



DEPARTMENT OF AGRICULTURE
WASHINGTON, D.C. 20250

Case 30 1068

5-15/367

Honorable Joseph Campbell
Comptroller General of the
United States
General Accounting Office

Dear Mr. Campbell:

For your information there is herewith submitted the views and comments of this Department on your report dated December 22, 1964, entitled "Unauthorized Expenditures for Converting a Bull Barn into a Research Laboratory at the Agricultural Research Center, Beltsville, Maryland." (B-151369)

The report sets forth your views that the expenditure of about \$29,000, out of a total of \$39,000, in the conversion of the bull barn was unauthorized. As noted in the report, the \$39,000 in question was charged to the funds appropriated to this Department under the heading "Agricultural Research Service" for the fiscal years 1961 and 1962. In each of these years the appropriation provided as follows:

"Provided Further, That appropriations hereunder shall be available pursuant to Title 5, U.S.C., section 565a, for the construction, alteration and repair of building and improvements, but unless otherwise provided, the cost of constructing any one building (except headhouses connecting greenhouses) shall not exceed \$15,000 except for five buildings to be constructed or improved at a cost not to exceed \$39,000 each, and the cost of altering any one building during the fiscal year shall not exceed \$5,000 or 5 per centum of the cost of the building, whichever is greater:"

The contention revolves around whether the environmental chambers and the specialized interior plumbing, steamlines and sewer work necessary for the use of such chambers constitute "alterations" to the building as that term was used in the ARS appropriation items. You take the view that these chambers constitute an "alteration" to the building. You also apparently take the view that the entire cost of all interior plumbing, steam connections and sewer work must be charged to the

alteration limitation, regardless of (1) whether such work was made necessary solely by the installation of the environmental chambers; (2) whether it was of a specialized nature which was more costly than would have been necessary in connection with the use of the barn as a "building"; or (3) whether it was installed in such a manner that the structure of the barn was not touched, except by the insertion of renewable nails, etc., used to hold exposed pipes in place.

The Department takes the view that these chambers are equipment rather than an alteration to the building. It also views the interior plumbing, steamlines, electric and sewer work necessary solely to accommodate the special devices, i.e., the environmental chambers, rather than necessary to the ordinary use of the building, as not constituting an "alteration" as that term is used in the AFS appropriation item. The Department also takes the view that where the plumbing, etc., also served the building in its ordinary use, it was not required to charge to the building limitation the cost of such work over and above the cost necessary to the ordinary use of the building. The Department also has operated under the theory that the alteration of a building included only changes in the physical structure in the building.

In support of the Department's view that the environmental chambers are specialized equipment and not an "alteration" to the building as that term is used in the limitation, your attention is invited to the following: These chambers consist of two cabinets, each 32 ft. long, 22 ft. wide and 10 ft. in height. The sides of the cabinets are composed of cinder block, insulation, and aluminum lining. The bottom of the cabinets consist of special foundations, insulated and considerably thicker than the flooring in the rest of the building. The top of the chambers is higher than the ceiling in the rest of the building. The tops are also specially insulated. The humidity and temperature control machinery is attached to the outside top of the chambers. Because of the temperature and humidity conditions in the chambers, the lighting in them is opaque, moisture and vapor proof. The drains in the flooring of the cabinets are of frost proof design. These chambers with their special flooring, insulation, humidity and temperature control equipment, drains, walls, and doors all constitute, in our opinion, specialized integral pieces of equipment.

Your report appears to agree with the position of the Department that equipment need not be charged to the building alteration limitation. There is however, a difference in the views as to what constitutes

equipment. Your report indicates that the temperature and humidity control machinery attached to the top of the cabinets and the insulation in the sides and top of the chambers are equipment. However, it breaks the cabinets into their component parts. For example, the insulation of the sides and ceiling is not considered an alteration but the cinder block in the sides is. It is true that the chambers at one end are attached to the wall of the building. However, they can be removed without any material damage to the wall of the building to which they are attached.

Insofar as "alteration" to the building is concerned, these chambers are, in our opinion, no different than special cabinets constructed outside the building, moved into and bolted to the building. In this connection we discuss below the circumstances which required the chambers to be constructed in this manner.

In designing the research program to study mastitis, it was recognized that study of mature, disease-free twin calves would be necessary, one group to be used as a control and the other group subjected to research methodology. In order for results to be meaningful, it was essential that each group be subjected to identical conditions and further that these conditions be controlled so that differences between the animals could be traced to the research techniques employed rather than brought about by differences in environmental or climatical factors.

One of this Department's earlier approaches to obtaining facilities that would permit the maintenance of the conditions described above was to search the literature in an attempt to find manufactured equipment of sufficient size, scope and complexity to do the job required. There are many manufacturers of climatic chambers equipped with instrumentation to control temperature and humidity. Some of these chambers are delivered fully set up, others are prefabricated to customer's specifications and still others can be constructed at the customer's site, all with proper instrumentation to do the job required. However, our search of the literature failed to locate any manufacturer who could offer chambers that could house eight adult bovine animals; the closest that were found were climatic chambers that would house not over two animals, each at a cost in excess of \$15,000 per chamber. Since eight chambers would be needed, the cost of this equipment alone would have run some \$120,000. Even then, they would not have been satisfactory for the research job because the animals should be able to mingle one with the other within their respective groups. Had we been able to locate the climatic chambers of the size desired and had placed them inside the building, we believe it would have been clear that such chambers were "research equipment" and not building alterations. In

lieu of the commercial equipment, the chambers were constructed by the A.S. A commercial unit might have employed steel and fiberglass insulation or porcelain and cork or many other combinations of material. In an effort to minimize expenses, the A.S. used cinder block together with quantities of insulation in its construction of the chambers. To further place the cabinets in the right perspective, it is also noted that upon completion of this specific research program, it is possible that the barn will revert back to its initial intended use as a barn and in order to fully utilize the building for that purpose it will be necessary to remove the chambers just as it would have been necessary to remove cabinets or other equipment constructed by commercial concerns.

Some structural changes in the barn were necessitated by reason of installation of the special chambers. These consisted mainly of the closing of a few windows and doors and the removal of a part of the floor and ceiling of the barn in order to install the chambers. These changes were considered minor in nature and were directly incident to the installation of special purpose equipment, i.e., the environmental chambers. Thus, it was considered by this Department that these structural changes were within the rule announced by you in such decisions as 16 Comp. Gen. 160, 316 and 3 Comp. Gen. 312, that an appropriation for carrying out a particular program is available without specific construction authority for payment of cost of the necessary structural changes directly incident to the installation of special purpose equipment necessary to the performance of an authorized function.

The temperature and humidity control machinery of the environmental chambers required special heating and electrical energy, thus creating the need for special additional wiring, heating and water facilities. This Department thought it was justified in charging the cost of interior plumbing, steamlines, and electric wiring as equipment rather than as a building alteration where the installation was required solely by reason of the installation of the equipment, i.e., the environmental chambers. Where such work serves the building as well as the environmental chambers it was felt necessary to charge to the building limitation only that part of the cost which represented the costs which had been occasioned by installation of such part of the work as was needed to service the building as distinguished from the special equipment. This position was based on the rule as set forth in 16 Comp. Gen. 316, wherein it was stated.

"It would appear that the wiring now desired is not necessary to the ordinary use or operation of the building but to accommodate the special devices required to carry out the purpose for which the appropriation . . . was made. Such being the case, the necessary expenses incident to the installation of special wiring, etc., is chargeable to the

appropriation for the activity to be benefited thereby rather than to the public building appropriation."

The public building appropriation in that case was specifically available for "conduits and wiring."

A further reason for not charging wiring, plumbing connections, and the steam line to the alteration limitation is the fact that these are all exposed lines connected to the building only by hangers and can be removed with very slight or no damage to the structure of the building. For example, the water was already in the building and the plumbing in connection with distributing it inside the building consisted of exposed pipes attached by hangers. Electricity was also in the building and the electrical wiring consists of exposed BX cable attached to the building only by hangers. We feel that facilities installed in such manner as not to involve the touching of the building except for screws or nails necessary to hold hangers fall within the same category as, for example, window air conditioning units which, although improving the usefulness of a building, are not considered as building alterations. Such consideration seems to be reasonably based on the fact that such installations do not involve a physical change in the structure of the building.

It is further the position of this Department that certain portions of the work included in the \$39,000 clearly constitute repair or maintenance rather than alteration. As noted above, the ARS appropriation items under consideration authorized the use of funds for repair of a building without limitation. As we understand it, the GAO has included in the \$39,000 an item for \$5,663 for tearing out old stalls and flooring and repair of drains, and \$1,300 for new flooring. The old flooring in the barn was in bad repair and the drains were clogged. Regardless of the use to which the barn was placed, the flooring needed to be either repaired or replaced. It was determined that rather than repair the old floor by attempting to patch it and clearing the drains, it was more practical to repair it by replacement. Therefore, it is our opinion that the major portion of the \$5,663 and the entire \$1,300 should be charged to repairs and not to the building alteration limitation. The painting of both the interior and exterior of the barn cost approximately \$2,000. This item was also viewed by the Department as being simply good maintenance, rather than an alteration. There is also included in the \$39,000 an item for \$1,600 for sewer work. A considerable portion of the \$1,600 was used for the repair (in part by replacement) of the existing sewer system, and was therefore charged to repairs.

A \$1,000 expenditure represented the cost of three laboratory sinks which were installed in the barn. These sinks are equipment as distinguished from alterations to the building. There is also included in the \$39,000, an item of approximately \$2,500 for work having no physical connection with the building, such as relocation of the fence and paddocks.

There was certain work done in connection with the bull barn which falls within the scope of the alteration limitation as we have understood that item to be used in the appropriations. These items include:

1. The toilet room for which the limitation has been charged with \$1,500. This work included some plumbing and sewer changes.
2. The walls and doors of rooms into which the barn was divided, such as the milk, engineering and physiology rooms. These walls reach from the floor to the ceiling which was originally in the barn, and are dividing walls in which doors were placed. The total cost of such walls and doors was approximately \$1800. In our opinion, these walls are completely different from the construction of the 10 ft. high, specially designed cabinets, the sides of which consist partly of insulating material and the height of which necessitated the removal of a part of the first floor ceiling of the barn.
3. A hay chute, constructed at a cost of approximately \$575 has also been charged to the alteration limitation.
4. The staircase, which is attached to the wall of one of the chambers, was constructed at a cost of approximately \$850. This staircase was made necessary solely by reason of the fact that the humidity and temperature control machinery is at the top of the environmental chambers, and access to the heavy equipment necessary to operate and maintain such machinery could be had only by a staircase, as compared to the ladders which had heretofore provided access to the loft of the barn. While we believe it could be said that the staircase is, therefore, part of the special equipment--or at least made necessary solely by reason of the installation of the special equipment--we recognize that this may be subject to a different interpretation and have, therefore, charged it to the building limitation.

The items included under 1 through 4 above total \$4,725 which have been charged to the alteration limitation.

The Department's position on the application of the limitation on altering federally owned buildings contained in its annual appropriation acts has recently been endorsed by the House and Senate Appropriations Committees. In considering the second 1965 supplemental appropriation bill the House Committee stated:

"For many years appropriations for the Department have carried limitations on the amounts which may be spent for alteration of Federally-owned buildings. The committee agrees with the interpretation of the Department that these limitations apply only to costs involved in structural or physical changes in a building, but not to the cost of special equipment and facilities, and appurtenances necessary to their operation, needed to provide the controlled conditions necessary for the conduct of research and other programs of the Department. In the installation of such equipment and facilities, only those costs occasioned by actual physical change in the structure of the building should be charged to the limitation." (House Report No. 224, p.6)

After release of the House Report, the Department wrote to the Chairman of the Subcommittee on Deficiencies and Supplementals, Senate Appropriations Committee, advising him that:

"From time to time it is necessary to install scientific equipment required for the satisfactory completion of research and other work conducted by the Department. Frequently installation of such equipment requires structural changes or alterations in the buildings in which the equipment is to be installed.

"The above paragraph sets forth the intention of the House Appropriations Committee that the limitation on costs of altering Federally owned buildings applies only to structural or physical changes in the building and not to the special equipment and facilities and appurtenances thereto which are necessary for the operation of such equipment.

"... We plan to continue to follow this interpretation in future situations involving alteration of Federally owned buildings." (Letter of April 6, 1965 from N. C. Brady, Director of Science and Education.)

Subsequently the Senate Committee stated its position:

"The committee concurs in the statement in the House committee report in regard to the application of the limitation on amounts which may be used on the alteration of federally owned

research buildings. The committee agrees that these limitations can be applied to structural or physical changes in a research facility, but need not be applied to the cost of the humidity-control and air-conditioning equipment necessary, or the installation thereof, to fully achieve the research objective for which the research facility was constructed." (Senate Report No. 167, p.5)

In view of the feeling of this Department that the expenditures incurred in connection with the construction of the environmental chambers were not limited by the construction and alteration authorities in the A&S appropriations, we do not believe it would be appropriate for us to submit the suggested reports to the President and the Congress, or to implement the recommendation that the views contained in your report be disseminated to appropriate officials of this Department.

At the request of Representative William L. Dawson, Chairman, House Committee on Government Operations, our views have been furnished to him. Also, the Bureau of the Budget is being provided with two copies of this letter to you.

Sincerely yours,

E. E. Salmon