



UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

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PROCUREMENT AND SYSTEMS
ACQUISITION DIVISION

AUG 26 1976

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The Honorable
The Secretary of Defense

Dear Mr. Secretary:

A survey was made of the Defense Supply Agency's (DSA) management of wood products (Federal Supply Classification 5510, lumber, and 5330, plywood.) procurement by the Defense Construction Supply Center (DCSC), Columbus, Ohio. The survey was made at DCSC and at 20 Army, Navy, Air Force, and Marine Corps wood products procurement installations, but a comprehensive review was not made at each installation.

Effective procurement of lumber and plywood requires that installations determine the quality and quantity of the items needed, describe to DSA what is needed, and inspect what is received. Our information showed that most installations did not have the technical expertise to determine the proper quality of items needed or to properly inspect them when received. As a result, we found many instances where higher grades of lumber and plywood were ordered than were needed. DSA needs to increase the assistance provided to installations.

Our survey also showed that the automated Military Standard Requisitioning and Issue Procedures (MILSTRIP) system was not appropriate for many purchases. Since DSA began using MILSTRIP in 1973 for wood products purchases, increases have occurred in the time needed to process purchase actions and to get items to installations. Also, it is no longer possible for DCSC to make technical reviews of installation requests to determine whether appropriate items have been ordered. DSA should re-evaluate the use of the automated MILSTRIP system for wood products purchases.

WOOD PRODUCTS MANAGEMENT IN
THE DEPARTMENT OF DEFENSE

DSA became the wood products manager for the Department of Defense in 1962 and for the rest of the Government in 1971 by agreement with the General Services Administration (GSA).

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Both DSA and GSA centrally purchase wood products for Federal agencies' uses that amount to about \$50 million annually. Agencies make additional purchases directly from commercial sources.

DCSC was made the managing organization within DSA for wood products. Its responsibilities for wood products included (1) standardizing, simplifying, and specifying, (2) establishing liaison with agencies, (3) purchasing wood products for agencies, and (4) assuring product quality.

In 1969 DSA established a wood products office in Portland, Oregon, with a suboffice in Atlanta, Georgia, to operate as a commodity-oriented wood products procurement center. These offices were responsible for all purchasing activities for lumber and plywood.

In 1973 DSA closed the Portland and Atlanta offices and consolidated their operations at DCSC to enable the use of MILSTRIP and to reduce manpower and other operating costs by an estimated \$397,000 annually. The 1973 consolidation was the beginning of a series of actions which changed significantly DCSC management of wood products procurement. From 1962 to 1973, DCSC managed wood products as a commodity; that is, all aspects of wood products management were assigned to one organization with expertise in this field. Since the 1973 consolidation wood products management has been divided among separate organizations, each responsible for a functional area such as standardization, cataloging, and quality assurance. Each organization is responsible for many products.

In 1974 DCSC ended the requirement for wood products buyers to have specialized experience in wood products. Although DCSC has retained a wood products division as a separate organization, only the functional responsibility for procurement has remained within the division.

INSTALLATIONS OFTEN ORDERED HIGHER
QUALITY WOOD PRODUCTS THAN WERE NEEDED

We found many instances where higher grades of lumber and plywood were ordered than were needed. Although installations had no requirement for chemically treated lumber, one installation was routinely using it for packaging and crating. Installation personnel said the lumber probably came from an incorrect stock number on a prior order and it continued to be reordered

without question. The problem was corrected during our survey, for an estimated saving of \$77,000 annually.

Another installation was ordering "select" grades of 2- by 4-inch lumber even though most of its requirements were for "common" lumber. We were told the installation ordered select grades to simplify the procurement and the inventory process by having only one quality level on hand. Because the cost of select grade lumber was higher than that of common lumber, the installation incurred unnecessary costs.

The plywood grading system is less complex than the lumber grading system. Plywood grades are based on the appearance of the face and back veneers, with "engineered" grades less costly than "appearance" grades. For example, during the 18 months ended July 1975, engineered grade C-D interior plywood was 34 to 61 percent less costly than appearance grade A-B interior plywood and 24 to 54 percent less costly than appearance grade A-C exterior plywood. DCSC said most of the plywood used by military installations was for common construction purposes, such as packing, crating, dunnage, and building construction and maintenance. However, about 75 percent of the plywood ordered was appearance grade.

At eight installations, appearance grade plywood was used for packing and crating when engineered plywood would have been appropriate and more economical. For example, at one installation appearance grade exterior plywood was routinely used for crate construction. When we brought the matter to the attention of installation personnel, they agreed to use engineered grades at estimated annual savings of \$66,000. We also noted instances where appearance grade plywood was used for roof sheathing and flooring.

Some installations used appearance grade plywood because they misinterpreted its value or misinterpreted guidelines for equating quality with end use. For example, one installation used appearance grade plywood to construct pallets and brace dunnage for ammunition shipments when construction specifications showed that engineered grade plywood was required. Also, a training center used appearance grade plywood to construct tank targets for gunnery practice because it was in stock and because it was believed to be stronger than alternative grades. According to industry publications, appearance grade plywood provides only better appearance; it is not stronger than the engineered grade.

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In each of these instances, reducing the grade of plywood used to the appropriate level would have saved about 50 percent of the cost.

INSTALLATION USERS NEED
BETTER GUIDELINES

Installations need better guidelines for preparing purchases orders and contracts and for inspecting the wood products received from suppliers.

Purchase descriptions developed by installations frequently included inaccurate quality definitions, and contracts and purchase orders often included conflicting descriptions. Occasionally installations used wood grades of one industry association to identify grades of a different association. Also, installation purchase orders and contracts seldom called for grade "marked" or certified wood products.

Many of the installations we surveyed did not have an effective inspection system. Inspectors who receive and accept shipments have final responsibility for seeing that shipments of wood products conform to specifications, such as quantity, grade, dimension, type, moisture content, and surfacing. Although purchase descriptions generally required grade marked lumber, inspectors at one installation did not understand grade stamps. The lumber received was marked "green" (unseasoned, with high moisture content) and was very susceptible to warping in the very dry climate.

Had the inspectors pointed this out, the purchase orders could have been changed to specify seasoned lumber. This was not done, and the installation, attempting to solve the warpage problem but unaware of its cause, continued ordering more expensive, higher grades of lumber. The problem continued but at a higher cost. When installation officials were told, they agreed to seek expert advice on their wood products purchases. The installation later purchased seasoned lumber and lower grades of lumber and plywood.

At another installation, an inspector said he measured certain characteristics of incoming lumber shipments to determine if they were acceptable. He had a 1969 version of southern pine grade rules to refer to, but his publication was out of date for certain southern forest products and useless for any hardwood, plywood, or western forest products.

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Installations relied heavily on industry association grading rules, commercial standards, Federal/military specifications and Federal Supply Group 55 Identification Lists developed by DSA for information on how to relate qualities, species, and sizes of wood products to end uses.

The survey showed that industry literature was usually not useful to many installation personnel because it was intended for persons with lumber expertise. Federal/military specifications were usually not useful because they rarely identified the grades of lumber and plywood that should be used. The military standards used in the Department of Defense were not always useful because its quality standards did not correspond with the quality standards developed by industry associations.

Also, DSA's identification lists were of limited use because they did not always include definitive and accurate descriptions. For example, an identification list used by military agencies identified Utility/#3 softwood dimension lumber as suitable for ordinary construction. These descriptions were too general to help installation personnel; they did not highlight price differentials between the items--generally 30 percent--nor emphasize the equivalency of the items for many common uses.

The DSA identification list also equated, under the same specification and stock number, grades of the Western Wood Products Association with finish lumber grades of the Southern Pine Inspection Bureau. These grades were not equivalent since select grades were more restrictive than finish grades and cost as much as 100 percent more, depending on species and grade.

AUTOMATED MILSTRIP PURCHASING SYSTEM NOT APPROPRIATE FOR WOOD PRODUCTS

In 1962, shortly after DSA accepted the responsibility for wood products management for the Department of Defense, it considered replacing the manual Military Interdepartmental Purchase Request procedures with MILSTRIP. However, DSA decided that MILSTRIP could not be used for these purchases because detailed descriptions essential for ordering were not compatible with the automated MILSTRIP system. Other DSA studies in 1964, 1967, and 1969 reaffirmed this decision.

In 1973, however, DSA decided to use MILSTRIP. DSA claimed that MILSTRIP would reduce (1) the manual work used in preparing,

transmitting, and processing requisitions and save an estimated \$397,000, and (2) the product delivery time by at least 10 days. To use computer facilities in Columbus, Ohio, DSA closed the wood products offices in Portland and Atlanta.

The decision to use MILSTRIP was based on data which showed that about 80 percent of the wood products items could be processed on the automated MILSTRIP system. The estimate was based on incoming requisitions for routine stock numbered items. Our analysis showed that in addition to the 20 percent of the incoming requisitions for wood products which did not have stock numbers, 65 percent of the remaining requisitions required cleanup and clarification because ordering installations added descriptions to the MILSTRIP requisitions.

We were told at DCSC that about 50 percent of the MILSTRIP requisitions had some type of descriptive data. Thus, for many of the routine wood products requisitions, installations manually added descriptive data to the standard information associated with a stock number or wrote a completely new description on the MILSTRIP requisition. Requisitions with specifications added were manually initiated and transmitted by the ordering installations and manually processed by DCSC.

MILSTRIP also limited the number of units ordered to five characters. Lumber requisitions were limited to 99,999 board feet. For larger requirements, multiple requisitions were processed.

MILSTRIP also did not permit the inclusion of end use information that had previously been included on the purchase request requisitions because the standard MILSTRIP form did not have space for such information. Because end use information was no longer reported to DCSC, DCSC's technical personnel could not review the requisitions to compare the items ordered with their intended uses.

The time between receipt of purchase requests and award of contracts increased. For purchases over \$2,500, the time needed was estimated as follows:

<u>Fiscal year</u>	<u>Days required</u>
1970	24 to 26
1971	21 to 24
1972	12 to 17
1973	14
1974-75	37 to 42

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Officials at several military installations told us they now maintain a 5- to 6-month stock of common wood products because of the increased time needed to obtain the products. One installation told us that it formerly carried a 2-month inventory of about \$300,000 when the wood products offices were operating; after the offices closed, the inventory had to be increased to a 6-month inventory of about \$1 million.

CONCLUSIONS AND RECOMMENDATIONS

Effective procurement requires technical competence. In the past, DSA provided for technical competence in the procurement of wood products by establishing a centralized group of experts who (1) reviewed agency requisitions to insure the quality of wood requested was appropriate for its planned use, (2) developed guidelines to help unexperienced users select products, and (3) periodically visited agencies to serve as an information source for technical advice. These activities were reduced after the Portland and Atlanta offices were closed. We believe these reductions have had an adverse impact on wood products procurement.

To improve the management of wood products procurement, we recommend that you require the Director, DSA, to:

- Re-evaluate the use of the automated MILSTRIP system for procuring the wood products when it is not feasible to assign stock numbers and when descriptive data, such as detailed descriptions or additional specifications, are required.
- Increase DSA's assistance to installations by assuring that up-to-date guidelines are available for use and by providing training courses and visits by wood products experts.

As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the House and Senate Committees 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.

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Copies of this report are being sent to the Chairmen of the House and Senate Committees on Appropriations, Armed Services, and Government Operations; to the Director, Defense Supply Agency; and to other chairmen, congressmen, and private citizens who are interested in DSA's procurement of wood products.

We will be glad to discuss any questions you have on matters discussed in this letter.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "R. W. Gutmann".

R. W. Gutmann
Director