UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

LOGISTICS AND COMMUNICATIONS
DIVISION

AUGUST 1, 1980

B-199558

The Honorable Harold Brown
The Secretary of Defense

Dear Mr. Secretary:

Subject: Management of Cold Storage Facilities Needs Improvement (LCD-80-95)

Our study of the management of Defense-controlled cold storage facilities showed that improvements are needed if efficient and effective use of the facilities is to be achieved. We found that cold storage facilities were underutilized or improperly used.

We believe better utilization of military cold storage space can be achieved by using available capacity to store stocks of mobilization rations presently held under refrigerated conditions in commercial warehouses. Large savings are possible if available military cold storage space is used for this purpose.

COLD STORAGE FACILITIES

A cold storage facility is a warehouse or part of one that can provide storage for perishable foods at temperatures ranging from -10 to 60 degrees Fahrenheit. Other items, such as film, batteries, medical and dental supplies, and mobilization rations also are placed in cold storage to protect them from deterioration and to extend their life. A cold storage facility has freeze and chill space and processing and mechanical areas.

Almost every military installation within the Department of Defense has a cold storage facility. As of January 31, 1980, the military services had 333 cold storage facilities in the continental United States and abroad. In terms of size, 130 facilities had more than 10,000 square feet. The

cold storage facilities contained 5.5 million square feet of space in total and were distributed as follows.

Service	No. of facilities	Gross square feet (millions)
Army	126	2.4
Navy	91	2.1
Air Force	116	1.0
Total	333	5.5

In addition, the Defense Logistics Agency stores 87 million pounds of mobilization rations at 15 commercial warehouses throughout the continental United States. The cost to store these rations is about $1.2 million annually and is increasing.

COLD STORAGE FACILITIES ARE UNDERUTILIZED OR IMPROPERLY USED

We visited 10 cold storage facilities and identified 8 with underutilized refrigerated space. Four of the facilities also had improperly used refrigerated space. Our findings are summarized below.

Facility	Underutilized space	Improperly used space
Tobyhanna Army Depot	Yes	Yes
Aberdeen Proving Ground	"	"
Lakehurst Naval Air Engineering Center	"	"
Dover Air Force Base	"	"
Fort Dix	"	No
Fort Indiantown Gap	"	"
Fort Belvoir	"	"
Norfolk Naval Supply Center	"	"
Bayonne Defense Subsistence Office	No	"
Cheatham Annex Defense Subsistence Office	"	"

The following examples illustrate the problems we identified. Tobyhanna Army Depot has a 62,202 square foot cold storage facility, one of the largest in the Department of Defense. The facility was underutilized and improperly used. About 10,000 square feet of space was filled with telephone wire and industrial gas cylinders, neither of which required refrigerated storage. The Defense Audit Service had previously reported in June 1978 that 18,000 square feet was occupied by material that did not require refrigeration. We were told that the telephone wire had been in cold storage for 10 years. The wire was being removed during our visit to the facility.

Aberdeen Proving Ground has two connecting cold storage facilities containing 9,331 and 12,754 square feet. They have a total of seven chill rooms and two freeze rooms. The facilities were underutilized and improperly used to the extent that consolidation of legitimate goods would free the 9,331 square foot facility for other use. Items that should not have been stored in the cold storage facility included commissary store items and meat bones awaiting disposal.

Fort Indiantown Gap has a 17,540 square foot cold storage facility containing five chill rooms and two freeze rooms. We found that three chill rooms and one freeze room were shut down for minor repairs and the other rooms were only partially filled. The facility's mission is to provide food for regular military units and national guard and reserve units who train there. We were told that the cold storage facility would be used more during training periods but not to its full capacity.

Fort Dix has a 27,000 square foot storage facility containing 10 chill rooms and 3 freeze rooms. We found the facility underutilized and in poor condition. This facility, which was once used for storage purposes for feeding as many as 30,000 troops, is currently being used to feed 11,000.

FACILITIES COULD BE USED FOR MOBILIZATION RATIONS

Large savings would result if underutilized and improperly used space was used to store mobilization (combat) rations presently stored in commercial warehouses.

The Defense Logistics Agency, through the Defense Personnel Support Center (DPSC), provides food for the men and women of the Armed Forces and their dependents. DPSC also has the

responsibility for buying, storing, and distributing mobilization rations. Although mobilization rations are considered nonperishable items that do not require refrigeration, they are kept in cold storage to retard deterioration and to extend their life.

The rations would deteriorate in 2 years under dry storage conditions. By placing them in cold storage, their useful life is extended to 5 years. The rations in cold storage are rotated periodically before spoilage occurs and are replaced by new stocks. Thus, there is a continuing need for refrigerated storage space.

As stated previously, DPSC stores the mobilization rations at 15 commercial warehouses around the country at a cost of $1.2 million. The 87 million pounds of rations would occupy 600,000 square feet if stored two pallets high. Obviously, if the rations are stored higher the number of square feet required will decrease.

The potential savings by storing mobilization rations at military installations would be sizable. For example, 1.6 million pounds of mobilization rations could be stored in the 10,000 square feet vacated by telephone wire and gas cylinders at Tobyhanna Army Depot. The resultant savings in commercial storage costs would be $273,000 over a 5-year period.

Similarly, the 27,000 square foot facility at Fort Dix could store 4.4 million pounds of mobilization rations. We estimate that the savings in commercial storage costs would be $678,000 over a 5-year period. Fort Dix has the added advantage of being adjacent to McGuire Air Force Base, which has a global cargo mission.

As a final example, the 9,331 square foot facility at Aberdeen Proving Ground could store 863,000 pounds of mobilization rations. The resultant savings in commercial storage costs would be $129,500 over a 5-year period.

We computed our savings by considering storage and one-time handling costs of mobilization rations presently stored commercially by DPSC. We did not include rehabilitation and support costs which would affect the ultimate savings achievable and which would have to be considered if an economic analysis were performed.

ATTEMPTS TO OBTAIN DEFENSE SPACE HAVE BEEN UNSUCCESSFUL

The Defense Logistics Agency has generally been unsuccessful in its efforts to obtain cold storage space from the military services. We question the validity of some of the reasons cited for retention.

Defense policy is to make optimum use of existing military facilities to help minimize overall storage and distribution costs. The facilities should be used in the most efficient and effective manner during peacetime, even if they are retained in standby for mobilization. Use of facilities of Defense components as a whole should be considered before expanding or building new ones. Use of commercial warehouses is permitted when in-house storage facilities are not available to meet established requirements. Military components are required to gather, maintain, and exchange storage data to ensure visibility of available storage space.

DPSC routinely asks the military services if they have suitable Government storage space available before contracting out with commercial firms. With one exception, the reply from the services has been negative. In June 1979 the Marine Corps Logistics Base, Albany, Georgia, offered two storage facilities of 5,500 square feet each to DPSC on the basis that DPSC fund the cost to make these facilities operational. The facilities, in poor condition, were closed. DPSC felt the repair costs could be amortized over the long use of the facility, making it less expensive than commercial sources. DPSC funded the repair of the facilities at an estimated cost of $130,000.

On December 21, 1979, DPSC again asked the military services if refrigerated storage and warehousing services were available. DPSC had initiated procurement of 22.4 million pounds of a new mobilization ration and was expecting deliveries to begin in June 1980. On February 4, 1980, DPSC was advised that the military services had no additional refrigerated warehouse space.

Within the time frame of DPSC's request for refrigerated storage space and the military services negative response, our site visits disclosed the underutilized or improperly used cold storage facilities. We asked Tobyhanna Army Depot officials if the space used to store telephone wire and industrial gas cylinders could be released for mobilization rations. The

officials stated that the space could not be released because (1) the area where the wire was stored was needed for a possible increased dry cell battery workload and (2) the area where the cylinders were stored had a low ceiling height of only 15 feet.

We asked the commodity manager about the battery workload and were told that no immediate increase in workload was anticipated. With regard to the stacking height of pallets for mobilization rations, DPSC provided us information which indicated that the height would be 11 feet if the pallets were stored 3 levels high, which is well below the 15 foot ceiling. Therefore, the reasons stated by the Tobyhanna officials should not preclude the use of the space for storing mobilization rations.

We explored the feasibility of storing mobilization rations in the cold storage facility at Fort Dix. Current plans are to demolish the facility after a smaller facility, now under construction, is completed. Fort Dix officials said they would be receptive to DPSC using the existing facility if it does not increase their budget. DPSC officials stated that they would be remiss in not exploring the use of the Fort Dix facility or any other military facility brought to their attention. DPSC would fund the cost of rehabilitating facilities in disrepair if an analysis showed it was economical to the Government.

CONCLUSIONS

Our review showed that military cold storage facilities, which by their nature are high energy users, are underutilized and improperly used. One way available space could be used more efficiently and effectively is by storing mobilization rations at the facilities. Although the Defense Logistics Agency has inquired into the availability of space for this purpose, the military services have for the most part, responded negatively to the request. The Defense Logistics Agency has a continuing need for refrigerated space for mobilization rations and the use of Government space in lieu of commercial space would save millions of dollars.

Routine inquiries into the availability of refrigerated space in the military services have not been very successful. Separate management of the cold storage facilities by the military services has not been conducive to the easy identification and quick response on the availability of refrigerated space.

The military services also have been reluctant to release available space because of inherent fears of requiring refrigeration for future needs.

Defense officials with whom we discussed our findings agreed that the matters merited further consideration. However, most officials were reluctant to acknowledge any advantages to storing mobilization rations at military installations. Although regulations require optimum use of storage facilities, they expressed economical concerns such as location, condition, and size of these facilities. They maintained that if an economic analysis was performed at each location, many facilities would require extensive rehabilitation that might not be cost effective. An additional concern was who would fund facility rehabilitations if an economic analysis showed it was cost effective to do so.

We recognize that every cold storage facility with excess capacity will not be suitable for the storage of mobilization rations because of such factors as age, condition, location, size, and rehabilitation costs. Presently, however, Defense officials do not know the extent to which suitable facilities are available. We therefore believe, that given the potential for Government savings by storing mobilization rations at underutilized military facilities, that a more extensive use of such facilities should be pursued and explored by an economic analysis or a similar comparative cost study.

RECOMMENDATIONS

We recommend that you direct the military services to make a concerted effort to identify available refrigerated space and provide a comprehensive report to the Defense Logistics Agency. The information reported should include the amount of space and usage, the condition of the facility, the cost to maintain and repair the facility, and any plans to replace and demolish the facility.

We also recommend that you authorize the Defense Logistics Agency to make periodic visits to military cold storage sites to verify the accuracy of the reports and to observe if the facilities are used properly and to capacity. If conditions warrant such action, the Defense Logistics Agency should conduct studies to determine if a facility is suitable for storing mobilization rations or to identify the most efficient and effective use that can be made of the available space.

As an alternative, you may want to consider establishing a central manager who would have worldwide cognizance over cold storage facilities and have absolute control over the use, allocation, maintenance, repair, and replacement of refrigerated space.

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As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement of actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to the Director, Office of Management and Budget; the Director, Defense Logistics Agency; the Secretaries of the Army, Navy, and Air Force; and the Chairmen of the appropriate congressional committees.

Sincerely yours,

R. W. Gutmann
Director