



**U.S. GOVERNMENT
PRINTING OFFICE**

KEEPING AMERICA INFORMED

**PAPER PROCUREMENT AND
USE ISSUES**

**Office of the Inspector General
White Paper**

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Report Number 04-02

BACKGROUND

The Chief of Staff's office requested that the Office of the Inspector General (OIG) research and provide information, data, and suggestions on the following aspects of GPO's paper procurement and use process:

- Warehouse operations,
- "Just-in-time" inventory, and
- Paper waste.

As also requested, this White Paper provides basic information on the GPO personnel involved in the various aspects of the paper process (see Attachment I) and a paper process flow chart and narrative (see Attachment II).

EXECUTIVE SUMMARY

As GPO transforms from a predominantly "printing" operation to an "information dissemination" operation, many changes are taking place. With these changes, problems arise for which GPO has identified and is testing potential solutions, such as issues regarding excess warehouse space.

Other issues, such as "just-in-time" inventory and paper waste, provide opportunities for GPO to improve its efficiency and effectiveness in meeting its mission. This White Paper provides three areas needing further study or attention in order for GPO to address these issues:

1. A comprehensive study should be conducted of "just-in-time" inventory that addresses one or more of the following: lessons learned from an on-going pilot project; projections concerning all inventory; and consideration of available office and warehouse space and potential future uses for those spaces.
2. A separate study into the advantages and disadvantages of allowing a "just-in-time" inventory contractor to use existing GPO warehouse space. This option offers many benefits that could be shared by GPO and the contractor – e.g., eliminating added costs of transporting paper from off-site warehouses; direct deliveries to GPO's substores; and readily available paper in emergency situations such as terrorist strikes and inclement weather.

3. The GPO's Chief of Staff should appoint a specific Anti-Waste Committee to coordinate and build upon the initiatives of the Excellence Through Teamwork Committee and other GPO departments. Examples of suggested agenda items for the Anti-Waste Committee include: determine the quality and accuracy of GPO's present data on paper waste; examine the adequacy of internal controls (including those designed to protect paper from theft); and research costs and benefits of new printing technologies.

WAREHOUSE OPERATIONS

In the past 15 years, GPO had paper usage of up to 100 million pounds per year. This has steadily declined with some fluctuations over the years. The table below shows GPO's decreasing annual paper usage/procurement between Fiscal Year 2001 (50 million pounds) and Fiscal Year 2003 (38 million pounds).

Table 1. GPO Paper Usage/Procurement

<u>Fiscal Year</u>	<u>Dollars</u>	<u>Pounds</u>
2001	\$27.0 million	49.6 million
2002	\$22.6 million	44.8 million
2003	\$18.8 million	37.6 million

Past OIG recommendations and GPO actions. As paper usage began to drop, the opportunity to save money by reducing warehouse space became apparent.

A GPO Inspector General audit in 1996 titled *Audit of GPO's Warehouse Space* recommended changes concerning space usage. One recommendation dealt with GPO developing a strategic plan that would use GPO's office, production, and warehouse space more efficiently and effectively. (This recommendation was also suggested in an Arthur Anderson study of GPO operations in January 1996.) In 1999 the GPO Inspector General issued a report titled *Report on the Follow-up Audit of GPO's Warehouse Space*. One recommendation of the 1999 audit was that GPO should study the feasibility of consolidating the Springbelt warehouse into the Laurel complex before the Springbelt warehouse lease expired on September 30, 2000.

Subsequent to that report, in September 2000, GPO closed the Springbelt warehouse and moved the operations to the Laurel II warehouse. Terminating the Springbelt lease reduced GPO's total floor space by 180,000

square feet and resulted in an annual savings of over \$800,000, or over \$2.8 million to date.

In addition, in July 2003, GPO terminated its paper inventory operations at the Laurel II warehouse, which resulted in annual savings of approximately \$840,000, or about \$550,000 to date. The annual savings are broken down as follows:

Table 2. Annual Savings of Discontinuing Paper Inventory at Laurel II Warehouse

Personnel Comp and Benefits	\$265,223
Freight Charges	133,767
Rent	356,510
Utilities	60,950
Other Expenses	<u>22,825</u>
Total	<u>\$839,275</u>

Furthermore, moving the paper out of Laurel II warehouse allowed the Information Dissemination Department to move its operations from the Laurel I facility to the Laurel II warehouse. The Laurel I lease will expire in August 2004 and will not be renewed. This will result in an additional reduction of 180,000 square feet of warehouse space and an annual savings of about \$860,000 per year – \$680,000 for the lease and \$180,000 for utilities.

Reduced inventory savings. During Fiscal Year 2003, the Managing Director of Plant Operations began reducing the paper inventory (mostly in the inventory of newsprint, which makes up a large part of the total paper inventory). This and other initiatives resulted in significant reductions in GPO's paper inventory – almost a 60-percent reduction from September 2001 to February 2004. Similar reductions were effected in the inventories of envelopes and cartons.

The table below provides GPO's basic inventory figures for paper, envelopes, and cartons between 2001 and 2004. The below inventory figures are "as of" certain dates. These four "snap-shot" inventory levels and dollar-values demonstrate GPO's downward trend in inventories.

Table 3. Inventories of Paper and Related Items

(The paper unit of measure is "pounds.")

The envelopes and cartons units of measure are "each.")

As of September 30, 2001

Paper	9,935,310 lbs.	
Envelopes	11,466,325	
Cartons	218,306	
Total Dollar amount of inventory		\$5,563,946.00

As of September 30, 2002

Paper	8,711,717	
Envelopes	10,701,450	
Cartons	127,713	
Total Dollar amount of inventory		\$5,506,339.00

As of September 30, 2003

Paper	5,692,527	
Envelopes	7,417,650	
Cartons	99,685	
Total Dollar amount of inventory		\$4,201,798.00

Most recent – as of February 27, 2004

Paper	4,133,410	
Envelopes	5,008,300	
Cartons	72,674	
Total Dollar amount of inventory		\$2,520,083.00

These reductions in paper and related inventory items resulted in a dollar-reduction of about \$3.0 million between 2001 and 2004. These are funds that GPO can put to other, better use.

"JUST-IN-TIME" INVENTORY

GPO officials are currently planning a pilot project for "just-in-time" inventory.¹ Under this pilot, a supplier would be awarded a contract to provide GPO's paper needs and store them in an off-site warehouse. The contractor would then deliver requested paper to GPO within 24 hours. For the pilot project, officials will select only a few types of paper to be purchased and stored by

¹ The information on just-in-time inventory in this White Paper was based on OIG discussions with the Managing Director and staff of the Production Department and officials and staffs of the Customer Services Department.

the contractor. Part of GPO's planning for the pilot includes consideration of using only trucks to deliver paper to GPO – i.e., discontinuing the use of rail deliveries to Warehouse IV (located near Union Station in Washington, DC). The potential benefits of just-in-time inventory include further reducing GPO's inventory levels, which in turn results in less funds being tied up in inventory and excess space in Warehouse IV that could be leased. The pilot project does not yet have a start date but is expected to begin this year.

OIG comments and concerns. While GPO managers are to be commended for undertaking such a pilot project, OIG has the following comments and concerns regarding applying a just-in-time inventory system to GPO's paper operations.

- As presently envisioned, “just-in-time” inventory will require the handling of paper by GPO employees just as many times as the present system, plus there would be additional handling by the contractor.
- GPO presently has adequate storage space for inventory requirements, thus a contractor would be duplicating GPO facilities.
- GPO's planning does not envision closing Warehouse IV since it houses passport and postal card operations. Any partial unused space in Warehouse IV would not easily be converted to commercially-desirable space.
- GPO presently maintains paper stock to service the needs of Congress. A contractor may attempt to lower costs by storing less inventory, thus increasing the risk that required stock may not be available when needed.
- The "trucks only" option (i.e., eliminating GPO's rail access) submits GPO to the risks of additional costs associated with increased traffic congestion, increased fuel prices, and increased labor to accommodate additional deliveries. (OIG recognizes this “trucks-only” option would eliminate GPO's security concerns and responsibilities related to the rail entrance.)

OIG suggestions. Regarding just-in-time inventory, OIG suggests the following:

- A more comprehensive study (in addition to the pilot project) should be conducted on “just-in-time” inventory. GPO management should consider the following issues when planning and conducting this study:

- Lessons learned from the pilot project;
- Projections concerning and/or relative to all inventory;
- Consideration of available office and warehouse space and potential future uses for those spaces; and
- Consideration of allowing just-in-time contractors to use commercially-available paper (e.g., 30-pound newsprint) instead of special-order paper (28-pound newsprint) in order to decrease costs.

(OIG notes that the above issues have verbally been discussed by some of the GPO officials involved in the pilot project but have not been specifically committed to or articulated in writing.)

- A separate study into the advantages and disadvantages of allowing a “just-in-time” inventory contractor to use existing GPO warehouse space instead of storing paper in an off-site warehouse. Allowing the contractor to use GPO space offers many benefits to both GPO and the contractor:
 - Additional costs (affecting GPO as well as the contractor) of transporting paper from an off-site warehouse would be eliminated.
 - Paper would readily be available, even in situations such as inclement weather and terrorist strikes.
 - GPO and the contractor would have rail access for deliveries.
 - Currently available warehouse space is more than adequate for GPO needs, and the contractor could also use the additional warehouse space for other purposes. (The study should also research GPO’s responsibility to monitor contractor activity for homeland security and other legal requirements.)
 - Direct deliveries could be made to substores, which would be more economical, effective, and efficient.

PAPER WASTE

Paper waste at GPO continues to be a serious problem. GPO's recent (FY 2003) monthly percents of paper waste averaged about 40 percent.²

GPO officials in the Production Department and Customer Services Department state that the primary sources of waste are the roll-fed presses. Further, OIG identified several cases where roll-fed press runs actually produced more waste than product. GPO managers and staff recognize that the roll-fed press operations create a large amount of waste, but have not been able to identify effective solutions to reducing such waste. GPO managers and staff noted to OIG that the roll-fed press operations are significantly more *timely* in producing final products. This timeliness (i.e., effectiveness) is because roll-fed presses, unlike other processes like sheet-fed presses, do not require the additional operations of folding and binding the products.

GPO has done a good job of (a) documenting the percentage of waste, (b) recording and calculating waste, and (c) beginning to work on controlling waste. In this regard, the Excellence Through Teamwork Committee has had success with studying specific waste problems and has committed resources to finding solutions to these problems. For example, the Committee has proposed goal-sharing program to reduce costs and to provide an incentive to employees to improve work practices. A key component of the goal-sharing program is the reduction of paper waste. GPO anticipates implementing the goal-sharing program during Fiscal Year 2004.

Further, the Committee is working with the Quality Control and Inventory Management staff on a pilot project to bar code paper for tracking it to a specific job. This project is expected to identify other sources of unnecessary waste (in addition to the press runs previously mentioned). Potential areas where unnecessary waste may be occurring include:

- Inventory handling;
- Preparation of rolls for the presses;
- Trimming during operations; and
- Press operations between shifts (i.e., shutting down presses between shifts).

² This is in excess of the industry average of 15 percent, but does not take into consideration that GPO operations are different from commercial operations.

To cut paper waste significantly, the Excellence Through Teamwork Committee members acknowledge that GPO must implement a GPO-wide review of the entire process and then establish a system of accountability.

OIG suggestion. Regarding the paper waste issue, OIG suggests GPO's Chief of Staff appoint a specific Anti-Waste Committee to coordinate and build upon the initiatives of the Excellence Through Teamwork Committee and other GPO departments. In setting its agenda, the Anti-Waste Committee should include the following areas:

- Determine if GPO's present data on waste is accurate;
- Examine the adequacy of internal controls, including those designed to protect GPO's paper from theft;
- Continue to ensure that GPO job planners are aware of and use the most efficient machines presently available at GPO;
- Research costs and benefits of new printing technologies that will be more efficient with small jobs while providing timely products; and
- Develop strategies and procedures that will bring solutions on-line as rapidly as possible.


CONTRIBUTORS

Mr. Rodney Dahl, Supervisory Auditor, Mr. Joseph Verch, Supervisory Auditor, and Ms. Patricia Mitchell, Auditor, conducted this review.

We appreciate the cooperation and courtesies extended during the review by the Managing Director and staff of the Production Department and officials and staffs of the Customer Services Department, Office of the Comptroller, and Office of Budget. These officials and staff also reviewed and provided invaluable comments in the production of this White Paper.

MARC A. NICHOLS
INSPECTOR GENERAL

By: 

 Rodney Dahl, Supervisory Auditor
Joseph Verch, Supervisory Auditor

Attachments (2)

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**PERSONNEL INVOLVED IN THE PROCUREMENT, INVENTORY,
QUALITY CONTROL, AND WAREHOUSING OF PAPER**

Paper & Materials Control Section

- 1 PG-13 Chief, Printing Specialist
- 1 PG-13 Printing Specialist
- 3 PG-12 Printing Specialists

Staff of this section perform the following functions:

- Determine amounts, sizes, and kinds of paper to be kept in stock in order to maintain appropriate inventory levels and to meet production requirements;
- Establish minimum inventory levels and reorder quantities;
- Research and review items, quantities, and schedule requirements on purchase orders;
- Generate purchase requests for special order paper and material items;
- Liaison with Congress and Federal agencies on their blank paper requirements; and
- Prepare work jacket instructions for the Bindery and Paper Procurement Sections in order to furnish blank paper to customers.

Warehouse Operations Section

<u>Shift</u>	<u>Warehouse IV</u>	<u>Roll Issue</u>	<u>Baling Room</u>	<u>Total</u>
1	12 ³	4	0	16
2 ⁴	6	3	2	11
3	7	4	2	13
				<u>40</u> ⁵

Staff of this section perform the following functions:

- Load and unload railcars and trucks at warehouse docks;
- Move paper to and from Warehouse IV, Roll Issue Operations, and Baling Room Operations; and
- Initiate and record transactions involving transfer of paper.

³ Three of the twelve are detailed to Supply Operations.

⁴ Second shift moves employees back and forth between Warehouse IV and Roll Issue as needed.

⁵ Ten of these employees have applied for early retirement.

Paper Procurement Section

1 PG-13 Chief, Contracting Officer
1 PG-12 Contracting Officer
1 PG-9 Contracting Officer
1 PG-7 Contracting Officer
1 PG-5 Procurement Technician

Staff of this section perform the following functions:

- Competitively acquire all paper, envelopes, and cartons for GPO, its printing contractors, and other Federal agencies.

Administrative Operations Section (Inventory)

1 PG-11 Chief, Administrative Operations Section
2 PG-6 Inventory Specialists

Staff of this section perform the following functions:

- Conduct periodic and annual inventories of paper stock.

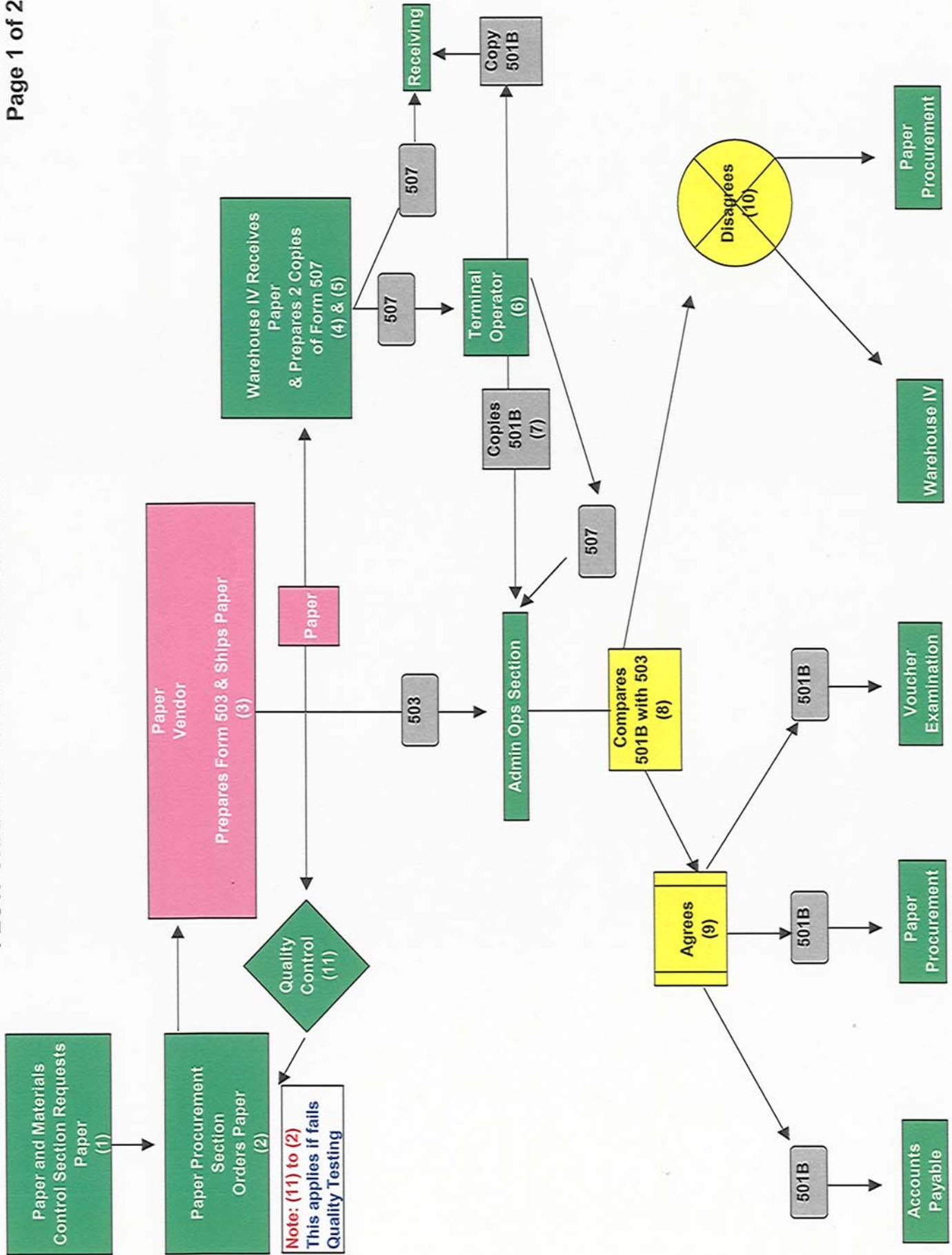
Testing and Technical Services Division

1 PG-7 Physical Science Technician (100% of time)
3 PG-6 Inspector Technicians (50% of time)
2 PG-7 – 12 Chemists (5% of time)

Staff of this division perform the following functions:

- Conduct sampling, inspection, and testing to assure that purchased paper complies with specifications from the Joint Committee on Printing.

FLOW CHART OF GPO'S PAPER PROCESS



Narrative to Flow Chart of Paper Process

1. The Paper and Materials Control Section in Production generates a purchase request for needed paper.
2. The Paper Procurement Section in Customer Services issues a purchase order for requested paper.
3. GPO Form 503 *Contractor's Shipping Memorandum* shows the purchase order number, property number, weight, and quantity. The paper vendor forwards GPO Form 503 to the Administrative Operations Section before the paper is shipped.
4. Once the paper is received, Warehouse IV staff prepare two copies of GPO Form 507 *Load Ticket*, which shows the purchase order number, property number, skid and roll information, weight, and quantity.
5. The receiving personnel from Warehouse IV keep a copy of the GPO Form 507 and forward the other copy to their terminal operator.
6. The terminal operator enters the data from GPO Form 507 into the automated data system and forwards the GPO Form 507 to the Administrative Operations Section.
7. Once the GPO Form 507 data have been entered, the automated system produces copies of GPO Form 501B *Receiving and Inspection Ticket* and updates the inventory. Copies of GPO Form 501B are forwarded to Administrative Operations, and a copy is kept by receiving personnel.
8. The Administrative Operations Section compares the data on GPO Form 501B with the data on Form 503 to determine whether GPO received what the vendor stated it shipped.
9. If the data on both forms agree, copies are furnished to Accounts Payable, Voucher Examination, and Paper Procurement for processing.
10. If the data does *not* agree, the Administrative Operations Section checks to see if Warehouse IV staff made an error in entering the quantity received. If yes, Administrative Operations correct the Form 501B and the entry in the automated system. If no, Administrative Operations instructs the Paper Procurement Section to: (1) notify the vendor; (2) prepare a change order; and (3) correct the quantity received in the automated system.
11. The Quality Control Division receives a computer printout of the paper that needs testing. If the division finds that the paper does not meet specifications, Paper Procurement is notified to reject and reorder the paper.

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