment processing. Your staff pointed out that consequently, altered data, whether it is altered intentionally or unintentionally, could be sent to DFAS for payment. Since the paper copies of both the order and receiving report completed by the vessel's official at the fueling site are forwarded by that officer at a later date, and then only to the unit having operational control over the vessel, at no time prior to payment authorization does DFAS verify that a government employee (1) generated the purchase order for the specific purchase or (2) attested to the receipt and acceptance. As your staff further stated, if altered data are forwarded to DFAS and remain within the contract limitations, DFAS will authorize payment since the electronic edits done before authorization will not identify that data were altered.

Having both (or either) of the government employee's generated purchase order and receiving report reviewed prior to payment authorization would reduce the risks of overpayments going undetected. Your staff emphasized that by allowing payment authorization to occur without this review, there is no independent verification (otherwise traditionally obtained from a review of a government employee's signed receiving report) on the vendor's statement of claims until after payment.

#### Technological Advances Could Enhance Internal Control and Data Integrity

The Federal Financial Management Improvement Act of 1996 requires that agencies implement and maintain financial management systems that comply with federal financial management system requirements. The Joint Financial Management Improvement Program (JFMIP) has issued a series of system requirements documents generally accepted as the systems standards by the federal sector to be followed by agencies. In its Framework for Federal Financial Management Systems, JFMIP envisioned systems with standardized information and electronic data exchange to eliminate manual processes, reduce the risks of data loss or errors, and eliminate manual reentry and interpretation.<sup>7</sup> In discussing technology in payment systems, Title 7 states that agencies should endeavor to establish automated processing techniques (including data interchange) and controls whenever feasible so long as the interests of the government are protected.

Title 7 also states that the use of automated signatures helps safeguard against errors and irregularities and ensures data integrity in electronic environments. To be effective, automated signatures must be (1) unique to the signer, (2) under the signer's sole control, and

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<sup>7</sup>Framework for Federal Financial Management Systems, JFMIP, January 1995, pp. 8-9.

(3) capable of being verified. Also, to help ensure data integrity, the signature must be linked to the data in such a manner that, if the data are changed, the signature is invalidated.<sup>8</sup> Because of the nature of electronic data, it is difficult to ascertain whether the data have been altered unless the signature is linked to the data in such a way that the signature verification process can detect data changes. Traditional systems based on passwords and identification codes (such as those using account numbers) usually do not meet these criteria. The National Institute of Standards and Technology (NIST)<sup>9</sup> has established procedures for the evaluation and approval of certain automated signature techniques<sup>10</sup> to ensure the integrity of the data and compliance with the previously mentioned criteria.

We believe that financial management systems will continue to improve and evolve to have the capabilities for automating the validation process before payment authorization. Invoices could be validated as a result of comparing the data on them with the information on purchase orders and receiving reports transmitted from multiple locations, such as from vendors (where a government employee transmits data electronically at a fueling dock, for example), from central offices of agencies, and from agencies' remote locations, including sea vessels. These systems should also have the capability of providing automated signatures that meet NIST requirements to ensure data integrity. When these systems have evolved and are operational, internal control will be enhanced, accuracy will be better assured, and data integrity will be improved at less cost. However, until these systems are implemented, automated processes must be supplemented with manual ones in order to provide assurances that the government's interest is protected.

Payment Authorization Without Review of Receipt Documentation Is Permissible Under Certain Criteria, But the MAGSTRIP Process May Not Meet the Criteria

A payment process whereby receipt and acceptance is verified after payment authorization is referred to as "fast pay." In following the MAGSTRIP program, DOD has implemented a fast pay process. As we have previously reported, agencies are generally permitted to implement a fast pay process<sup>11</sup> subject to several conditions and controls.<sup>12</sup> Among the pertinent conditions and controls are the following.

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<sup>8</sup>71 Comp. Gen. 109 (1991).

<sup>9</sup>Under the Computer Security Act, NIST is responsible for establishing standards for federal computer systems that process sensitive but unclassified information.

<sup>10</sup>These procedures are contained in the Federal Information Processing Standard (FIPS).

<sup>11</sup>Letter to the Honorable Charles E. Grassley commenting on the proposed DOD Reform Act, B-279620, March 31, 1998.

<sup>12</sup>Office of Management and Budget Circular A-125, Prompt Payment, December 12, 1989, and the Federal Acquisition Regulation, (FAR) part 13.

- The fast pay process is limited to payments for goods or services where there is a continuing relationship with reliable vendors that will facilitate the recovery of overpayments.
- Fast pay process suppliers who will be paid under the procedure agree to replace, repair, or correct supplies not conforming to purchase requirements.
- The agency having the fast pay process must have a system in place to identify suppliers who have a history of abusing the fast payment procedure.
- The fast pay process is subject to a general limitation of \$25,000.

Also, the agency should be able to take advantage of prompt payment discounts or to effect other economies in order to implement fast pay.<sup>13</sup>

We have two concerns with DOD's MAGSTRIP process. First, many military sea vessels require large volumes of fuel. If quantities obtained during a refueling result in a purchase exceeding the fast pay limitation of \$25,000, (established by the Office of Management and Budget Circular A-125, "Prompt Payment," and the FAR, part 13), authorization of payment prior to review of documentation prepared by a government official (such as a receiving report) would not be permitted. Notwithstanding the \$25,000 fast pay limitation, the 1987 GAO decision<sup>14</sup> cited by DFAS as support for the MAGSTRIP process is not applicable. That decision did not cover the subject of authorizing payments without government documentation showing receipt and acceptance. The decision applied only to the elimination of gasoline company delivery tickets, called "credit card charge tickets," and addressed only the question of whether charge card invoices were required to include attached delivery tickets.

Second, although it is permissible to implement payment systems where the government payment officer authorizes payment based on vendor-submitted invoices under a fast pay process, procedures must ensure that the risk of losses are minimized to acceptable limits. DOD's Office of Inspector General (IG) issued a report on vessel fuel acquisition<sup>15</sup> and reported that about a 10-percent error rate (based on the number of invoices) was found as a result of missing or inaccurate data on the order forms and receiving reports for vendors' bills reviewed under the MAGSTRIP process for the period September 1996 through January

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<sup>13</sup>Payment Processing (Energy): Negative Confirmation of Receipt (GAO/AIMD-97-77R, April 24, 1997) and Payment Processing (HUD): Validation After Payment on a Sampling Basis (GAO/AIMD-98-8R, October 21, 1997). Each of these reports resulted from agency requests that were supported by detailed analysis of cost savings associated with implementing fast pay.

<sup>14</sup>See 67 Comp. Gen. 72 (1987).

<sup>15</sup>DOD Contract Ship Fuels (Bunker Fuels) Acquisition Process, Office of the Inspector General, DOD, Report Number 98-141, May 29, 1998.

1997.<sup>16</sup> The IG also reported that DFAS and DESC were working to reduce or eliminate the errors.

If DFAS and DESC have successfully reduced the error rate to a lower level within a tolerable lower limit as determined by management and agreed to by the IG in order to minimize the risk of overpayment, authorizing payment based on vendor-transmitted data is permissible, provided purchased amounts do not exceed the fast pay limit of \$25,000. If, on the other hand, the error rate continues to be high, posing a higher than acceptable risk of overpayments, payment authorization based on vendor invoice data should be suspended until such time as the error rate is reduced to be within established tolerable limits.

Regarding statistical sampling, Title 7 requires that when it is combined with fast pay, as DOD has proposed but not yet implemented, the sampling plan must provide for several items. Among the most important items, the plan must provide for (1) invoice examination to be commensurate with the risk to the government,<sup>17</sup> (2) sampling of all invoices under \$2,500<sup>18</sup> not subject to complete examination, (3) effective monitoring to ensure that the risks to the government remain within tolerable limits, and (4) a continuing relationship with the vendor such that the risk of loss is minimized. Combining fast pay with a statistical sampling procedure to verify receipt increases the risks of overpayments compared to verifying receipt on all payments. Nevertheless, we believe that these risks would be acceptably mitigated if a plan containing the items previously listed were effectively implemented.

Most likely, invoices received under MAGSTRIP purchases would not qualify for statistical sampling. Since vessel fuel purchases are for large quantities, most invoices submitted for payment under the MAGSTRIP purchase process would exceed the sampling limit of \$2,500. Also, regardless of the \$2,500 limitation, where a 10-percent error rate is not within the tolerable range, implementation of the statistical sampling process should be delayed until DFAS and DESC have reduced the 10-percent error rate reported by the IG to a rate acceptable to both management and the IG.

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<sup>16</sup>The IG reviewed 1,257 payments under the MAGSTRIP process and found 131 with incorrectly completed ordering or receiving forms. The results of the payments reviewed were not extrapolated or inferred to a universe of payments or dollar amounts for the year.

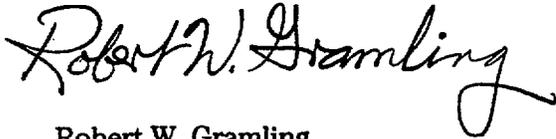
<sup>17</sup>In developing a sample plan, agencies should make sure that their proposed procedures will produce savings while adequately protecting the government's interest. Savings would be achieved when the combined costs of (1) examining the sample and (2) projected losses due to undetected errors on invoices not examined are less than the cost of examining all invoices. Through analysis, the plan must identify a tolerable error rate (the point at which or below which savings occur), the number of invoices to select for examination, and the selection method.

<sup>18</sup>Agency heads are authorized by law (31 U.S.C. 3521(b)) to establish statistical sampling programs for examination of vouchers in support of their payment authorization subject to Comptroller General limitations, which are currently set at \$2,500.

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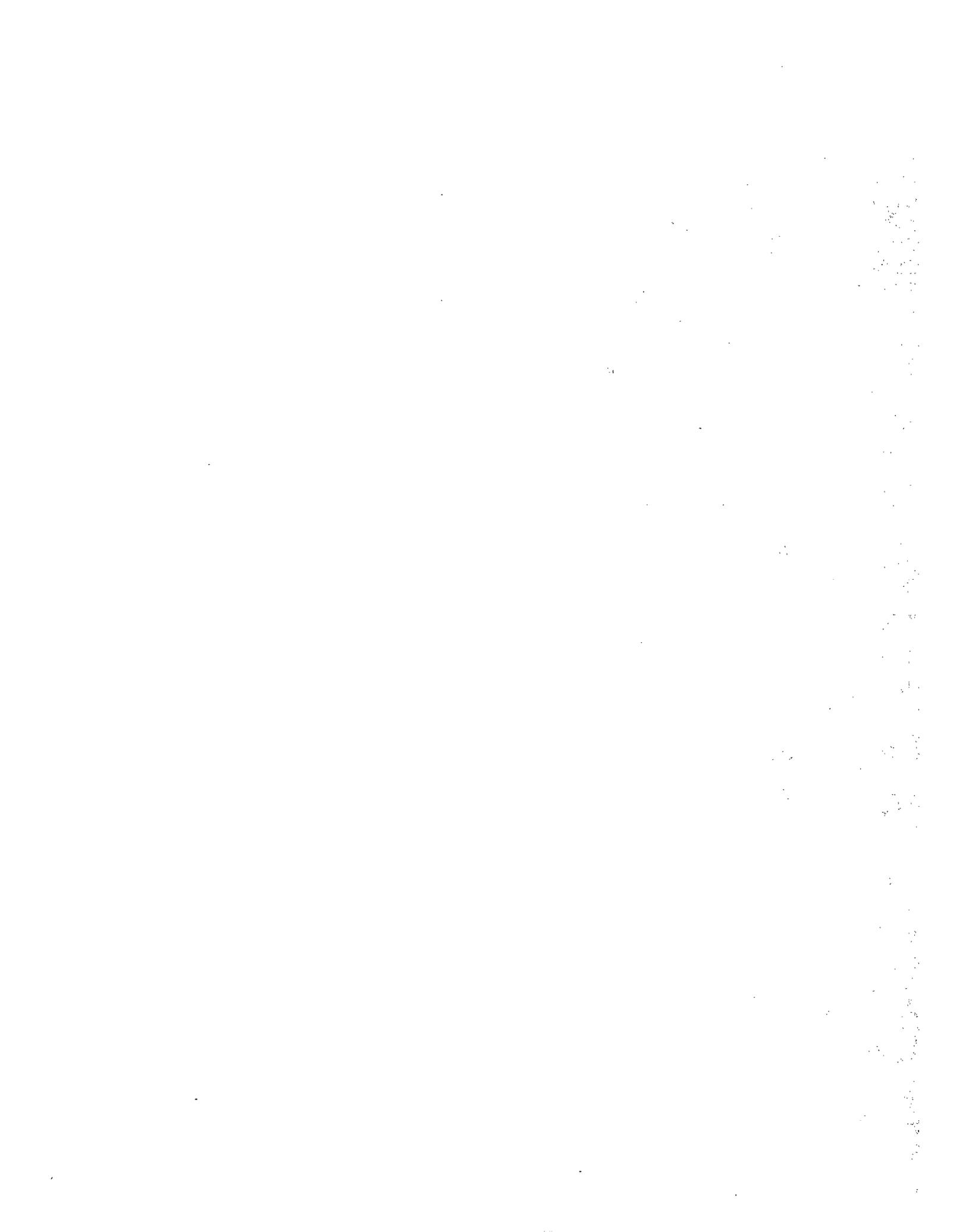
The contents of this letter were discussed with Lieutenant Colonel Thomas P. Toole, Mr. John Gannon, and Mr. David Leising of your staff as well as DFAS and DESC officials. We hope our comments are helpful. If you have any questions or would like to discuss these matters further, please contact me or Bruce Michelson, Assistant Director, at (202) 512-9406.

Sincerely yours,

A handwritten signature in cursive script that reads "Robert W. Gramling". The signature is written in black ink and is positioned above the typed name.

Robert W. Gramling  
Director, Corporate Audits  
and Standards

(922258)



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