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*UNITED STATES  
GENERAL ACCOUNTING OFFICE*

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Lessons In Management:  
Problems In Petroleum  
Procurement And Distribution  
In Southeast Asia

Department of Defense  
Agency for International Development

Millions of dollars were lost in distributing petroleum products to U S allies in Southeast Asia. Poor management and ineffective control caused improper payments, illegal fuel diversions, overstated requirements, and unrecovered in-transit losses.

Although U S involvement in Southeast Asia has diminished, the lessons of this experience can be applied to present and future commodity distribution programs directed by the Department of Defense and the Agency for International Development.

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UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D C 20548

LOGISTICS AND COMMUNICATIONS  
DIVISION

B-163928

1 To the Secretary of Defense and the  
Administrator, Agency for International  
2 Development

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In 1970 we reported that there were major weaknesses in the handling and control of petroleum products in Southeast Asia. To determine if management controls had improved or if large fuel losses still were occurring, we made a followup review. We also wanted to know if new contracting arrangements necessitated by the 1973 Arab oil embargo adequately protected United States interests

This report discusses problems and waste associated with the distribution of petroleum products in Southeast Asia. We encourage you to bring these matters, including the lessons learned from this experience and the need for greater adherence to established management controls, to the attention of personnel at all management levels.

We are sending copies of this report to the Senate and House Committees on Government Operations, Appropriations, and Armed Services; the Senate Committee on Foreign Relations; the House Committee on International Relations; the Director, Office of Management and Budget; and the Secretary of State.

*R B Rothwell*

for F. J. Shafer  
Director

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ABBREVIATIONS

AID	Agency for International Development
CIP	commercial import program
DAO	Defense Attache Office
DFSC	Defense Fuel Supply Center
DOD	Department of Defense
GAO	General Accounting Office
MEDTC	Military Equipment Delivery Team-Cambodia
OASD	Office of the Assistant Secretary of Defense

GENERAL ACCOUNTING OFFICE  
REPORT TO THE SECRETARY  
OF DEFENSE AND THE ADMINISTRATOR,  
AGENCY FOR INTERNATIONAL  
DEVELOPMENT

LESSONS IN MANAGEMENT:  
PROBLEMS IN PETROLEUM  
PROCUREMENT AND DISTRIBUTION  
IN SOUTHEAST ASIA  
Department of Defense  
Agency for International  
Development

D I G E S T

Long-established policies and procedures for management were not fully nor properly carried out at the operating levels of the Department of Defense and Agency for International Development in Southeast Asia. Serious problems resulted

U.S. involvement in Southeast Asia has been drastically reduced. This report will have little effect, therefore, on remaining United States activities in that area. However, important lessons can be learned from errors made at that time and place and applied to the Government's management of commodities, programs, and activities elsewhere. (See ch. 7.)

Problems resulting from the breakdown of controls and poor management practices include the following.

Improper disbursements amounting to at least \$7.8 million were made for petroleum products in Vietnam. They consisted of a \$3.4 million advance payment, made in anticipation of a contract which never materialized, and \$4.4 million expended for lubricants which were never received

After GAO brought these matters to the attention of Department of Defense officials, the advance payment was collected and action was begun to recover the payments for materials not received. (See ch. 2.)

Illegal fuel diversions and excessive losses were found in Vietnam, Khmer Republic, Laos, and Thailand (See ch. 3.)

Large amounts of fuel were lost during in-transit operations. The Department of Defense or the Agency for International Development did not act to recover or reduce these losses, because allowable loss tolerances were excessive, not included in contracts, or computed incorrectly. Even though insurance premiums far exceeded loss claims, the Agency for International Development did not consider the feasibility of self-insurance (See ch. 4 )

Inflated requirements data was used in determining the petroleum products needed for the Khmer Republic and Vietnam Armed Forces. Equipment amounts were exaggerated. Fuel consumption and usage information was inaccurate. About \$4.1 million of the \$11 million allocated for petroleum products in the Khmer Republic during fiscal year 1975 was in excess of actual needs (See ch. 5 )

There were contracting, accounting, and funding deficiencies. Standard clauses protecting U.S. interests were omitted from contracts, and contract administration was weak in Vietnam. Accountability over products held in contractor storage in Vietnam or provided by the Department of Defense in Saigon for the Khmer Republic was lost.

Advance payments were made for procurement of petroleum products, but no efforts were made to discount the payments or use some other means to offset the benefits gained by the contractors, or banks, from early use of the funds. (See ch. 6.)

## CHAPTER 1

### INTRODUCTION

In 1970 we reported that fuel losses had, or might have, occurred in varying degrees in Southeast Asia countries. We concluded that there were major weaknesses in petroleum operations throughout the area. Because several years had elapsed since that report was issued, we wanted to know (1) whether large losses were still occurring and (2) if there had been any improvements in petroleum management controls. In addition, there had been considerable changes to the petroleum distribution system in Southeast Asia as a result of the Arab oil embargo in the fall of 1973, and we wanted to determine whether U.S. interests were being protected under new contracting arrangements which resulted from the embargo.

The Defense Supply Agency's Defense Fuel Supply Center (DFSC) is responsible for the integrated material management of bulk petroleum products within the Department of Defense (DOD). DFSC contracted for fuel requirements of the Army, Navy, and Air Force, including military assistance needs, and arranged for ocean transportation from supplier's refineries to storage terminals. After the embargo, contracts for military assistance program petroleum support were negotiated with commercial suppliers in the name of the host countries of Vietnam and Laos. Petroleum products for the Khmer Republic, also called Cambodia, were included in the Vietnam contract. U.S. forces in Thailand continued to use DFSC-provided products to meet their requirements.

The military assistance program providing petroleum support in Vietnam and Laos was directed by the Defense Attache Office (DAO) in Saigon and Vientiane, respectively. In the Khmer Republic, the U.S. Military Equipment Delivery Team-Cambodia (MEDTC), was established to direct the procurement of military support items and to monitor the receipt, distribution, and end use of this materiel.

From December 1973 through April 1975, disbursements of over \$160 million were made for petroleum products through these programs. In addition, U.S. forces in Thailand received at least 700 million gallons of fuels during fiscal years 1973 and 1974, including fuel for military sales to Thailand of 242 million gallons.

The Agency for International Development (AID) provided funds under its commercial import program (CIP). This program essentially entails United States financing of commodity imports into the recipient country's economy. CIP funds for

the import of petroleum products for commercial use in Vietnam and the Khmer Republic totaled nearly \$106 million in fiscal years 1973 and 1974. Approximately \$162 million was authorized for the fiscal year 1975 program. Although it provided the funds, AID was not a direct party to the contracts for petroleum products.

#### SCOPE OF REVIEW

Our review consisted primarily of examining (1) petroleum contracts in Southeast Asia and contract administration procedures and practices to determine whether U.S. interests were adequately protected, (2) accounting procedures for verification of contractor billings to insure that everything paid for was actually received, and (3) management procedures and controls to determine whether they were adequate to disclose or prevent fuel diversions and excessive losses.

We worked in Thailand, Laos, Vietnam, Hong Kong, and the Khmer Republic. We contacted officials of the American Embassy, AID, and DOD in these countries. We also held discussions with host country military officials and representatives of the major oil companies. Our work was coordinated with the internal audit staff of DOD and AID, and we made extensive use of their audit reports. In addition, we worked at various DOD offices in the Washington, D.C., area.



## CHAPTER 2

### IMPROPER PAYMENTS

DAO, Saigon, disbursed about \$136 million between December 1973 and November 1974 to procure petroleum products for the military assistance programs in Vietnam and the Khmer Republic. A system of management control, including internal review, was not implemented to insure that the disbursements were proper. As a result, improper payments of at least \$7.8 million were made.

At the time of the Arab oil embargo, the Chief of the DAO Petroleum Section was designated to represent both the United States and Vietnamese Governments in negotiations with the oil companies for petroleum products. He also was given the responsibility for insuring that the needs of the Khmer Republic were also fulfilled by the contracts. Concurrently, the responsibilities of the Petroleum Section were expanded to cover all aspects of petroleum management. Previously, the section was not responsible for contracting or involved in payments for products received.

The section was not organized to take on the added responsibilities, and DAO did not take the steps necessary to develop adequate accounting systems or to establish internal controls over the operations of the section. Instead, procedures and controls which had existed under DFSC management were discarded.

The Section Chief was responsible for (1) determining requirements, (2) negotiating, awarding, amending, and modifying contracts for petroleum and related services, (3) developing supply plans and ordering materials, (4) verifying and accounting for products received, (5) arranging for disbursement of funds, and (6) controlling the disposition of funds by telling the bank where to send the funds and to which accounts they should be credited. All of these functions were done without adequate supervision and management review.

The authority for preparing, approving, and certifying payment vouchers was virtually the only responsibility not delegated to the Petroleum Section. The DAO Comptroller's office had this responsibility but prepared the payment vouchers solely on the word of the Petroleum Section Chief. The requests for funds were not accompanied by invoices, receiving reports, and/or other appropriate supporting documentation.

The lack of a system of checks and balances resulted in improper disbursements. Six payments totaling \$4.4 million

were made for lubricants which were without documented evidence of ever having been received. Also an advance payment of \$3.4 million was made under irregular circumstances in anticipation of the award of a contract which was later not awarded to the firm receiving the money.

We brought the \$4.4 million in payments to the attention of the U S Ambassador to Vietnam and the Defense Attache, who took affirmative actions. Efforts to recover the payments for the lubricants not received are continuing. We also advised Army Division DAO officials of the \$3.4 million advance payment. As a result, a refund was pursued and obtained from the firm and deposited with the United States Treasury.

### CONCLUSIONS

We recognize that DAO was responding to an abnormal situation when it expanded the role of the Petroleum Section at the time of the oil embargo. Nevertheless, it was necessary for DAO to insure that the responsibilities were properly executed and controlled.

Internal controls, management reviews, and supervision still were required. Also, although the overall responsibility rested with the Petroleum Section, other DAO offices should have participated in such functions as preparing contracts and determining requirements. If it was not feasible to separate responsibilities, internal controls should have been strengthened, rather than eliminated, as was done. And, of course, payments should not have been certified without adequate supporting documentation.

## CHAPTER 3

### FUEL DIVERSIONS

Illegal fuel diversions and excessive losses were found in each of the four countries included in our study. Despite known difficulties in controlling these highly pilferable commodities, physical security and petroleum management received relatively little emphasis, especially in the Khmer Republic and Vietnam. Adequate internal reviews, aimed at preventing or disclosing irregular transactions or fraudulent activities, were not being made. In Thailand, efforts to prevent the diversion of fuel from tank truck deliveries were only partially effective.

#### KHMER REPUBLIC

Millions of dollars in fuels were provided to the Khmer Armed Forces since MEDTC was established in January 1971. However, despite the knowledge that theft and corruption were rampant among the Khmer military, MEDTC did little to monitor fuels usage until early in 1974. As a result, the diversion of nearly \$1 million in aviation fuels went undetected for many months.

In December 1972 a survey by DOD representatives of petroleum operations in the Khmer Air Force contained a recommendation that MEDTC reconcile Khmer Air Force historical flying hours and consumption data to verify fuel allocations. It was over a year after the recommendation that MEDTC completed such an analysis. In March 1974 Khmer Air Force flying hour records and fuel consumption were compared for January and February 1974. This analysis disclosed that 498,000 gallons of aviation gasoline reported to be consumed was not justified by the flying hour records.

An audit by the Office of the Assistant Secretary of Defense (OASD)--requested by the American Ambassador--was made for October 1973 through February 1974. The audit revealed that the amount of 933,000 gallons of aviation gasoline, valued at \$310,849, reported to be consumed was not supported by the actual hours flown by the Khmer Air Force. The Khmer Government was requested to, and did, reimburse the United States \$310,000 for the diverted fuel.

Our analysis, expanded to include jet fuel as well as aviation gasoline and covering the 13-month period October 1973 through October 1974, disclosed that, in addition, 1.5 million gallons of fuel, valued at about \$637,000, had been diverted. In December 1974 the Ambassador requested reimbursement from the Khmer Government for this added amount of

diverted fuels To our knowledge this amount was not received from the Khmer Government before the end of U S. involvement.

In August 1974, in an attempt to decrease diversions by the Khmer Air Force, the Khmer Air Force's Fuel Depot was closed, and an oil company was awarded a contract to provide all into-plane and into-drum refueling services at Pochentong Airport for Khmer Air Force, Air America, and U.S military aircraft

While MEDTC was slow in identifying and correcting the aviation fuel diversion problem, the action finally taken was fairly effective in reducing losses.

### VIETNAM

Our work was limited in Vietnam due to the final Communist offensive of the war However, from the beginning, our audit was coordinated with OASD audit efforts The OASD audit was made between September 1974 and January 1975 and disclosed some instances of fuel diversion by Vietnamese forces. Our work disclosed that requirements were overstated to the point that the illegal diversion of fuel did not appear to hinder military operations

### Diesel fuel

OASD auditors found that diesel fuel recorded as used by the power generator plant at the Cat Lai Vietnamese Navy Intermediate Support Base exceeded reasonable consumption by as much as 12,000 of the 38,000 gallons issued to the plant during June through August 1974 A power survey made at the request of the OASD auditors showed that the actual power production was about 75 percent of total possible output. Their consumption analysis concluded that between 3,252 and 12,000 gallons of diesel fuel could not have been consumed in power generators as recorded and that the powerplant consumption records could have been altered to cover the diversion

### Aviation fuels

The OASD audit staff also found that fuel was being diverted from military aircraft. United States personnel and Vietnamese Ministry of National Defense personnel observed the following at the Tan Son Nhut Airbase on December 6, 1974

- Draining aviation fuels from parked aircraft and transferring the fuels to motorcycles parked on the ramp

- Numerous containers of various sizes and shapes being filled with jet fuel by Vietnamese Air Force personnel and carried from the ramp area.
- Indifference of guards positioned throughout the ramp area One guard was observed three times picking up cans of jet fuel drained from an aircraft and carrying the cans into his guard shack

#### Actions taken

The Vietnamese Armed Forces Joint General Staff was aware of the illegal diversion of fuels It issued many directives and notices on the subject, however, these efforts appeared to have little effect The Vietnamese Navy identified fuel valued at about \$1.3 million as being diverted for personal use between December 1973 and October 1974. Some of the individuals involved received disciplinary action and were required to reimburse the Vietnamese Navy. This money (about \$148,000) was never returned to the U.S officials to replace the diverted fuel.

We found no indication that DAO attempted to obtain reimbursement from the Vietnamese Armed Forces for these or other fuel diversions, such as was done in the Khmer Republic.

#### LAOS

Reports of fuel diversions in Southern Laos were identified in an AID marketing study made during February to May 1974. According to the report, petroleum products and other goods were being transshipped to Khmer Rouge and North Vietnamese military units. The report also indicated that considerable trade in commodities, including gasoline, took place between merchants in the Lao Government areas and those in Pathet Lao-controlled areas

According to the report, witnesses reported that in February 1974 at least 450 drums of gasoline went to 3 market towns located on the Khmer side of the Mekong River Also, the report stated that witnesses indicated military vehicles were used to ship 2,600 to 5,300 gallons of gasoline each month to the Khmer Rouge

The report does not indicate the total volume or the source of the fuels being black-marketed However, with the apparent heavy involvement of the Lao military, there is a probability that some, if not all, of this fuel was diverted from petroleum products provided through U S. assistance programs.

## THAILAND

Fuel diversions in Thailand have been a major problem, however, the exact amount of the diversions had not been quantified. All the petroleum products delivered to up-country bases in Thailand were made by commercial oil companies in tank trucks or rail tankers. U.S. operating personnel uncovered ingenious methods used by drivers for stealing products from tank trucks. These methods included, among others

- adjustable fuel level markers,
- false welds on nuts securing manifold valve handles and dome latches,
- false bottoms or compartments in tanks,
- removal of product and replacing with a lower grade product or with water, and
- bribes to operating personnel

The Military Assistance Command, Thailand, issued regulations and procedures for the acceptance of fuel and inspection of tank trucks in Thailand. We tested the procedures and found them to be adequate. However, poor application of the procedures by base operating personnel aided and abetted the diversion of fuels. On the basis of tests made at Korat Royal Thai Air Force Base, May 13 to 15, 1975, we concluded that most, if not all, the fuel listed on delivery tickets arrived at the base, but some left the tank farm in the manifold system or false compartments of tank trucks.

During our test, we found one truck with a false compartment estimated to hold 127 gallons of fuel. This truck had delivered fuel to Korat on the previous day and had undergone final inspection without the false compartment being detected. Also, we found that manifolds were not always being drained at the final checkpoint before release of tank trucks. Failure to drain the manifolds could result in fuel diversions of 10 to 25 gallons--or more--a truck.

Overall, during the 3-day test losses were 1,259 gallons or 420 gallons a day. In contrast, losses averaged 2,083 gallons a day for the 30 delivery days before our test. Losses in the amounts that occurred during our test can be attributed to evaporation and other factors which are unavoidable in handling and storing volatile products.

## CONCLUSIONS

A variety of factors contributed to the illegal fuel diversions. Monitoring and reviews of Khmer and Vietnamese Armed Forces fuel consumption by MEDTC or DAO on a regular basis could have identified the major diversions almost immediately. Greater attention to requirements computations also would have helped. In Thailand adherence to prescribed procedures for receiving and inspecting tank trucks was needed.

## CHAPTER 4

### IN-TRANSIT LOSSES

Management control over the physical movement of petroleum products was weak, in varying degrees, in the countries included in our review. As a result, millions of gallons of fuel were lost during in-transit operations. DOD or AID did not take action to recover or minimize these in-transit losses because (1) an incorrect methodology was used to determine recoverable losses, (2) allowable losses set forth in contracts exceeded widely used and recognized standards, and (3) other contracts lacked allowable loss provisions

Furthermore, AID did not monitor commercial import program-financed marine insurance premiums, claims filed, or the proceeds recovered on petroleum product loss claims. Although the insurance premiums far exceeded loss proceeds, AID did not consider the feasibility of self-insurance. AID also did not know if all proper claims were filed or the disposition of the proceeds from claims that were filed

### TYPES OF LOSSES AND ALLOWABLE LOSS STANDARDS

The types of losses incurred when handling petroleum can be classified as in transit, operating, and determinable

- In-transit losses are product lost incidental to shipment.
- Operating losses are product lost through terminal operations. This includes normal evaporation and handling losses.
- Determinable losses are product lost or destroyed from such causes as tank overflows, spills, pipeline breaks, fire, and unrecoverable tank bottoms

Some losses are unavoidable when handling and storing volatile products, such as petroleum. As a result, international and DOD allowable loss standards have been established as follows.

- For ship tanker, barge, tank car, and tank truck in-transit shipments, up to 0.5 percent of quantity shipped
- For pipeline in-transit shipments, up to 0.25 percent of the quantity shipped.



--For operational losses, up to 0.5 percent for jet fuels and gasolines and up to 0.25 percent for diesel.

Losses over allowable standards require substantiation through both physical observation and investigation and validation of documents and records as to authenticity.

INCORRECT METHODOLOGY USED TO DETERMINE  
IN-TRANSIT LOSS ALLOWANCES

DOD's Manual on Procedures for the Management of Petroleum Products states losses are allowable only to the extent product is actually lost. Also, the manual requires that losses be computed immediately after receipt of product.

In Vietnam and the Khmer Republic, DOD and AID calculated in-transit losses for each product by averaging all shipments over a designated period. By averaging, a large loss on one shipment can be offset by small losses or gains on other shipments. Under the shipment-by-shipment method, major discrepancies have to be accounted for as they occur with the contractor held accountable for any loss in excess of the allowable loss.

An analysis of the in-transit losses under CIP in Vietnam disclosed that AID incurred additional costs of over \$100,000 for the 6-month period ended December 31, 1974, by accepting the averaging method rather than the shipment-by-shipment method in computing ocean losses. The latter method would have detected large losses on individual shipments.

ALLOWABLE LOSS ALLOWANCES EXCEEDED  
RECOGNIZED STANDARDS

Tela Khmer was the agency responsible for importing all petroleum products into the Khmer Republic for both the military and the civilian sectors. Tela Khmer permitted a 1.5-percent in-transit loss allowance on all fuels except aviation fuel, which had a 1.7-percent loss allowance. These allowances were three times the recognized standard. Furthermore, loss claims were not always filed, even when the in-transit losses exceeded the inflated loss rate specified in the contracts.

Khmer military

Excess in-transit losses for Khmer military shipments for October 1973 through September 1974, using the inflated allowance, amounted to 56,839 gallons valued at \$23,308, however, using the recognized standard, losses were 218,764

gallons valued at \$93,589

Claims amounting to \$94,000 should have been submitted for these losses, but about \$70,000 was not claimable because delivery contracts specified the inflated allowances

#### Commercial import program

We also compared AID in-transit fuel losses for October 1973 through September 1974. Unrecoverable losses in excess of the recognized standard amounted to 173,476 gallons valued at \$77,000, using the averaging method. Under the shipment-by-shipment method, unrecovered losses would have been higher

#### LACK OF PROVISIONS FOR IN-TRANSIT LOSSES

DOD-sponsored contracts for Vietnam and Khmer Republic fuels procured from two suppliers in 1974 lacked provisions making the suppliers responsible for excessive in-transit ocean losses. We estimate that from February through September 1974, 209,000 gallons of fuel, valued at about \$76,000, were lost in excess of DOD standards when using the shipment-by-shipment method of computation.

The 1975 contract of one supplier contained an in-transit loss provision of 0.5 percent, however, the provision allowed for the averaging of shipments rather than computing losses on a shipment-by-shipment basis. The second supplier was not awarded a contract in 1975.

#### NEED FOR AID TO CONSIDER THE FEASIBILITY OF SELF-INSURANCE

In 1972 we reported to the Congress on the Government's general policy on self-insurance. We concluded that since the Government was financially able to absorb losses, it should consider self-insurance. Because of the wide variety of situations involved, the decision to self-insure must be made on a case-by-case basis.

AID is authorized to finance marine and war risk insurance on AID-financed commodities, such as petroleum products. Marine risk insurance indemnifies the cargo. War risk insurance covers the hull, crew, and crew-related items.

AID officials did not maintain information on insurance and insurance proceeds. We had to rely on the local oil importers in Vietnam and the Tela Khmer in the Khmer Republic for this information.

In Vietnam each CIP importer contracted separately for the AID-financed marine and war risk insurance. Information from the importers showed that (1) one of the importers paid insurance costs of \$844,000 during 1973 and 1974, (2) another importer paid an estimated \$78,000 in premiums for the last 6 months of 1974, and (3) a third importer paid \$161,000 for marine risk insurance alone for the last 6 months of 1974. All three importers in Vietnam advised us that there were no claims against this insurance.

In the Khmer Republic, insurance expenses were \$634,000 during April 1972 through December 1974. Losses reimbursed were about \$103,000.

#### AID MONITORING OF INSURANCE PROCEEDS

In November 1973 the AID Mission authorized the Khmer Government to use marine and war risk insurance proceeds to purchase commodities on the AID Eligible Commodity List. If these proceeds were not used in a reasonable period of time, the funds were to revert to AID.

The AID Mission informed us that they did not maintain records on claims or proceeds and did not know if proceeds were reported to the AID Controller or how the proceeds were used. We were told that the proceeds could be monitored by reviewing the licenses issued to procure commodities from such proceeds, but this was never done. Information on the use and amount of proceeds was available from Tela Khmer, but we do not have assurances that all eligible claims were filed nor do we have assurances that all proceeds collected had been turned over to the account of the U S Government.

From April 1972 through December 1974, Tela Khmer received four loss proceeds totaling about \$103,000. AID regulations require that proceeds in excess of \$6,000 be reported to the AID Controller within 15 days of receipt. We found no evidence that this had been done although three of the rebates exceeded that amount.

#### CONCLUSIONS

In our opinion, both DOD and AID could have strengthened their management control over petroleum products in transit. In most cases, existing regulations and procedures provided adequate control mechanisms; however, implementation was weak and internal reviews did not bring these weaknesses to the attention of top management.

With regard to petroleum contracts, losses should have been computed on a shipment-by-shipment basis, loss allowance

percentages should have been in accordance with recognized standards, and loss allowance provisions should have been included in all contracts. This would have enabled DOD and AID to receive substantial price adjustments from the suppliers

In the insurance area AID should have considered self-insurance instead of AID-financed insurance premiums for petroleum products provided under CIP. We recognize that other factors need to be addressed, but our review clearly disclosed that premium expenses far outweighed insurance proceeds. In cases where AID did not self-insure, it should have required its Missions to develop information systems to monitor insurance expenses, claims, and use of insurance proceeds to protect U S interests

## CHAPTER 5

### OVERSTATED REQUIREMENTS

Inflated requirements data was used in determining the petroleum products needed for the Vietnam and Khmer Republic Armed Forces. Equipment amounts were exaggerated and fuel consumption and usage information was inaccurate. We estimate that in the Khmer Republic alone, about \$4.1 million of the \$11 million programed for fiscal year 1975 was in excess of actual needs.

#### USE OF INVALID EQUIPMENT AMOUNTS

We reported several times that adequate accountability over equipment had not been achieved in Vietnam. For years DOD had been using on-hand equipment figures it knew were unreliable, but it considered the information to be the best available. In January 1975 a document was finally completed which DOD believed established adequate accountability. When more accurate information became available DAO did not use these figures to compute fiscal year 1976 requirements. Nevertheless, it acknowledged that the new information was more accurate.

We compared the figures used in computing the requirements with those that should have been used. Our analysis of 7 types of vehicles, representing 95 percent of the Vietnamese Army vehicles, showed that the amounts used to compute requirements were overstated by about 5,500 vehicles. This would have caused an estimated 3.6 million gallon overstatement of annual needs for petroleum products.

In the Khmer Republic, the motor gasoline and diesel fuel requirements MEDTC projected exceeded those the Khmer Armed Forces projected. Since MEDTC did not have documents available to analyze the difference, we tested the monthly reports for November 1974 the Khmer used to compute its needs. We identified 965 occurrences in which (1) two or more units were requesting fuel for the same vehicle, (2) a unit asked for fuel more than once for the same vehicle, or (3) one or more units requested fuel for a vehicle which was listed as a combat loss or as being sent to disposal. The effect on requirements was an overstatement of fuel for 1,046 vehicles which did not exist.

#### Operational readiness of equipment

In Vietnam when DAO determined fuel needs, it applied a standard operational readiness rate of 70 percent to all vehicles in the Vietnamese inventory. This resulted in

overstated requirements because the rate should have been applied only to vehicles in the operational fleet instead of to all vehicles. The standard rate was based on the assumption that only 70 percent of the vehicles in the operational fleet would be in use at any given time.

The calculation base incorrectly included equipment in support depots, in a standby status, or at offshore rebuild facilities. When placed into service these items would in many instances replace equipment for which fuel already would have been programmed for the entire year.

MEDTC used a readiness rate of 80 percent for Khmer vehicles--10 percent higher than DAO used in Vietnam. Because this rate appeared high, we checked the readiness of 838 vehicles

--512, or 61 percent, would start and did not display outward appearances of being inoperative, such as no wheels.

--265, or 32 percent, were deadlined, would not start or had been lost in combat or turned into disposal and not dropped from units records.

--61, or 7 percent, would not start because they had no fuel in the gas tank and therefore we could not determine whether the vehicle was operable.

Khmer units did not report all deadlined or inoperative equipment, although they were required to do so. Only 40 of the 265 inoperative vehicles had been reported to the Khmer Director of Petroleum. Some of the vehicles had not been operative for many months.

#### QUESTIONABLE CONSUMPTION AND USAGE FACTORS

Fuel consumption and equipment use information that would provide reliable requirements planning input was not accurately maintained in Vietnam or the Khmer Republic. OASD auditors' work indicated that requirements were based on questionable information.

#### Vietnam

In 1973 OASD auditors reported that consumption information that ultimately would provide reliable requirements planning input was not maintained or was incomplete. Their followup in 1974 disclosed that this information was still inaccurate.

Their test of aircraft fuel consumption showed considerable variances in amounts recorded as issued to aircraft and amounts recorded as received by aircraft. For example, issue documents indicated over 25,000 gallons had been issued to a specific aircraft, but the aircraft's records indicated only 6,700 gallons had been received--a variance of over 18,000 gallons. Tests of defueling documentation revealed that documents had never been prepared in some cases and the documents which had been prepared contained insufficient information to be of use.

Furthermore, the OASD review indicated that recorded flying hours were inflated. Vietnamese Air Force records for 1 month indicated that flying hours for six aircraft tested were inflated by an overall 16.7 percent.

In other tests, the OASD auditors reviewed usage requirements input for power-generating equipment at communications sites.

- Sixteen sites that had generators were excluded from requirements computations and other sites for which requirements did not exist were included.
- In several instances both the Vietnamese Army and Navy had programmed diesel fuel for the same powerplant.
- Of 47 sites included in the requirements input, 17 contained generators scheduled only for standby operation. However, fuel requirements were computed on the same basis as prime generating units.

Another test at a power-generating facility revealed that fiscal year 1975 requirements determined by U.S. officials were based on more generators than were being used and on a higher usage rate than was being experienced. As a result the projected requirements exceeded needs by over 6,000 gallons of diesel fuel a month.

#### Khmer Republic

In the Khmer Republic consumption and usage data used to determine fuel requirements for all types of equipment was unrealistic.

MEDTC did not base fiscal year 1975 fuel requirements on an actual study, and documents used to derive and support the requirements were destroyed in anticipation of an emergency evacuation of Phnom Penh. However, we were

provided a copy of a fuel allocation study prepared in May 1974 by the Khmer Director of Petroleum which was used by MEDTC to determine monthly allocations.

The allocation study included consumption and usage criteria which we were able to compare with other criteria available. We calculated requirements on the basis of U.S Army standard consumption rates and Vietnamese Armed Forces usage and operational readiness rates for the same types of equipment. Our analysis indicated that the consumption and usage criteria used in the study resulted in inflated requirements of about 10 million gallons of fuel worth about \$4.1 million for fiscal year 1975

### CONCLUSIONS

DOD personnel in Vietnam and the Khmer Republic did not implement the type of management control system needed to limit the procurement of petroleum products to the quantity required by the armed forces of these countries. Exaggerated equipment amount information and inaccurate usage and consumption data resulted in spending U S assistance funds to provide excessive levels of petroleum products leading to actual and potential product diversions

Responsible U.S. personnel should have been more aware of the importance of maintaining accurate property accounting records and developing realistic usage and consumption data for forecasting future requirements. We recognize that much of the recordkeeping was done by host country personnel. Sufficient tests of the records should have been made so that erroneous data would have been disclosed and procurements could have been adjusted accordingly



## CHAPTER 6

### CONTRACTING, ACCOUNTING, AND FUNDING PROBLEMS

The lack of adequate contracting, accounting, and funding procedures or practices contributed to problems discussed in prior chapters and other problems discussed here.

#### PROCUREMENT AND CONTRACT ADMINISTRATION

As a result of the 1973 Arab oil embargo, the oil companies would not deal directly with the United States. DOD employees still were responsible for contract negotiations and administration, but they acted as representatives of the host governments rather than as direct representatives of the United States although the latter financed the procurements

In Laos DFSC procedures basically continued to be followed. In contrast the DAO office in Saigon deviated from DFSC procedures in procuring petroleum products for Vietnam and the Khmer Republic and the results were chaotic

Armed Services Procurement Regulations were not followed, and standard contract clauses were omitted covering audit reports, product specifications, allowable in-transit loss tolerances, price deescalations, and recovery of overpayments

Individuals in the DAO Petroleum Section in Saigon responsible for procurement and contract administration had minimal experience and training in contracting and fuels management. Nevertheless, the assistance of contracting, legal, and other specialists in other sections of DAO Saigon was not obtained. In addition, DAO management gave little attention to supervising and reviewing the activities of the Petroleum Section. Similarly, the individual in the Khmer Republic responsible for fuel management had minimal experience and training and received little supervision

#### ACCOUNTABILITY

DAO and MEDTC in Vietnam and the Khmer Republic, respectively, did not establish sound accounting systems. Neither required the timely submission of accounting reports and information to insure that adequate accountability was maintained. In contrast, DAO in Laos had sufficient records and information to maintain accountability

DAO in Saigon did not have complete information on actual inventories of Vietnamese Armed Forces petroleum products held in contractor storage tanks. In addition,

DAO in Saigon did not maintain a subsidiary ledger on petroleum products procured for and issued to the Khmer Republic Armed Forces. MEDTC maintained a ledger, but its reliability was questionable because DAO did not provide MEDTC with complete or timely information.

As a result, when the Khmer program terminated, U S personnel in both countries were uncertain as to how much of an estimated \$1.5 million worth of petroleum products actually remained in Vietnam awaiting transshipment to the Khmer Republic. It was also uncertain whether DAO spent \$178,728 of Khmer program funds.

### FUNDING

Regulations concerning the disbursement of appropriated funds were not followed in Vietnam and the Khmer Republic. In addition, the least preferred method of financing--advance payments--was used to procure petroleum products for Vietnam, Laos, and the Khmer Republic.

In June 1974 DAO made a \$5.5 million advance payment to a contractor for future deliveries of bulk fuel to Vietnam. Over \$3 million was in excess of the amount required by the contract, and no other contract or written agreement was in effect to authorize the additional advance or detail its use. As discussed in chapter 2, another advance payment of \$3.4 million was made in anticipation of a contract which never materialized.

In the Khmer Republic, AID purchased 208 tank-pump units with \$1.2 million of CIP funds. Both military and civil needs were considered in arriving at the requirement for the 208 units. Although legislation expressly prohibits spending economic assistance funds for military purposes, AID did not ask DOD to share the costs.

Advance payments totaling \$161 million were made in connection with the procurement of petroleum products. We estimate that the interest cost for the advance payments amounted to over \$1.2 million. We found no indication that any efforts were made to discount the payments or use some other means to offset the benefits gained by the contractors or banks from early use of the funds. Also, in Vietnam the payments were made without the benefit of supporting documentation, such as contracts, supply plans, and proforma invoices.

### CONCLUSIONS

Many of the problems could have been averted if established DOD, AID, and/or good common sense policies and

procedures had been followed and if adequate internal reviews had been made. An adequate accounting system could have been set up, and supervisory and technical assistance could have been provided personnel responsible for entering and administering petroleum contracts.

Advance payments should have been based on valid obligations, and compensating benefits for the advances should have been received by the Government. Military assistance funds should have been used for the tank-pump units required for military purposes.

## CHAPTER 7

### WHAT WENT WRONG

The question which comes to mind is what went wrong to permit the activities we have reported to occur. The answer is simple--long-established policies and procedures were not fully or properly implemented at the operating levels of DOD and AID in Southeast Asia. Lessons learned in the past were apparently forgotten or ignored.

United States involvement in Southeast Asia has diminished. Consequently, any recommendations directed toward the programs reviewed would be meaningless. Nevertheless, we believe important lessons can be learned from errors made in the management of petroleum in Southeast Asia and applied to the management of present and future commodity distribution programs administered by DOD and AID.

To avoid these problems in future programs, the basic elements of a management system should be followed. An effective system involves setting standards, goals, or objectives, evaluating performance against these standards or goals; and taking corrective action where needed.

The system should be based on well-defined policies and clearly stated procedures, clear assignments of responsibility and delegations of authority, appropriate personnel qualifications, and an effective internal audit program.

Responsibility for assigned duties and functions should be appropriately segregated between authorization, performance, recordkeeping, custody of resources, and review, to provide proper internal checks on performance and to minimize opportunities for carrying out unauthorized, fraudulent, or otherwise irregular acts.

All duties and functions should be done under proper supervision. Also, the duties and functions should be subject to adequate review under an effective internal audit program to provide information on whether they are done effectively, efficiently, and economically; management policies are adhered to, applicable laws and prescribed regulations are complied with, and unauthorized, fraudulent, or otherwise irregular transactions or activities are prevented or discovered. Internal review can supplement and reinforce other controls which, for practical reasons, may not contain desirable automatic checks and balances.

Following the 1973 Arab oil embargo, DOD deviated from the good management techniques incorporated in the integrated petroleum management system established under the auspices of DFSC. Management suffered, particularly in Vietnam and the Khmer Republic. Appropriate internal controls were not implemented and management reviews were not made. Accounting systems were inadequate and U S interests were not properly protected.

In Vietnam from October 1973 onward far too much authority and responsibility was placed within the Petroleum Section of DAO to insure adequate protection of U S interests. While we recognize the oil embargo caused a tremendous upheaval and disruption in petroleum management, we cannot accept this as an adequate explanation and/or justification for the lack of prudent management and adequate managerial review.

Under no circumstances does prudent management permit one individual or small group of individuals to control all aspects of any transaction without adequate review by higher management. Yet, this is exactly what DAO management allowed to happen. In small organizations where it is not feasible to separate responsibilities, internal controls should be strengthened rather than eliminated as was done in Southeast Asia.

This report is confined to petroleum products, but adequate management controls are needed for any commodity, program, or activity. Accordingly, we encourage the Secretary of Defense and the Administrator, Agency for International Development, to bring the matters discussed in this report, including the lessons learned from this experience and the need for greater adherence to established management controls, to the attention of personnel at all management levels.

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