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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON REGIONAL OFFICE
 FIFTH FLOOR
 803 WEST BROAD STREET
 FALLS CHURCH, VIRGINIA 22046

JUL 8 1975

Mr. John L. Galuardi
 Regional Administrator, Region 3
 General Services Administration
 7th and D Streets, SW.
 Washington, D.C.

Dear Mr. Galuardi:

This is the second in a series of letters we are sending you addressing energy conservation in each of five installations reviewed in the Washington D.C. area. This letter concerns the Department of Agriculture headquarters complex in the 14th Street and Independence Avenue area.

We recognize energy conservation measures which have been taken at the Agriculture headquarters complex and are pointing out areas for potential further improvement.

ENERGY SAVINGS ARE BEING ACHIEVED

The President's goal for energy reduction at Government installations for fiscal years 1974 and 1975 was 7 and 15 percent, respectively, over the base of fiscal year 1973. As shown below, this goal is being exceeded at this location.

Period	Electricity (Kilowatt hours)	Steam (1,000 lb.)	Natural gas (1,000 cu. ft.)	Total (billions) of BTU's)	Percent decrease in BTU's from FY 1973
<u>First 3 quarters</u>					
FY 1973	34,458,810	159,404	9	621.12	-
FY 1974	29,230,420	124,495	445	512.8	17.4
Fy 1975	24,206,080	134,936	229	468.7	24.5
<u>Full year</u>					
FY 1973	47,700,360	187,089	13	813.3	-
FY 1974	37,907,920	159,659	523	662.5	18.5

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The above figures were developed from information contained in various documents and from interviews and were adjusted to take out the electricity used by METRO construction. We were informed that the fluctuation in gas usage is due to its utilization by USDA laboratories.

There were several conservation measures which contributed to achieving the energy reduction goals.

--The temperature range for heating the hot water in the hot water heating system was lowered from 130 degrees - 190 degrees F to 110 degrees - 160 degrees F.

--Approximately 43,000 fluorescent tubes were removed.

--Heating systems previously under continuous operation were shut down by 6 p.m.

The Federal Management Circular also set a goal for assigning parking spaces to employees in a manner that would encourage carpooling, conserve energy, and improve and enhance environmental quality through a reduction of vehicle miles traveled by employees.

We noted the goal of assigning no more than 10 percent of the available parking spaces to executive personnel and persons who work long or unusual hours has been achieved.

Factors hampering further conservation

The steps taken in saving energy in these buildings are to be commended. However, we have also observed some conditions that hamper further energy reductions.

Heating system

The steam heating system in the auditors' building is obsolete and in need of repair. We learned that the system was originally designed to heat large rooms which have since been sectioned and had ceilings lowered. We found radiators that could not be turned off because of inoperable valves and were told that pipes were in disrepair, allowing a lot of steam to escape. Consequently, many rooms had windows open or air-conditioners on to help neutralize the resulting excessive heat.

GSA Region 3 officials informed us that requests for funds to correct this situation are being delayed until a decision is made on whether the building will be razed for freeway expansion. We noticed, however, that there were several instances where radiators could be turned off and were not, even though room temperatures were in the 70's and windows were open. (FMC 74-1 guidelines call for a 65 degree - 68 degree range.) We believe officials responsible for energy conservation should look for these situations and, when appropriate, remind employees of their responsibilities in this regard.

In our inspection of the south and administrative buildings we noticed several stairwells, vestibules, and halls with excessive heat, some with temperatures near 80 degrees. One stairwell was 92 degrees. The chief plumber noted that this was due to worn radiator valves and that new valves are being installed as GSA is able to obtain them. We noted one instance, however, where a new valve was turned on to the highest temperature setting-- with the stairwell having a temperature of 84 degrees. GSA personnel told us that these valves needed to be on early in the morning to bring the stairwell and hall temperatures up to an acceptable range, and that it would require too much extra staff time to turn them all on and off on a daily basis. Perhaps a reasonable compromise could be reached by locking the valves at a lower temperature setting.

We also noticed that the vestibules in the south building had excessive heat--ranging from 71 degrees - 84 degrees. GSA Region 3 officials told us that they had previously questioned the need for heating these vestibules at all, and we believe that this issue should be given further consideration by your office in light of the current energy conservation needs. Similarly, the need for heating stairwells may also warrant review.

Although the hot water heating systems' thermostats were lowered to conserve energy in the south and administrative buildings, a sampling of temperatures in the south building indicates that the 65 degree - 68 degree range specified in the FMC 74-1 guidelines has not yet been achieved. This sampling showed an average of 74 degrees while the outside temperature was 36 degrees.

It appears that the hot water heating system temperatures could be reduced or turned off earlier in order to lower office temperatures to the required range.

Lighting

Generally, we found lighting to be close to the FMC 74-1 guidelines (50 foot-candles at work stations, 30 in work areas, and 10 in nonworking areas) but found three instances in the south building where there was substantial excess. They were:

Cafeteria lighting was in excess due to lights being on in addition to the natural lighting provided by the cafeteria skylights.

Escalator lighting ranged from 75 foot-candles at the bottom of the escalator (furthest distance from the ceiling lights) to 200 at the top.

Auditorium lights were on all day even though the auditorium was frequently not in use.

A GSA official concurred with these observations and plans corrective action. He noted that he has persuaded the cafeteria management to take out half of the 504 lights in the area and that the escalator lights have been reduced in half. He assured us that the auditorium lights will be turned off when not in use.

The GSA official's actions should alleviate the conditions we noted. We believe, however, occasional checks should be made to assure that these situations remain corrected. They should also determine whether additional corrective measures need to be made in the cafeteria lighting to meet the FMC 74-1 lighting standards.

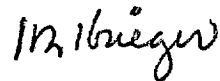
Motor vehicle use

The FMC 74-1 guidelines call for a 15 percent reduction in mileage on a departmentwide basis. On a local Washington, D.C., area basis, USDA's utilization of the GSA motor pool increased 8 percent for the first three quarters of fiscal year 1975 over the same time period for fiscal year 1973 (365,492 versus 337,641 miles). Whether the USDA can absorb this increase on a departmentwide basis is not known; we are mentioning it, however, as a potential area for further examination.

The energy savings achieved thus far are laudable. We hope the information regarding the factors hampering further conservation will be of use to you and would appreciate your comments on them within the next 30 days. Our thanks to the onsite GSA staff for the courtesy extended us.

A copy of this letter is being sent to the Director of Operations, U.S. Department of Agriculture.

Sincerely yours,



H. L. Krieger
Regional Manager

cc: Director of Operations, USDA



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

RESOURCES AND ECONOMIC
DEVELOPMENT DIVISION

7/14/75

Mr. John J. Keaney, Director
Office of Operations
U.S. Department of Agriculture

Dear Mr. Keaney:

As you are aware, the General Accounting Office has been conducting a review of the energy conservation measures taken by the General Services Administration (GSA) at the Department of Agriculture. We have sent a letter to the GSA Regional Administrator, Region 3 notifying him of the results of our work. A copy of that letter is enclosed for your information.

Generally, we found that energy conservation measures have been implemented and are for the most part in compliance with the President's policies as outlined in Federal Management Circular 74-1. There were, however, some areas where further energy savings could be achieved. These involve the heating system, lighting, and motor vehicles. Specific comments concerning these matters are discussed in the enclosed letter.

We are writing because of your continuing interest in this area. You may want members of your staff to get together with GSA and discuss those matters that would be mutually advantageous to resolve. Please feel free to contact Mr. John P. Carroll or Mr. James B. Deemer of our Washington Regional Office should you have any questions. They can be reached on 557-2151.

I would also like to express appreciation for the courtesies extended to the staff during their visit.

Sincerely yours,

A
Richard J. Woods
Associate Director

Enclosure

14th and Independence Avenue, NW.
Washington, D.C. 20250



UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON REGIONAL OFFICE
FIFTH FLOOR
803 WEST BROAD STREET
FALLS CHURCH, VIRGINIA 22046

JUL 8 1975

Mr. David L. DeHaven, Director
Washington Field Audit Office
General Services Administration
Room 6000, Regional Office Building
Washington, D.C. 20407

Dear Mr. DeHaven:

Enclosed for your information is a copy of our letter to the GSA Regional Administrator, Region 3, notifying him of the results of our review of the energy conservation measures taken by GSA at the Department of Agriculture.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "H. L. Krieger".

H. L. Krieger
Regional Manager

Enclosure