



UNITED STATES GENERAL ACCOUNTING OFFICE
 REGIONAL OFFICE
 9226 FEDERAL BUILDING, SIXTH AND ARCH STREETS
 PHILADELPHIA, PENNSYLVANIA 19106

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June 6, 1975

Rear Admiral C. Bruce Smith, Commander
 Defense Personnel Support Center
 2800 South 20th Street
 Philadelphia, Pennsylvania 19101

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Dear Admiral Smith:

The U.S. General Accounting Office is conducting a nationwide review at military and civil installations for the purpose of identifying opportunities to improve energy conservation practices. The purpose of this letter is to advise you of the results of our review at the Defense Personnel Support Center (Center).

Energy Consumption

Energy consumption reports show that the Center has been successful in reducing its energy consumption. The table below compares energy fuel consumption in fiscal years 1974 and 1975 with the corresponding quarters in the base fiscal year 1973. The base year data was adjusted to recognize increased consumption resulting from a Factory Modernization Program.

Quarter	Percent increase (decrease) over same quarter in fiscal year 1973					
	Electricity		Natural gas		Gasoline	
	FY 74	FY 75	FY 74	FY 75	FY 74	FY 75
1	16.4	1.0	0	(7.6)	(41.8)	(42.5)
2	(8.8)	(14.3)	(24.4)	(9.4)	(54.7)	(50.3)
3	(18.7)	(12.6)	(12.7)	(5.0)	(33.8)	(47.5)
4	(36.3)		(9.7)		(31.4)	

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The increased electrical consumption during the first quarter of fiscal year 1974 was attributed to improved industrial lighting and air conditioning installed during the Factory Modernization Program and unseasonable hot weather which required more air conditioning than anticipated. The first quarter fiscal year 1975 increase in electrical consumption was due to an increase in workload in the clothing factory.

Energy Conservation Measures

We observed that your installation has taken a number of actions to reduce energy consumption, including:

- Reducing lighting intensity in hallways and aiseways by removal of light bulbs or fluorescent tubes.
- Turning off motors for air handling equipment during nonduty hours.
- Adjusting the janitorial service hours to have most of the work performed during regular business hours.
- Installing preset thermostats and switches to regulate heating and lighting.
- Lowering hot water temperatures.
- Adjusting the comfort cooling and heating temperatures to require less energy for operation.
- Consolidating activities to vacate spaces or buildings so that utilities could be reduced or eliminated.

In our opinion, these energy conservation measures have resulted from management's active support, publicity of the energy conservation program, and employees cooperation. However, there is one area where greater savings may be achieved. This matter is discussed in the following section.

Need for an Engineering Study In the Factory Area

During our review, we took meter readings of the lighting intensities in the factory work areas at the Center. We found that the clothing factory has some areas where there is excessive lighting. The foot candles in these areas are significantly in excess of the lighting standards contained in the Federal Management Circular 74-1, and the standards established by the Illumination Engineering Society.

The Federal Management Circular notes that during working hours, overhead lighting shall be reduced to 50 foot candles at work stations, 30 foot candles in work areas, and 10 (but not less than 1) foot candles in nonwork areas. Our tour of the factory disclosed that in some areas there were two levels of lighting, i.e., lights over the work area and individual lights at the machines. We observed shipping areas with 50 foot candles and aisle space with 200 foot candles, storage areas with 170 foot candles, and a machine shop with 200 foot candles.

We have been advised that the clothing factory has recently gone through a lighting and air conditioning modernization program which was completed about the time the energy crisis started. Reduced lighting may be difficult to achieve in view of the modernization program; however, we recommend an engineering study be made of the lighting currently being used to determine areas where lighting can be reduced to conserve energy. We understand the factory is currently being billed for electricity on a square foot basis and the Facilities Engineering Division is in the process of installing an electric meter for billing the factory. The use of an electric meter for billing will point out the actual cost of electricity and the recommended engineering study should assist in reducing lighting to conserve energy and reduce costs.

Errors in Statistical Reports

Our review of Defense Energy Information System (DEIS) reports showed errors on the amount of fuel reported as used. The errors appeared to be clerical in nature and apparently came about when consumption data was transcribed from supporting records.

The DEIS provides for monthly reporting of natural gas and electricity consumption, and weekly reporting of gasoline consumption. We examined the supporting documents for the monthly reports for the period February 1974 through March 1975, and the weekly reports for the months of February and March 1975.

The following table shows by types of fuels, the number of reports reviewed and the number with errors.

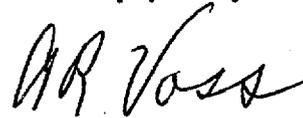
<u>Frequency of reports</u>	<u>Type of fuel</u>	<u>Reviewed</u>	<u>Number of reports</u>	
			<u>Overstated</u>	<u>Understated</u>
Monthly	Natural gas	14	1	3
Monthly	Electricity	13	-	2
Weekly	Gasoline	8	1	5

Some of these errors were material; for example, one of the natural gas reports was overstated by 14 percent and other reports were understated by 4 to 22 percent. To eliminate or reduce the errors in the DEIS reports, we recommend a supervisor validate the fuel consumption data before it is included in the DEIS report.

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We appreciate the cooperation and assistance given to us by the Facilities Engineering Division and the other Center offices we contacted. Your comments on the matters discussed in this letter would be appreciated.

Sincerely yours,



Allen R. Voss
Regional Manager