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 CONRAIL NEEDS TO FURTHER IMPROVE INVENTORY CONTROL AND MANAGEME--ETC(U)  
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# Report To The Congress.

OF THE UNITED STATES

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## Conrail Needs To Further Improve Inventory Control And Management.

The Consolidated Rail Corporation (Conrail) has made progress in its attempts to improve control over materials and supplies used to maintain and rehabilitate the railroad, but more needs to be done.

Since 1976 the Congress has provided \$3.3 billion in Federal funds to Conrail, about \$1.4 billion of which has been spent for track rehabilitation. The inventory records for materials and supplies for track rehabilitation are largely inaccurate regarding what items are on hand and where they are located. The book value of inventory on September 30, 1980, was about \$239 million. Although the physical count of inventory on that date differed by only \$1 million from the amount shown in the records, there were total variances of \$99 million consisting of inventory stores with shortages of \$50 million and overages of \$49 million. Conrail had to adjust its records by these amounts. In addition, because Conrail's records are inaccurate, it cannot be sure that it is purchasing items that are actually needed.

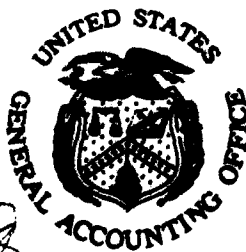
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COMPTROLLER GENERAL OF THE UNITED STATES  
WASHINGTON D.C. 20548

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To the President of the Senate and the  
Speaker of the House of Representatives

→ This report discusses problems the Consolidated Rail Corporation (Conrail) has in controlling and managing its inventory of materials and supplies used in rehabilitating and maintaining its track system and makes several recommendations aimed at strengthening inventory controls. Conrail has made some progress in this area, but more needs to be done.

We made our review pursuant to the Regional Rail Reorganization Act of 1973, as amended (45 U.S.C. 701). This law, which created Conrail, also requires that the Comptroller General report to the Congress on the security of Federal funds invested in Conrail and to make recommendations for achieving greater economy, efficiency, and effectiveness in Conrail's operations.

We are sending copies of this report to the Secretary of Transportation; the Chairman and Chief Executive Officer, Consolidated Rail Corporation; the President, United States Railway Association; and the Director, Office of Management and Budget.

*Shelton J. Fowler*  
Acting Comptroller General  
of the United States

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D I G E S T

Since beginning operations in 1976, the Consolidated Rail Corporation (Conrail) has spent more than \$3.5 billion for materials and supplies to maintain and rehabilitate the railroad. Conrail maintains an inventory of materials and supplies which at year end has averaged \$240 million. Since 1976 the Congress has provided \$3.3 billion in Federal funds to Conrail, about \$1.4 billion of which has been spent for track rehabilitation.

The Regional Rail Reorganization Act of 1973 (45 U.S.C. 701) provides that the Comptroller General should keep the Congress informed of the security of Federal funds invested in Conrail. GAO's objective in this review was to evaluate the physical and management controls Conrail has for its maintenance-of-way inventory and to determine whether inventory losses, thefts, or unauthorized use could occur and not be detected. Maintenance-of-way inventory consists of items required to maintain and rehabilitate tracks, bridges, buildings, as well as items to maintain and repair maintenance-of-way work equipment.

To help manage its inventory, Conrail uses a computer-based inventory control system. The system is designed to provide information on where the inventory is, how much is on hand, and what is on order.

GAO found, however, that Conrail's inventory system is not providing accurate and reliable information. Inventory records are largely inaccurate and are not maintained for many field locations. As a result, the only time Conrail knows what it has in inventory and where it is, is when the inventory is counted--currently once each year. During the rest of the year, Conrail cannot rely on the information produced by its inventory system. (See p. 7.)

Without reliable inventory information, Conrail managers cannot be sure that items being purchased are actually needed.

Inventory records are inaccurate due to

--inadequate physical controls over the inventory,

--failure or delay of Conrail field personnel to complete and process material transaction documents,

--lack of a requirement to document transfer of materials between Conrail divisions, and

--lack of inventory records for many field locations. (See p. 24.)

PHYSICAL INVENTORY RESULTS  
ILLUSTRATE ACCURACY PROBLEMS

The difference between the inventory book value and the annual physical inventory count taken on September 30 indicates the poor condition of Conrail's inventory records. Conrail counts the inventory at each of its approximately 1,000 inventory stores, compares the count with the book value, and then reports the difference. The book value of Conrail's inventory at September 30, 1979, was \$249.7 million and the count value was \$249.1 million, or a net variance (shortage) of \$611,700.

Conrail officials believe the net shortage of \$611,700, which represents a relatively small percentage of inventory items purchased and used in that year, is an indication of good inventory record accuracy and control. Conrail officials also said that Conrail's method is an accepted industry practice. GAO agrees with Conrail to the point that calculating net inventory variances is necessary for accounting purposes. It tells management and other interested parties that the value of the assets shown on the books actually exists. It does not, however, give any data on whether the specific items shown on the books exist or where they are located.

GAO believes a better indication of the condition of the records is total, or gross, variances. The total of these variances at September 30, 1979, was \$57.4 million--\$29 million in inventory shortages and

\$28.4 million in overages (surpluses) at Conrail inventory stores. The \$57.4 million is the amount by which Conrail adjusted its financial inventory records in 1979 and represents a variance of 23 percent from the \$249.7 million reported by the inventory records at the time of the physical count. (See p. 10.)

The September 30, 1980, inventory count showed the records were less accurate than in 1979. The gross variances totaled \$99 million, which was about a 42-percent variance from the \$238.9 million in inventory at the time the items were counted. In contrast to Conrail's gross variances of 23 percent in 1979 and about 42 percent in 1980, Amtrak had a 17-percent gross variance in 1978. (See p. 12.)

Conrail has not established standards for judging the accuracy of its records. Conrail officials could not explain why they had not established standards but said they plan to do so in the future. (See p. 23.)

Conrail needs to make more use of gross variances for determining whether record problems exist. Presently, Conrail relies on stores' net variances to determine which stores to investigate, a method that does not provide a complete picture of conditions at a particular store. For example, Conrail's count at one store showed an inventory value of \$2,230,811, which was only \$744 below the book value. However, for the same store, the gross variance was \$784,706, consisting of overages of some items of \$391,981 and shortages of others totaling \$392,725. Using gross variances would provide management with a more complete and meaningful picture of inventory control and performance than net variances. (See pp. 10 and 11.)

#### PROBLEMS WITH REPORTING ONLY NET VARIANCES

Conrail officials stated that coding errors were a major cause of the variances; that is, items were shipped from one store to another but the transfers were not properly recorded. According to Conrail, although these errors

produce an overage at one store and a shortage at another, the errors are offsetting and have no real impact because both the inventory item and its value can be shown to exist. GAO found that this was not the case and that dissimilar inventory items were being offset against each other.

For example, the September 1979 inventory count disclosed a systemwide shortage of a particular item of almost \$1.7 million based on a book value of \$3.8 million and a count value of \$2.1 million. However, partially offsetting this shortage was a \$700,000 overage of a completely different type item. The offsetting of inventory shortages and overages is repeated hundreds of times for the items in inventory. GAO believes this demonstrates that, although inventory value exists for all items on a systemwide basis, the items themselves do not necessarily exist because the value of unlike items is being offset. (See pp. 13 and 14.)

#### EFFECTS OF INACCURATE RECORDS AND POOR CONTROLS

In a limited test of purchase orders, GAO identified examples, in October 1979 and October 1980, where Conrail purchased unneeded items amounting to \$50,000 and \$18,000, respectively, because the inventory records failed to show that surplus items were in inventory to satisfy the requisitions.

In addition to unnecessary purchases, Conrail is incurring other costs to provide the same information and controls that its automated inventory control system was designed to provide. These costs are for (1) a manual screening process that attempts to eliminate unnecessary purchases, (2) maintaining manual inventory records at some locations, and (3) special inventory counts. (See p. 39.)

#### RECOMMENDATIONS

GAO makes a number of recommendations to the chairman and chief executive officer of Conrail directed toward:

- Establishing and monitoring reasonable inventory record accuracy standards. (See p. 27.)
- Maintaining inventory records for each inventory location. (See p. 27.)
- Revising procedures to provide for the investigation and evaluation of a representative number of gross, rather than net, inventory variances at each store. (See p. 27.)
- Changing the organizational structure so that users and custodians of maintenance-of-way materials are not in the same department. (See p. 28.)
- Establishing a procedure for the transfer of inventory items from one Conrail location to another. (See p. 37.)

GAO also made other recommendations aimed at strengthening Conrail's inventory controls. (See p. 37.)

#### AGENCY COMMENTS

The U.S. Railway Association (USRA) agreed with GAO's findings and conclusions. Conrail agreed with GAO that further improvement is needed in inventory control and management. Conrail believes, however, that actions it has already taken or has in process will materially improve that inventory management system and resolve many of the issues raised in GAO's report. Conrail specifically cited its program to consolidate and reduce the number of inventory control points.

Under the program, Conrail plans to establish a maintenance-of-way material yard for each of its 20 divisions, thereby substantially reducing the number of inventory locations. Conrail expects this program to be fully implemented this year. GAO agrees with the overall purpose of the program and believes it will help achieve better inventory control.

Conrail stated that the gross method of inventory analysis used by GAO in the report compounded the problem and that the net method of inventory analysis used by Conrail is typical industry practice. GAO believes that the use of net inventory variance analysis alone



does not disclose the true conditions of individual stores. By restricting its analysis to net variances, Conrail has not identified and investigated significant variances at many of its inventory stores. USRA agrees with GAO that gross variance analysis is preferable.

In regard to GAO's recommendation that Conrail revise its organizational structure so that users and custodians of materials are not in the same department, Conrail did not indicate that there would be any organizational realignment of these duties. GAO believes it is important to a good system of management control of inventory that Conrail separate these duties. GAO also believes the successful implementation of Conrail's program to consolidate and reduce the number of inventory control points, discussed above, is heavily dependent on the separation of user and custodial functions.

Conrail's and USRA's written comments are included as appendixes II and III. The matters discussed above, as well as other areas of concern to Conrail, are discussed in more detail on pages 28 and 37.

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#### ABBREVIATIONS

Conrail	Consolidated Rail Corporation
GAO	General Accounting Office
MAPS	material, accounting, and purchasing system
USRA	United States Railway Association

## CHAPTER 1

### INTRODUCTION

The Consolidated Rail Corporation (Conrail) was created by the Regional Rail Reorganization Act of 1973 (45 U.S.C. 701). The law establishing Conrail provides that the Comptroller General of the United States is authorized to audit Conrail's programs, activities, and financial operations in accordance with rules and regulations prescribed by the Comptroller General. The law also provides that the Comptroller General should inform the Congress on the security of Federal funds invested in Conrail and to make recommendations for achieving greater economy, efficiency, and effectiveness in Conrail's programs, activities, and operations.

Conrail has a substantial investment in its inventory of materials and supplies. The inventory consists primarily of (1) maintenance-of-way items required to maintain and rehabilitate tracks, bridges, buildings, signals, etc., and to maintain and repair maintenance-of-way work equipment, (2) maintenance-of-equipment items such as spare parts and materials needed to service and repair locomotives and freight cars, and (3) fuel oil. Conrail valued the inventory at \$268.4 million as of December 1980.

The Federal Government has a large investment in Conrail, and therefore it has a substantial interest in seeing that Conrail manages and controls its inventory efficiently and effectively. The maintenance-of-way inventory is of special interest because each year the Government provided all the funds for the materials and supplies Conrail used in its track rehabilitation program. Through 1980, Conrail had spent \$1.4 billion in Federal funds for track rehabilitation.

#### WHAT IS CONRAIL?

Conrail is a for-profit corporation which began operations on April 1, 1976, when it assumed major portions of six bankrupt railroads: Penn Central, Central of New Jersey, Lehigh Valley, Lehigh and Hudson River, Erie-Lackawanna, and Reading. Conrail has a 17,000-route-mile (34,000-track-mile) system that serves 16 Northeastern and Midwestern States, the District of Columbia, and two Canadian Provinces.

Conrail was created under a reorganization plan prepared by the United States Railway Association (USRA). The reorganization plan projected that Conrail would incur losses through 1978 but would begin earning a profit in 1979. The reorganization plan also anticipated that Conrail would need financial help to cover operating losses in its early years and to support a massive capital rehabilitation and improvements program. Accordingly, the Congress provided \$3.3 billion in Federal funds for Conrail until the company could generate enough from its own operations

to become self-sufficient. Through December 31, 1980, Conrail has net losses from operations of \$1.3 billion.

One of the primary purposes of the Federal investment in Conrail was to help pay for the rehabilitation and maintenance of the track and physical plant acquired from the predecessor railroads. A massive track rehabilitation program was necessary because the predecessor railroads had for years undermaintained the track or had performed no roadbed maintenance at all, so that the tracks were seriously deteriorated and were hurting service.

CONRAIL INVENTORY LEVELS

When Conrail began operations on April 1, 1976, it acquired an inventory of materials and supplies from the six predecessor railroads. Conrail's yearend inventory values, by major category, are shown below.

	<u>Maintenance- of-way</u>	<u>Maintenance- of-equipment</u>	<u>Miscel- laneous</u>	<u>Fuel oil</u>	<u>Total</u>
----- (millions) -----					
Dec. 1977	\$112.7	\$ 93.3	\$1.7	\$11.1	\$218.8
Dec. 1978	98.1	103.7	1.9	11.8	215.5
Dec. 1979	109.5	122.3	2.8	38.9	273.5
Dec. 1980	95.8	131.8	3.3	37.5	268.4

Conrail's purchases of materials and supplies have also grown steadily, except for 1980, as shown below.

	<u>Maintenance- of-way</u>	<u>Maintenance- of-equipment</u>	<u>Miscel- laneous</u>	<u>Fuel oil</u>	<u>Total</u>
----- (millions) -----					
1977	\$266.4	\$299.6	\$16.0	\$189.0	\$771.0
1978	287.8	291.0	16.5	188.7	784.0
1979	327.4	278.8	21.9	290.5	918.6
1980	144.9	201.5	13.9	348.9	709.2

If this data is converted to 1977 dollars to adjust for inflation, inventories and purchases were much lower than shown in the above tabulation. For example, the December 1980 inventory, expressed on a deflated or constant 1977 dollar basis, was \$189 million rather than \$268.4 million. Likewise, 1980 purchases of \$709.2 million amounted to only \$427 million in 1977 dollars.

## INVENTORY CONTROL

Conrail's inventory is made up of more than 125,000 individual line items classified as either standard or nonstandard. The maintenance-of-way inventory consists of about 14,000 standard line items. These items support Conrail's programs for maintaining and rehabilitating tracks, buildings, bridges, communications, signals, etc., and include rails, crossties, track spikes, tie plates, ballast, and spare parts for trackwork machinery. The individual items can range in price from less than a dollar for track spikes up to several thousand dollars for prefabricated switches.

### Inventory accountability and storage

Conrail's system is divided into eight regions, each consisting of several divisions. In total, there are 20 divisions that contain many field locations where most of the maintenance-of-way inventory is stored. Hundreds of field locations are positioned along the right-of-way. At December 31, 1980, about 59 percent of the maintenance-of-way inventory was stored at field locations. Another 18 percent of the maintenance-of-way inventory was located at maintenance-of-way repair shops. Conrail's Operations Department is responsible for the divisions and repair shops. The remaining 23 percent of the maintenance-of-way inventory was located at four material storage and distribution centers at Reading, Pennsylvania; South Altoona, Pennsylvania; Indianapolis, Indiana; and Columbus, Ohio. The Material and Purchasing Department controls and is responsible for material at the distribution centers. The department determines what and how much material to buy and is responsible for receiving, transferring, and custodial functions.

Conrail maintains a computerized inventory control network called the material accounting and purchasing system, or "MAPS." MAPS, which was developed by the Penn Central Railroad and became operational in 1974, is designed to keep track of the status, location, order, receipt, charges, and balances of all materials and supplies used by Conrail. An important part of the MAPS network is the stock status inventory system, which provides information on the quantities of standard material in inventory, where it is located, and what is on order. Stock status balances are updated daily based on material usage, receipt, and transfer documents submitted from Conrail field locations to MAPS input terminals. Thus, at any time, the system should be able to produce information on the quantity and location of Conrail's inventory. To minimize recordkeeping costs, Conrail's MAPS inventory system does not maintain stock status below the division engineer. This means that the individual substore inventory accounts are accumulated, summarized, and reported at the division engineer level. The Harrisburg division engineer's inventory account, for example, is comprised of nine field locations. The

only time stock status information is available for the individual field locations is when an inventory count is taken, which is currently being done annually.

Material requisitioning and reordering decisions are initiated primarily on the basis of stock status levels and are generated either automatically or manually. Inventory reorder notices are automatically produced by MAPS when stock status levels at Conrail distribution centers fall below predetermined levels. Conrail field personnel at user locations can also submit field requisitions for material as stock levels diminish. The reorder notice or field requisition is reviewed by the Material and Purchasing Department's inventory control point to determine if the item is available within Conrail's system. Requisitioned materials, which are not available within Conrail from a distribution center or field location, are then purchased from outside vendors.

#### Inventory control has improved

Shortly after its formation, Conrail began its massive rehabilitation effort, which brought about a corresponding expansion in the purchase and use of inventory items. With this increase, Conrail began to realize it had problems in inventory control and began to improve control over materials. For instance, before 1980 Conrail had a procedure that permitted vendors to be paid for items that Conrail was not sure it received. However, in May 1980 Conrail established a "receipt prior to payment" program that required a receiving report for most purchased items before a vendor's invoice would be paid. Conrail claims the program will be completed in mid-1981 when it includes payment for diesel fuel. The program has enabled Conrail to reduce its "paid-for-not-received" balance of more than \$28 million in 1976 to about \$3 million currently.

Appendix I includes a more detailed list of various actions Conrail has taken to improve inventory control. In general, we believe these actions have resulted in better control; however, further improvement is needed.

#### OBJECTIVES, SCOPE, AND METHODOLOGY

Our objective was to review and evaluate the adequacy of the physical and management controls Conrail has for its maintenance-of-way inventory and to ascertain whether the controls over inventory were weak to the extent that inventory losses, thefts, or unauthorized use could occur and not be detected. Our decision to concentrate on the maintenance-of-way inventory was influenced by inventory control problems identified by other audits or studies of Conrail. These included (1) Conrail internal audit reports, (2) USRA studies, and (3) reports prepared for Conrail management by its public accountants.

Although our review was directed at the maintenance-of-way area, numerous discussions in the report deal with Conrail's entire inventory or with a specific maintenance-of-equipment item. These discussions are included only as illustrations. We do not take a position or make conclusions or recommendations concerning the management and control of Conrail's maintenance-of-equipment or fuel oil inventories.

Detailed work on this review was conducted at Conrail's headquarters offices in Philadelphia. Work was also performed at 5 of Conrail's 20 divisions--Harrisburg, Lehigh, Philadelphia, Hoboken, and New Jersey--as well as the Reading distribution center. The divisions and the distribution center were selected because they were representative of Conrail's other locations in terms of the values of inventories maintained. We visited 26 field locations that were part of the five divisions where maintenance-of-way inventory is stored.

Because of their interest, we met with Conrail's management several times during our audit to inform them of our progress and to obtain their comments on our work. We also accompanied Conrail's internal auditors to a few inventory stores in the New Jersey and Hoboken divisions during their observation of the company's 1980 physical inventory so we could become familiar with the physical inventory process.

We reviewed Conrail's policies, regulations, and procedures dealing with the purchase of materials and supplies and management of the inventory system. We also reviewed the reports regarding inventory control and management that were issued by USRA, Conrail's public accounting firm, and internal audit groups. We relied heavily on the audit work and findings of Conrail's internal auditors and its public accountants. Because Conrail's physical inventory results already showed record accuracy problems and because Conrail's internal audits had confirmed the existence of these problems, we decided to limit the amount of detailed work we would undertake in determining how accurate Conrail's inventory records were. Accordingly, we selected for review a non-scientific sample of 97 items at two of Conrail's divisions and one distribution center. Our physical counts were compared with Conrail's inventory records, and variances were calculated. We then tried to determine reasons for variances between book inventory and actual physical counts by reviewing inventory transaction documents and discussions with Conrail personnel. To complete our physical counts, we visited every maintenance-of-way store within the selected divisions. At each store location, we were accompanied and assisted by a track supervisor or other Conrail employee. Although our selection of divisions visited and the items counted during the physical count were not based on purely scientific techniques, the results substantiate other evidence presented in this report.



During our review, we requested and obtained from Conrail various inventory records, documents, and files. In providing one file to us (an inventory file showing variances between actual counts and book values on an item-by-item basis) Conrail informed us that the files may not be accurate because of the manner in which supplemental and delayed accounting transactions were made. Conrail pointed out that it reconciles its inventory by stock account within the stores and not by individual item. Time did not permit us to determine the accuracy of the entire inventory variance files. However, we were able to establish the reliability of the data within one stock account for Conrail's 1979 inventory count.

## CHAPTER 2

### THE ACCURACY AND RELIABILITY

#### OF CONRAIL INVENTORY RECORDS

##### NEED TO BE IMPROVED

Although records of how much inventory is on hand and where it is are essential to an efficient system of control and management, Conrail's system does not provide that information. The system is designed to provide good information for management purposes, but it is not providing accurate and reliable information for a number of reasons including inadequate physical controls over inventory and inadequate control over inventory documents. (The underlying causes of these problems are discussed on page 38.) As a result, the only time Conrail knows what inventory is on hand and where it is, is when the inventory is counted--currently, once a year at September 30. During the remainder of the year, the information produced by Conrail's computerized inventory system cannot be relied upon.

An indication of the condition of Conrail's records would be the difference between the book value of Conrail's inventory at September 30 with the actual count made on that date. Conrail counts the inventory at each of its approximately 1,000 stores, compares the count with the book value, and then reports the value of the overage or shortage. The book value of Conrail's inventory at September 30, 1979, was \$249.7 million; the net count for all stores was only \$611,700 less than the book value. Conrail officials believe this is a good indication of record accuracy and that inventory is adequately controlled. We believe a better indicator of the condition of the records, however, is the total variance, regardless of whether the variance is over or under the book value. The total of these variances at September 30, 1979, was \$57.4 million, which is the amount by which Conrail adjusted its records to reflect the inventory count. The \$57.4 million variance is comprised of stores reporting shortages of about \$29 million and overages of about \$28.4 million. These figures represent a variance of 23 percent of the book inventory. The September 30, 1980, inventory count showed that the records were less accurate than in 1979. The sum of the variances for 1980 was almost 42 percent.

Conrail officials advised us that these differences were probably caused by items being shipped from one store to another without a record being made of the transfer. They stated that all items were on hand but not at the location shown in the records. We found this was not the case and that dissimilar inventory items were being offset. For example, we found that the book value for a particular type of tie plate totaled \$3.8 million for all stores but the inventory count showed that Conrail

actually possessed only \$2.1 million worth of tie plates, indicating a \$1.7 million shortage. This shortage would be offset by overages of other items such as track spikes which were over by about \$700,000.

This chapter contains other evidence of the poor condition of Conrail's records, which we believe must be corrected to produce valid information for making management decisions.

#### NEED FOR ACCURATE RECORDS

Accurate inventory records are essential to an efficient and effective system of inventory control and management. Inventory records should, at a minimum, show how much inventory is on hand at a given time, where it is, and how much is on order. This information is essential for management to make informed decisions on what, when, and how much material to buy or whether sufficient materials are already in stock. Accurate and reliable records are also a deterrent to theft and fraud. Employees are less likely to pilfer when they believe that missing items will be discovered quickly. Suppliers are less likely to attempt fraud when past dealings with the organization indicate that controls are good and records are accurate.

Conrail accounts for inventory value with a financial accounting system, while inventory quantities are maintained on the MAPS stock status system. The two systems do not use identical data bases. We found that the inventory records produced by both systems were inaccurate and unreliable.

#### PHYSICAL INVENTORY RESULTS ILLUSTRATE ACCURACY PROBLEMS

Periodically, inventory record balances must be verified by counting the items on hand. In addition to correcting the records, counts can be compared with the record balance, thereby providing a measure of record accuracy and the adequacy of controls. This process is one of management's most important tools for ensuring that inventory records are correct and that the inventory is being properly safeguarded and controlled.

Conrail conducted its first inventory count on September 30, 1976, and had counted the inventory twice each year since then, with the exception of 1980 when it only counted it once. Conrail counts the inventory twice each year because the first inventory count in September 1976 disclosed a wide variance between the actual inventory and the records and Conrail's management felt the inventory should be counted twice each year until inventory controls and record reliability improved.

The net differences between the inventory value shown on Conrail's records and the inventory value based on Conrail's count of items for each of the inventories are shown below.

Except for the April 1977 inventory count, all the net difference represented inventory shortages; that is, the inventory shown on the company's books exceeded the inventory found in the count.

<u>Date of physical inventory</u>	<u>Net inventory variance</u>
Sept. 1976	\$(12,847,390)
Apr. 1977	5,208,046
Sept. 1977	(3,216,078)
Apr. 1978	(5,902,977)
Sept. 1978	(3,892,847)
Apr. 1979	(3,796,594)
Sept. 1979	(611,700)
Sept. 1980	<u>(990,910)</u>
	<u>\$(26,050,450)</u>

The cumulative net inventory shortage of \$26 million is a significant figure in absolute terms. However, when measured against the approximately \$3.5 billion of materials and supplies purchased and consumed during the same period, the \$26 million cumulative inventory shortage represents less than 1 percent.

Conrail's vice president and controller stated that netting "overs" and "unders" to arrive at a physical inventory value to compare with the book value is the most appropriate measure of inventory control. They also said this is an accepted industry practice. They pointed out that, over the years, the net variances have been relatively small and that in itself shows that Conrail has maintained good control of its inventory. Also, no significant amount of inventory has been missing. They also pointed out that another indication of the control exercised over inventory is a comparison of the net variance with the value of materials purchased during the year. Inventory shrinkage does not arise on the date the physical inventory is taken but accumulates from the time of the last physical inventory.

We agree with Conrail's point that calculating and reporting inventory results on a net basis and comparing that figure with purchases for the year is necessary. It tells management and other interested parties that the value of the assets shown on the books actually exists. But it does not give any specific data on whether the items shown on the books actually exist or where those items are located.

We believe a better indication of the condition of the records is the gross variance, which identifies how far off the records are, regardless of whether the figure is over or under. By restricting its analysis to net variance, Conrail is failing to use a technique that can identify significant variances at many of its inventory stores that may warrant further investigation.

Net variances are not  
good indicators of inventory  
record accuracy

Conrail's September 1979 inventory count showed a net shortage of \$611,700. Conrail's records showed an inventory balance of \$249.7 million while the count was \$249.1 million. The inventory shortage of \$611,700 represented less than 1 percent of the physical inventory value. This relatively small net variance seems to indicate that Conrail's inventory records are reasonably accurate. Conrail officials told us that the small net variance is a good indication that inventory is adequately controlled. However, net variances do not provide a complete and meaningful assessment of record accuracy and controls. To illustrate, the physical inventory may show shortages of \$100 and \$200, respectively, for two stores and a \$300 overage for a third store. Looking at only the net difference, one would assume that inventory records are accurate because, although the record balances were incorrect for all three stores, the overages and shortages cancel each other out, leaving no variance at all. If, on the other hand, all three variances were totaled--regardless of whether they were positive or negative--the gross variance figure would be \$600. We believe gross physical inventory variances are a better indicator of record accuracy and inventory control performance than net variances.

When counting its inventory, Conrail accounts for and reconciles its inventory by stock account and within each store. A stock account or stock class is a grouping of similar type items. For example, various types of rail comprise one stock account; communications and signal items are in another stock account; and machinery, blowers, and compressors make up a third stock class. There are a total of 47 stock accounts.

We found that, for the September 30, 1979, inventory, physical counts for the 47 stock accounts exceeded the book value by almost \$28.4 million and that book value exceeded the physical count by \$29 million. Subtracting the total overages from total shortages resulted in a \$611,700 net variance. However, adding the variances, irrespective of whether they were positive or negative, results in an accumulated variance of \$57.4 million. It was by this amount that Conrail had to adjust its financial inventory records. The \$57.4 million represents a variance of about 23 percent from the \$249.7 million in inventory reported by the inventory records at the time of the physical count.

In a report entitled "Amtrak's Inventory and Property Controls Need Strengthening" (CED-80-13, Nov. 29, 1979), we reported that Amtrak had a gross inventory variance of about 17 percent in 1978. In comparison, Conrail's variances of 23 percent in 1979 and almost 42 percent in 1980 were significantly higher. Conrail has not established standards for judging the accuracy of its records.

To illustrate the physical inventory results at one Conrail store, the table below compares, by stock account, the September 1979 physical inventory and the book inventory for the Harrisburg division engineer's store.

Comparison of Conrail's September 1979 Inventory Count  
with the Book Inventory by Stock Account for the  
Harrisburg Division Engineer Store (note a)

<u>Stock account</u>		-----Inventory value-----		
<u>Number</u>	<u>Description</u>	<u>Accounting records</u>	<u>Inventory count</u>	<u>Difference-- physical count over/(under) accounting records</u>
010	Other track material	\$ 920,776	\$1,078,319	\$157,543
020	Communications and signals	306,431	469,984	163,552
030	Building and drainage	1,165	736	( 429)
040	Lumber, building, and bridges	37,382	14,068	( 23,314)
050	Crossing and switch ties	485,392	315,117	(170,275)
060	Bridge and turntable	682	-0-	( 682)
070	Ballast	( 25,285)	249	25,535
080	Rail	456,442	303,205	(153,237)
270	Gasoline, fuel oil, propane	10,932	776	( 10,155)
450	Small tools	15,934	8,118	( 7,815)
470	Chemicals, oxygen	10,815	11,868	1,053
490	Electrical, switches	2,600	6,275	3,674
500	Scrap	36,475	13,214	( 23,261)
Miscellaneous stock accounts		<u>(28,186)</u>	<u>8,882</u>	<u>37,068</u>
Total		<u>\$2,231,555</u>	<u>\$2,230,811</u>	<u>\$ ( 744)</u>

a/The amounts shown were obtained from a Conrail accounting report. Due to rounding, the values in the right-hand column and total values are not exact.

As can be seen from the table, there was a net difference between the physical count and the book value of only \$744 at the Harrisburg store. However, the net difference does not give a complete picture of conditions at the Harrisburg store because it ignores the overages and shortages. Combining the overages of some items of \$391,981 and shortages of others of \$392,725 produces a gross variance of \$784,706, which is the amount by which Conrail adjusted the inventory records.

Physical inventory results for  
1980 show that record accuracy  
and control have not improved

Between September 30, 1979, and September 30, 1980, Conrail reduced its inventory (except diesel fuel) by about 4.5 percent--from \$249.1 million to \$237.9 million. As was the case with the September 1979 inventory count, Conrail's September 1980 count also disclosed a relatively small net difference between the inventory value based on the physical count and the inventory value reflected on the company's books.

The accounting records placed the inventory value at \$238.9 million, while the physical count reflected an inventory value of \$237.9 million. This represented a variance (shortage) of \$1 million. However, the count also showed total overages of \$49 million and total shortages of \$50 million. Thus, the variances, without regard to whether they were positive or negative, resulted in an accumulated variance of \$99 million, which represented a variance of almost 42 percent from the \$238.9 million in inventory reported by the accounting records at the time of the inventory count. It was by \$99 million that Conrail had to adjust its accounting records. This was significantly higher than the \$57.4 million of adjustments made for the September 1979 inventory count.

The maintenance-of-way inventory reduction between 1979 and 1980 was even larger than for the inventory as a whole. The maintenance-of-way inventory went from about \$100 million in 1979 down to about \$85 million in 1980. However, the inventory shortages and overages resulted in a gross variance for maintenance-of-way items in 1980 that was more than twice as large as the variance in 1979, as shown below.

	<u>1979</u>	<u>1980</u>
Inventory overages	\$13,613,995	\$25,983,956
Inventory shortages	<u>12,042,584</u>	<u>26,099,830</u>
Total	<u>\$25,656,579</u>	<u>\$52,083,786</u>

A comparison of the physical count with the book value for maintenance-of-way items showed a significant variance--25 percent in 1979 and 61 percent in 1980. In view of the large increase in gross variances between 1979 and 1980, it appears that inventory record inaccuracies have increased substantially.

Conrail's assistant controller for expenditure accounting advised us that portions of the variances were due to methods Conrail uses to price its inventory. He stated that items are taken into inventory at purchase price but are withdrawn from inventory at a system average price that may be higher or lower than the purchase price. To estimate the impact of inventory

pricing on the gross inventory variances, Conrail performed an analysis of its 1980 inventory data. The analysis could not be done for 1979 because of a lack of data. The same Conrail official advised us that the analysis showed that inventory pricing represented almost \$29 million, or about 29 percent, of the 1980 gross variance of \$99 million. The official stated that if items had been taken into and withdrawn from inventory at the same prices, the \$99 million gross variance for 1980 would be \$29 million less, or \$70 million. It is important to note that this information was presented to us after our review was completed. Therefore, we did not have time to evaluate Conrail's analysis either conceptually or to determine if, or to what extent, pricing affects the variances.

Net variances result from  
offsetting the variances of  
many dissimilar inventory items

We obtained from Conrail a computer file containing data that compared Conrail's September 30, 1979, inventory count to its book inventory item for item. The purpose of obtaining this information was to show that Conrail's systemwide net inventory variance of \$611,700 was, essentially, an accumulation of the variances (overages and shortages) of the more than 125,000 individual line items that Conrail has in inventory. However, in furnishing us the inventory variance computer file, Conrail noted that it reconciles inventory by stock account within store and not on an individual item basis. Conrail cautioned that the inventory variance file would be of limited value if we did not consider other recorded transactions (both manual and mechanical) relating to the inventory reconciliation process. In addition, Conrail officials, including the vice president and controller, stated that although the company reconciles inventory by stock account and not by individual items, it is certain that both the specific inventory part and its value actually exist as shown in the records.

Rather than attempt to reconcile all inventory items, we decided to limit ourselves to the approximately 3,800 items in the stock account for "other track material." On a systemwide basis, there was a net variance (shortage) of \$126,633 for this stock account based on a book value of \$37,390,030 compared to a physical inventory value of \$37,263,397. We found, however, that the net variance of \$126,633 was an accumulation of the variances (both overages and shortages) for all 3,800 items in the stock account for other track material. For example, there was a systemwide shortage of a particular type of tie plate of almost \$1.7 million based on a book value of \$3.8 million and a physical inventory value of \$2.1 million. However, partially offsetting the shortage of tie plates was an overage of track spikes amounting to \$700,000. This offsetting of values was repeated hundreds of times just for the items in the stock



account for other track materials. Therefore, although the book value of the stock account is within 1 percent of the physical value, the items do not necessarily exist, because the value of unlike items is being offset.

In addition, Conrail developed a program in 1979 that enabled it to identify the book value of specific inventory items for comparison with the physical inventory value for the same items. Conrail compared the April 30, 1979, physical and book inventory values for traction motors, which are maintenance-of-equipment items. This analysis, covering 17 different types of traction motors, is shown in the following table.

The analysis shows that there was an overall shortage of 193 traction motors and that the missing items had a value of \$844,378. The shortage for one kind of traction motor, number 33503168, was \$1,042,938, which exceeded the net shortage for all items. The sum of all the differences, regardless of whether they were overages or shortages, was \$3,812,532. The analysis also points out that for 5 of the 17 types of traction motors, the book inventory showed a negative onhand quantity and value. As discussed elsewhere in this report (see p. 33), negative inventory balances in Conrail's records are quite common and provide additional evidence of the inaccuracy of the inventory records.

Conrail provided the above analysis on traction motors to USRA in August 1979 and noted that greater inventory control was needed. Conrail also noted that it was having its material management personnel contact material custodians in the field to determine what actions could and were being taken to correct the deficiencies shown by the analysis. We learned from Conrail's internal auditors that the company implemented special control procedures for traction motors in late 1979. The internal auditors are of the opinion that if the procedures are being followed, the traction motor inventory is being adequately controlled. The internal auditors plan to review the procedures and controls sometime in the future.

#### OTHER INDICATIONS OF INVENTORY RECORD INACCURACY

Other indications of Conrail's inventory record inaccuracy include the results of our test counts of inventory items, the findings reported by Conrail's internal auditors, and the existence of negative inventory record balances.

#### Our physical counts show inventory records are inaccurate

We selected 97 maintenance-of-way items maintained at three inventory stores, counted the items, and compared our counts with the quantities shown in Conrail's stock status inventory

Comparison of April 30, 1979, Physical Inventory with  
Book Inventory for Traction Motors

Conrail Item number	Physical inventory		Book inventory		Difference	
	Quantity	Value	Quantity	Value	Quantity	Value
33503028	48	\$ 312,550.08	50	\$ 334,948.10	(2)	\$ ( 13,398.02)
33503101	55	325,858.50	(2)	(11,849.80)	57	337,707.90
33503127	70	365,132.00	100	516,816.80	(30)	( 160,684.80)
33503135	1	2,962.67	1	2,962.67	0	0
33503143	34	245,465.38	35	262,854.63	(1)	(17,389.25)
33503168	28	219,565.92	161	1,262,504.04	(133)	(1,042,938.12)
33503176	18	95,358.96	89	471,497.08	(71)	(376,138.12)
33503192	19	133,039.71	(58)	(405,226.13)	77	538,265.84
33503671	4	22,347.48	(72)	(402,254.64)	76	424,602.12
33503754	2	3,632.98	(9)	(16,348.41)	(11)	19,981.39
33503796	37	81,370.03	62	136,349.78	(25)	(54,979.75)
33503846	15	61,319.85	53	216,663.47	(38)	(155,343.62)
33503903	2	3,833.14	3	5,749.71	(1)	(1,916.57)
33503911	4	8,838.92	(55)	(121,535.15)	59	130,374.07
33503929	15	33,145.95	0	0	15	33,145.95
33503945	90	243,369.00	277	749,035.70	(187)	(505,666.70)
33503986	6	13,258.38	6	13,258.38	0	0
<b>Total</b>	<b>448</b>	<b>\$2,171,048.95</b>	<b>641</b>	<b>\$3,015,426.63</b>	<b>(193)</b>	<b>\$ (844,377.68)</b>

records. Items were selected that had relatively high dollar values and low turnover. Relatively low turnover items were chosen because we felt that would facilitate counting and also make it easier to reconcile differences. We also tried to determine why our counts and the inventory record balances differed. We were accompanied and assisted by Conrail personnel during our test counts at all inventory locations, and they agreed with our test counts. Overall, we found that our count and the inventory records agreed for only 18--or 19 percent--of the 97 items. On an individual store basis, we found that Conrail's records had accuracy rates of 16 percent at the Lehigh division, 20 percent at the Reading distribution center, and 18 percent at the Harrisburg division.

The results of our physical counts, which were performed in June and July 1980, were very close to the findings reported by Conrail's internal auditors a year earlier. In a June 1979 physical count of maintenance-of-way items at two inventory store locations, the internal auditors found that Conrail's records and the auditors' physical counts agreed for only 28 percent of the items included in their test. The internal auditors' findings are discussed in more detail on page 20.

A summary schedule and a brief discussion of the results of our physical counts at each of the inventory stores is discussed below.

<u>Division</u>	<u>Number of items counted</u>	<u>Stock status value</u>	<u>Physical count value</u>	<u>Value difference</u>	<u>Items more than stock status</u>	<u>Items less than stock status</u>	<u>Items equal to stock status</u>
Harrisburg	17	\$114,165	\$ 74,668	\$( 39,497)	5	9	3
Lehigh	31	156,589	182,114	25,525	14	12	5
Reading distribution center	49	282,347	165,794	(116,553)	5	34	10

#### Harrisburg division

The Harrisburg division engineer was responsible for a maintenance-of-way inventory of materials and supplies which, at September 30, 1980, totaled \$1.2 million. The materials and supplies were stored at nine different locations or substores, each having a unique store code number.

We selected 17 individual track material items, such as compromise bars, frogs, and panel switches, for a physical count and comparison with Conrail's stock status balances. The results are summarized in the schedule above. We also noted, however, that the gross dollar variance between our count and the stock status (that is, the total of all variances regardless of whether they represented overages or shortages) was \$62,270 as compared with the net difference of \$39,497.

The material engineer at the Harrisburg division store could not explain the differences between the inventory records quantities and our physical counts for the 14 items. However, it was his overall feeling that the differences we identified were due largely to Conrail's inadequate physical and document control over materials and inventories. He said that the inventory at the Harrisburg division is dispersed over an area of hundreds of miles and that most of it is not secured or adequately safeguarded.

When materials are received from a vendor at one of the division's inventory sublocations, the division engineer usually cannot be there to count the items to ensure that they had actually been ordered and that they are not defective. Instead, he must rely on a track supervisor, or anyone else who happens to be there, to perform these functions for him and then inform him so that he can sign the receiving report. A similar problem exists with withdrawal of materials from inventory for use. Because the materials are geographically dispersed and generally unsecured, materials can be withdrawn from inventory without anyone's knowledge and the person withdrawing the material may forget to inform the material engineer. Consequently, the material would not be deducted from the store's balance and charged to the project on which it was used. Conrail officials advised us that, with the implementation of the maintenance-of-way material yard concept on each division in 1981, this control problem should be largely alleviated because materials will be shipped from vendors and distribution centers directly to maintenance-of-way yards and not to track supervisors.

#### Lehigh division

The Lehigh division engineer was responsible for a maintenance-of-way inventory of materials and supplies which, at September 30, 1980, totaled about \$900,000. The inventory was stored at five different locations, or substores, each having a unique store code number.

We selected 31 individual line items for a physical count and comparison with Conrail's stock status records. As previously discussed, Conrail maintains stock status information at the division engineer level but not at the track supervisor or substore levels. Consequently, for each item selected for review, we had to look for and count the items at all locations at the Lehigh division because the stock status did not provide sublocation

information. The total dollar variances between our count and Conrail's inventory records--which are summarized above--was \$144,812, or about 92 percent of the value presented in Conrail's records. This variance of \$144,812 compares with the net variance of \$25,525.

#### Reading distribution center

Conrail currently maintains four material distribution centers that receive, store, and distribute maintenance-of-way items. The centers, which maintain about the same inventory levels, are located at Reading, Pennsylvania; Altoona, Pennsylvania; Indianapolis, Indiana; and Columbus, Ohio; and serve Conrail activities in designated geographic areas.

The Reading facility, at September 30, 1980, had an inventory valued at about \$9.2 million, of which about half represented maintenance-of-way items. The Reading facility is situated on several acres of ground and includes a warehouse for inside storage of some items. The entire facility appeared to be reasonably well secured and well organized. The control of materials, at least from a physical standpoint, seemed to be much better than we found at other field locations we visited.

We counted 49 maintenance-of-way items and compared them with Conrail's stock status records. The 49 items consisted of 20 track material items, such as frogs, guard rails, and switch points, and 29 communications and signals items, such as transformers, crossing gates, and portable telephones.

Conrail personnel at Reading told us that, in addition to the computer-produced stock status inventory records, they maintained manual inventory records for all track material items. This practice was adopted, according to a Conrail official, because the automated stock status inventory records were not timely. In our counts at Reading, we also tested the accuracy of the manual inventory records for the 20 track material items. According to Conrail's records, the gross dollar variances between our counts and the stock status records were \$128,492, or about 46 percent of the value of the items, at the time of our review.

For 30 of the 39 items for which our counts and Conrail's stock status balances did not agree, we asked Conrail officials at the distribution center if they could explain the variance. The following explanations were given.

<u>Conrail's explanation for variance</u>	<u>Frequency of occurrence</u>
(a) Receipt of item at Reading was recorded in inventory records before actual receipt of item.	4
(b) No explanation.	2
(c) Items were not counted correctly by GAO.	16
(d) Items were recorded transferred into Reading months before GAO's visit but actually had not arrived at time of GAO visit.	3
(e) Items were transferred out, but inventory records were not adjusted.	3
(f) Item was transferred out, but the inventory record was coded incorrectly.	1
(g) Item coded incorrectly.	1

According to Material and Purchasing Department officials at Conrail headquarters, the 16 items above were not counted correctly by us because, at the time of the count, Conrail was in the process of relocating inventory to accommodate a bin locator system and consequently we did not count all items. It should be noted, however, that during our counts we were accompanied at all times by at least one Conrail employee, usually a distribution center supervisor, or by another employee who agreed with our counts at the time.

The manual inventory records kept at the Reading distribution center for track material items, proved to be more accurate than the MAPS inventory records. For the 20 track material items included in our count, the manual records were correct for 11 items, or more than 50 percent. The MAPS records, by contrast, were correct for only six items, or about 30 percent. We did not attempt to obtain reasons for the variances between our counts and the manual inventory records.

Conrail Material and Purchasing Department officials believe that the manual records are more accurate than the stock status because the manual cards are not influenced by intransit inventory items (items (a) and (d) in the above tabulation) or document delays (item (e)).

Several months after our initial count at the Reading distribution center, we returned to conduct a second count of 30 of the original 49 items. The 30 items, which comprised 14 track material items and 16 communications and signals items, were the

same 30 items for which we had sought an explanation of the variance after the initial count. Our second physical count was also conducted about 2 weeks after Conrail had completed its own annual physical inventory, and the stock status records had been revised to show Conrail's counts.

Our second count agreed with the MAPS stock status balances for 21 of the 30 items, or 70 percent; thus, for 9 items, our count and the stock status records did not agree. On four of the nine items for which differences existed, the differences were found to be caused by errors in Conrail's inventory count. These items were not counted correctly 2 weeks earlier during Conrail's annual inventory count. For three of the nine items, the differences existed because the items had been transferred out of Reading, but a document evidencing the transfer had not been completed and processed through MAPS. For the remaining two items, the reason for the difference could not be explained.

Conrail's internal auditors found  
that inventory records were inaccurate  
and unreliable

In December 1979 Conrail's internal auditors completed a comprehensive review of maintenance-of-way material. The auditors examined the procedures and controls over the purchasing, receipt, distribution, usage, and requisitioning of maintenance-of-way materials as well as the accumulation and recording of material transactions and processing of related vendor invoices for payment.

The auditors concluded that:

- Procedures and controls over receipt, distribution, and usage of maintenance-of-way materials were not adequate because they did not provide reasonable assurance that the transactions were reported or when reported, were not reported accurately and on a timely basis.
- Procedures and controls over requisitioning of maintenance-of-way materials were not adequate because they were dependent on the MAPS stock status, which the auditors found to be unreliable.
- Procedures and controls over the processing of vendor invoices were not adequate because they allowed invoices to be paid before receipt verification.

The internal auditors identified two major weaknesses that they felt were the underlying causes for the lack of adequate procedures and controls over maintenance-of-way materials. First, they identified a lack of designated responsibilities for reporting material transactions such as receipt and usage and, second, they found a lack of timely reporting of material transactions.

The auditors noted that the responsibility for the physical control of material was not vested in specific individuals at each store location. This covered time from when an item was received from a vendor, or another Conrail inventory location, until the item was withdrawn for use and also applied to preparation of the material transaction documents. The auditors noted that, at each store location visited, they found that various individuals were preparing receipt and usage documents and that materials received from other Conrail locations were not receipted for at all.

#### Negative inventory record balances

Obviously, it is physically impossible to have a negative number of items on hand. However, Conrail's inventory records indicate that, at any specific time, many items have a negative quantity balance. Conrail's records do not permit a determination of the total value of negative inventory balances or the total number of items with negative quantities. However, even a cursory inspection of the material transaction log reveals that negative stock status balances for specific items are common. In addition, we noted that Conrail's internal auditing and accounting controls group have found that the MAPS stock status is often in error with "frequent negative on-hand balances" registered on the reports.

Negative record balances can occur for several reasons including (1) failing to prepare or record receiving reports and later issuing the items, (2) processing receiving reports late, and (3) making errors in preparing input documents or in entering data into the MAPS system.

If custodians do not submit receipts for items ordered and received by Conrail from its vendors, these items are in Conrail's inventory but they are not recorded in the stock status. If these items are withdrawn from the store for use and the custodian submits a usage document, the stock status balance would be reduced. A negative balance can occur if the recorded usage for specific material is greater than the stock status balance for that material. This situation has been reported by both Conrail's internal auditors and the accounting controls group. The lack of receipting for material is also evidenced by the existence of a "paid for, not received account," whereby Conrail paid for items that are not recorded as received. A "receipt prior to payment" program was instituted by Conrail in May 1980 that has helped alleviate this problem. (See p. 4.)

Our review of Conrail's inventory records has also shown that another cause for negative record balances has been the failure to process documents promptly. For instance, we reviewed 66 receipt documents submitted to the MAPS input center in June 1980 for items in two stock classes. Of the 66 documents we



examined, there were many that indicated only a 2- or 3-day delay between receipt of the item and submission of the receipt document to the input center. However, longer delays were very frequent, ranging from over 1 week to several months. In three cases, the delay was almost 4 months. The average delay for submission of receipt documents for the 66 items was about 20 days.

Conrail maintains several reports that show the average number of days from initiation of a transaction until it is entered into the computer. A sample of one of these reports for June 1980 indicates that the average delay during May 1980 was 10 days. Although many transactions were put into the MAPS system within a few days of their initiation, delays over 2 weeks were common. Some of the delays were as long as 4 weeks with a few approaching 2 months.

Both Conrail's internal auditing and accounting controls group found that one of the causes of negative stock status errors was the "failure to process documents or failure to process them in a timely manner." Another reason for negative inventory balances is errors in preparing input documents or errors made as the data is entered into the MAPS system (keypunching errors). Conrail's accounting controls group, in a report issued in January 1981, stated that keypunching and document preparation errors were major causes of negative inventory balances. In addition, Conrail officials conceded that mistakes in document preparation and keypunch errors are a problem. Conrail implemented a batch totaling system in July 1981 that it believes will reduce keypunch errors. We did not have an opportunity to evaluate this system.

Negative record balances are an indicator that inventory records are inaccurate. This condition means not only, as indicated in a Conrail report, that "field personnel often have little faith in reported balances," but, more importantly, that inventory records cannot be used to make reliable purchasing or management decisions either locally or systemwide.

Conrail is placing greater emphasis on clearing negative balances. In addition, Conrail is currently in the process of setting up maintenance-of-way material storage yards in each division, and new procedures pinpointing the responsibility for completing material transaction documents have been installed. These actions will go a long way toward preventing negative balances.

INVESTIGATION AND EVALUATION OF  
PHYSICAL INVENTORY VARIANCES  
HAVE BEEN LIMITED

Sound management practice dictates that significant variances between the physical inventory counts and the record balances be investigated to determine how and why the variances occurred and what should be done to correct them. Analyzing variances can

- provide evidence of failures in the control system and pinpoint where improvements can be made;
- reduce similar discrepancies in the future;
- ensure that proper adjustments have been made; and
- evaluate, for corrective action, indicators of trends or system problems.

Once the causes of the discrepancies have been determined, they should be classified, analyzed, and evaluated. The results, along with recommended corrective action, should be summarized and reported to top management.

Conrail's finance manual states that the controller's material accounting department is responsible for investigating and correcting all error listings as well as reconciling the book balance with the physical inventory. The manual also states that the material and purchasing department will validate reasons for significant differences between physical and book inventories. However, the manual does not establish criteria for judging the accuracy of inventory records. Conrail officials could not explain why they had not established standards but said they plan to do so in the future.

In spite of the requirements of Conrail's finance manual, we found that Conrail's investigation and evaluation of inventory variances have been limited. After finishing the inventory count, the material accounting department prepares a comparative analysis report that details the inventory results by class accounts for every store type (maintenance-of-way, maintenance-of-equipment, distribution centers, etc.) down to the division level. This analysis also shows the variance between physical inventory and book inventory, whether positive or negative. The report also summarizes the individual account variances first by store, then by store type (a total of all stores in a particular category, such as maintenance-of-way stores), and finally arrives at a systemwide net variance. This total net variance is considered by Conrail's top management to be the best measure of inventory control from an audit point of view.

In addition to the comparative analysis report, the material accounting department prepares a list of the 15 stores with the

largest net dollar inventory variances, either overages or shortages. For the 1980 physical inventory, these variances ranged from a \$4.3 million shortage at one store to a \$3.5 million overage at another. The total of the 1980 net inventory variances for these 15 stores was \$22.7 million. It also represented a 100-percent increase over the October 1979 physical inventory, when the total net variances for 15 stores was about \$11.4 million. The variance data is provided to Conrail's management. However, managers for these maintenance-of-way stores are not asked to explain why the variances occurred or what should be done to correct them.

We believe Conrail needs to investigate at least a representative number of its physical inventory variances to provide reasonable coverage of the total number and type of variances so that controls can be properly assessed. Procedures already in place could be strengthened to (1) specify which variances are to be researched and to what depth, (2) require that the results be analyzed, evaluated, and reported to management with recommendations for needed corrective action, and (3) require the use of gross variances to determine the stores with the largest variances. Conrail now uses net variances which, in our opinion, can mask the conditions at a particular store. For example, the Harrisburg division store, mentioned earlier, had a net variance of only \$744 while the gross variance was \$784,706.

#### CAUSES OF RECORD INACCURACIES

Although the causes of record inaccuracy have been difficult to validate, we believe there are two underlying causes of inventory record inaccuracies: (1) inadequate physical control over the inventory and (2) inadequate controls over preparing or recording inventory transaction documents.

##### Inadequate physical controls over inventory

As discussed in chapter 3, the physical control of inventory is not adequate because there are far too many inventory store locations and adequate security and custodial oversight is lacking at many locations. We believe adequate physical control of the inventory is a prerequisite to accurate inventory records.

Maintenance-of-way materials are stored at hundreds of locations on the Conrail system. In conducting physical counts of inventory items, we visited 26 of these locations and found that (1) there was no current and reliable record of items on hand, (2) materials were not arranged in an orderly fashion but, in many cases, were scattered along the right-of-way sometimes for hundreds of yards, (3) material engineers, track supervisors, or other personnel were not sure whether a particular item was in stock and, if so, where it was, and (4) the locations generally

were unattended, unsecured, and open to anyone who wanted to take material.

The dispersion of maintenance-of-way inventory at hundreds of locations throughout Conrail's system makes the materials convenient for use by track maintenance personnel. However, in view of the weak controls and inadequate records that exist, such a system does not provide for effective inventory control. Accordingly, we believe it is important that Conrail improve the physical controls over inventory. One way to do this would be to reduce the number of maintenance-of-way inventory locations and provide adequate security measures, such as fencing and lighting, to safeguard the inventory.

Conrail has undertaken a program to consolidate and reduce the number of inventory locations by establishing maintenance-of-way material yards in each division. For example, in Conrail's central region, which is made up of 5 divisions and has 44 inventory stores, Conrail is establishing a centralized store for each division. When this process is completed, the number of maintenance-of-way stores in the central region will have been reduced from 44 to 5. (See item k of app. I for additional discussion of this program).

Inadequate control over  
preparing and processing  
inventory transaction documents

The inadequate control of inventory transaction documents, such as those used for the receipts, transfers, and usage of materials, is perhaps the most important underlying cause of inaccurate records. The lack of document control was evidenced by several direct causes, including

- failure of Conrail field personnel to complete and process material transaction documents,
- delays in completing and processing material transaction documents,
- lack of a procedure requiring material transfers between Conrail divisions to be documented and receipts to be acknowledged, and
- absence of stock status inventory records below the division level.

We believe the failure of Conrail field personnel to complete and process documents is the single most important cause of inaccurate records. One reason documents are not completed is the poor physical control of inventory mentioned above. With poor physical control and security, including lack of custodial oversight, there is no assurance that transaction documents

will be processed when required. Another reason is the lack of designated responsibilities for reporting material transactions at Conrail field locations. This was cited by Conrail's internal auditors in December 1979 as a major inventory control weakness. The corrective action Conrail took was to publish, in May 1980, a uniform procedure for all maintenance-of-way personnel to follow in reporting material transactions. Under this procedure, individuals within the maintenance-of-way department (the track supervisors, material engineer, and division engineer) were given specific responsibilities.

Although this procedure has not been in effect long enough for us to evaluate its effectiveness, we doubt that it will achieve its intended purpose of getting field personnel to complete and process material transaction documents. We believe a more fundamental problem exists with the way the maintenance-of-way inventory management function is organized within Conrail. Division engineers, material engineers, and track supervisors, who work for Conrail's operations department, serve as inventory custodians at maintenance-of-way field locations. That is, they are responsible for storing and safeguarding the materials as well as counting it during inventory counts. These same people also order, receive, transfer, and use the materials. We believe that having both the user and custodial responsibilities for inventory carried out by the same department does not provide for an adequate system of checks and balances on that department's activities. One way of separating these responsibilities would be for the material and purchasing department to assume the custodial functions for maintenance-of-way material as it does for maintenance-of-equipment items.

#### Clerical and keypunch errors

We attempted to trace errors by selecting items with negative balances and comparing the information entered in the computer with the actual entry documents (requisitions or transfers), but we could not find any keypunch or document errors. However, several Conrail officials conceded that mistakes in document preparation, as well as keypunch errors, are a problem. In addition, in a report dated January 1981, Conrail's accounting controls group indicated that keypunching and document preparation errors are major causes of negative inventory balances.

#### CONCLUSIONS

The accuracy and reliability of Conrail's inventory records need to be improved. Conrail maintains an automated inventory record system that is intended to assist in managing and controlling inventory by providing information such as how much inventory is on hand and where it is located. Conrail's system, however, is not producing accurate and reliable information for a number of reasons, including inadequate physical control of inventory and poor control over document preparation. In addition,

inventory records are not maintained for many field locations. As a result, the only time Conrail knows what it has in inventory and where it is located is when the inventory is counted, currently once each year. During the remainder of the year, the information produced by Conrail's system is not reliable.

Conrail's inventory control system does not give management sufficient information to (1) adequately evaluate inventory record accuracy, (2) identify the causes of inaccurate records, and (3) determine corrective action needed. The physical inventories have been used as a primary means of inventory control rather than as a check on the accuracy of the automated inventory control system. The physical inventory has not been used effectively as a management tool because net physical inventory results do not adequately indicate inventory record accuracy and control. Gross inventory variances, a combination of overages and shortages, would provide a better indication of accuracy and control.

Conrail needs to establish and monitor specific accuracy objectives against which management can assess record accuracy and how well the inventory is being controlled. In developing accuracy objectives, Conrail ought to weigh the benefits against the costs of obtaining increased record accuracy. While complete accuracy is not possible or even desirable, improved accuracy and reliability are needed for Conrail to adequately control and manage its inventory.

Most maintenance-of-way materials are ordered, received, transferred, stored, counted, and used by persons in a single Conrail department. Having both the user and custodial responsibilities for inventory carried out within the same department does not provide for an adequate system of checks and balances on that department's activities. Conrail needs to separate these functions for better control.

#### RECOMMENDATIONS

We recommend that the chairman and chief executive officer of Conrail:

- Establish and monitor reasonable inventory record accuracy standards based on the percentage of gross physical inventory variance.
- Maintain stock status inventory records for each inventory store location.
- Revise procedures to provide for the investigation and evaluation of a representative number of gross, rather than net, physical inventory variances at each store. The procedures should provide guidance on the dollar values of variances to be investigated and should also require

that the causes be identified and reported to top management together with recommendations for corrective action.

--Change the organizational structure so that users and custodians of maintenance-of-way materials are not in the same department.

CONRAIL COMMENTS  
AND OUR EVALUATION

Conrail agreed with us that further improvement is needed in inventory control and management. Conrail stated that various actions it has taken or has in process will materially improve its inventory control and management system and thereby resolve many of the issues addressed in this report. A specific action cited by Conrail is the program to consolidate and reduce the number of inventory control points. Conrail was implementing this program during our review, and consequently we were unable to evaluate it. However, we agree with Conrail that this program should strengthen physical control of the inventory and improve record accuracy if it is implemented properly.

We do not believe that the action planned by Conrail in response to one of our recommendations will be effective. Our draft report recommended that Conrail change its organizational structure so that users and custodians of maintenance-of-way materials are not in the same department. In commenting on our recommendation, Conrail said that it is expanding the division material engineer's duties to include full responsibility for physical control of each division's centralized maintenance-of-way support yard as well as responsibility for the accuracy and timeliness of material transaction documentation. We do not believe that Conrail's plan to expand the duties of the division material engineer as discussed above adequately addresses our recommendation. The fundamental problem is that persons working in a single Conrail department are responsible for ordering, receiving, transferring, storing, counting, and using most maintenance-of-way materials. Under such an organizational setup, controls are weak because there are not adequate checks and balances on the department's activities. We believe the people who use the maintenance-of-way materials should not be working for, nor should they be in the same department as, the people who order, receive, store, and transfer the materials as is presently the case. Accordingly, we believe to achieve better control Conrail needs to change its organizational structure so that the users and custodians of maintenance-of-way materials are in different departments. One way of separating these functions would be for the material and purchasing department to assume the custodial functions as it does for maintenance-of-equipment items.

Conrail also cited some general concerns it had about the issues raised in this report.

One area of general concern involves the method we used in the report to measure inventory variances, whereby we combined inventory overages and shortages to arrive at gross variances. Conrail stated that our method of measurement compounded the problem. Conrail contends that its method of measuring inventory variances on a net basis is typical industry practice and consistent with generally accepted auditing standards.

We agree with Conrail that it is necessary to calculate and report inventory results on a net basis. For accounting and auditing purposes, it tells management and other interested parties that the value of the assets shown on the books actually exists. However, it does not give any specific data on whether the items shown on the books actually exist or where those items are located. We believe a better indication of the condition of the records is the gross variance which shows how far off the records are, regardless of whether the figure is over or under. By restricting its analysis to net variances, Conrail may fail to identify and investigate significant variances at many of its inventory stores because net variance analysis does not provide a complete and meaningful picture of conditions at individual stores. In order to adequately determine whether record problems exist at a particular store, we believe Conrail needs to make more use of gross variances.

Conrail further contends that to whatever extent inventory variances have existed, they have had only a minimal effect on Conrail's costs. We do not agree with this contention. As discussed in chapter 4, based on a limited test of purchase orders placed by Conrail during a 2-month period, we found that Conrail made unnecessary purchases of materials totaling \$68,000 because Conrail's records failed to show there were surplus quantities of the same materials in inventory. In addition, we identified other areas in which Conrail is incurring additional costs because of poor inventory controls and inaccurate records.

Another general area of concern to Conrail involves the time frame upon which our report is based. Conrail stated that our report is based primarily on 1979 data and, to a lesser extent, 1980 data. Conrail recognizes that a report of this type requires the collection of extensive existing data. But Conrail believes that inventory controls and management have improved since 1979 and that the report therefore should be considered as describing certain past deficiencies, many of which have been corrected. We do not agree with Conrail's contention. As discussed in the report, Conrail's inventory record accuracy did not improve between 1979 and 1980 but actually worsened significantly. In our opinion, this trend indicates that Conrail still has significant inventory control problems.



## CHAPTER 3

### INVENTORY CONTROLS NEED TO BE STRENGTHENED

Conrail needs stronger controls to ensure that it receives what it orders, pays the proper amount, and protects materials and uses them only for authorized purposes. We found that materials are not properly protected because they are stored at too many locations. Conrail officials told us they were planning to consolidate many of the storage locations. We also found that Conrail's procedures for transferring materials from one location to another are not adequate and Conrail does not have an accurate record of items that are on order.

#### IMPORTANCE OF ADEQUATE INVENTORY CONTROLS

An organization needs controls to ensure that it receives what it orders and pays for and that assets once obtained are protected and used only for authorized purposes. These controls involve (1) accepting deliveries from vendors only when a valid purchase order exists and has not already been filled, (2) inspecting and counting items when they are received to verify what has been received and how much, (3) preparing a document to acknowledge officially and report the receipt and forwarding it to the appropriate personnel, such as accounts payable, for action, (4) promptly moving items to the proper storage locations, (5) protecting the inventory against damage, theft, or pilferages, and (6) issuing items only under proper authorization. In addition, transfers from one storage location to another should be verified and documented and payments to vendors should be made after it has been determined that the items were properly ordered and their receipt was documented. Proper inventory control is twofold: control of the assets and control of the documents recording the transactions.

#### INVENTORY CONTROL WEAKNESSES HAVE BEEN A CONTINUING PROBLEM

Conrail has had problems managing and controlling its inventory since the company began operations in April 1976. In 1976 Conrail's public accountants reported to Conrail's management that the company had a basic lack of physical control over inventories that was made worse by its large track and equipment rehabilitation programs. The accounting firm reported that Conrail needed to improve both its field reporting of inventory usage and the overall inventory reporting and accounting system.

Major inventory control weaknesses were cited by Conrail's public accountants again in 1977, 1978, and 1979 in reports to Conrail management. Conrail's internal auditors also identified

problems. Conrail has taken a number of actions in connection with the weaknesses identified and plans other steps to improve inventory control. (These actions are summarized in app. I.) In general, we believe these actions have resulted in somewhat better inventory control. However, as discussed in this report, Conrail's inventory records and controls still require substantial improvement.

INVENTORY STORAGE AND ISSUING  
CONTROLS ARE NOT ADEQUATE

Conrail's maintenance-of-way inventory, valued at about \$85 million at September 30, 1980, was stored at four major distribution centers, maintenance-of-way repair shops, and hundreds of field locations. More than half of the maintenance-of-way inventory is stored at the field locations, which are essentially trackside areas scattered along Conrail's right-of-way.

We visited 26 field locations during the course of our audit and found that Conrail did not have adequate control over the storage and issuance of maintenance-of-way materials at most of the locations. We observed the following conditions at the field locations visited:

- Materials were not well organized. We observed, at 12 locations, that materials were not organized or stockpiled in an orderly fashion but were strewn along the right-of-way sometimes for several hundred yards. Also, we found materials that were not readily visible because they were located 30 to 40 feet from the track in dense grass or weeds. During our test counts of inventory items, Conrail personnel in many instances were not sure where a particular item was located.
- Materials were not adequately identified. In assisting us with our test counts, Conrail personnel had difficulty directing us to the proper inventory item because the item name and/or identifying number had rusted to the point that it was not on the item or was not legible.
- The inventory was not adequately fenced and lighted to ensure protection from theft or unauthorized use. In addition, in many cases there either was no inventory custodian or the custodian was not in a position to monitor the withdrawal of material.

Conrail's internal auditors and the accounting controls group also observed that the inventory was not adequately safeguarded. In their observation of the physical inventory process in September 1979, the internal auditors noted that

physical safeguarding of inventory was not adequate at several of the inventory locations. The accounting controls group also observed in a January 1981 report that there was a lack of physical security at many locations and that this made it difficult for the material engineers to exercise physical control over the material.

As discussed in chapter 2, one of the reasons Conrail's inventory records are inaccurate is because Conrail field personnel do not document inventory transactions such as material receipts and issues. Not preparing or not properly preparing and processing issue documents results in inaccurate records of onhand quantities and usage. Since inventory reorder points and stocking levels are based largely on past use, unrecorded or improperly recorded issues can adversely affect reordering and stocking level decisions. Failure to prepare issue documents may also make it impossible to determine whether missing items were stolen, misplaced, or used for authorized purposes. Poor control over issuing may lead management to believe that items are being used for authorized purposes but simply not recorded. As a result, theft may go undetected or the items may not actually enter the inventory.

Based on the results of our test counts of inventory items, our discussions with Conrail field personnel, and the findings of Conrail's internal auditors, we believed Conrail's inventory storage and issuing controls were inadequate. We discussed these matters with Conrail officials in October 1980. These officials, which included six vice presidents, acknowledged that the company has had inventory control problems but felt it had made substantial progress since Conrail began operations in 1976.

These officials also told us of a new program they were just beginning which they felt would correct many of the inventory control problems we noted. Under the program, Conrail would be gathering all maintenance-of-way materials that are currently stored at several hundred field locations throughout the Conrail system and transferring them to a single storage yard within each of Conrail's 20 divisions. Each yard would be secured and would include fencing and lighting where necessary. Receipts, transfers, and withdrawals of material would be monitored by a custodian who would also be responsible for completing the necessary paperwork. The officials said that the program could result in a reduction of the maintenance-of-way inventory by millions of dollars. Conrail expects the program to be fully operational in 1981. We agree with the overall purpose of this program--which is to centralize the storage and achieve better control of maintenance-of-way materials at the division level.

CONTROLS OVER TRANSFERS OF  
INVENTORY ITEMS ARE NOT ADEQUATE

Transfers of inventory items from one inventory store location to another should be controlled and recorded accurately. The sending store's onhand balance should be reduced and the receiving store's increased. Under Conrail's present system, the sending store is supposed to enter the transfer transaction into the MAPS system by means of a transfer document. The MAPS system processes the data as a transfer out for the sending store and automatically as a transfer in for the receiving location. Thus, the onhand balances on the stock status inventory records for both stores are updated by the one document submitted by the sending store. Conrail's procedures, however, do not require that someone at the receiving store attest to the receipt of material received from other Conrail locations. By not receipting for these shipments, Conrail loses control over the movement of materials within the company because there is no verification that materials shipped and included in the receiving location's inventory were actually received.

Conrail's internal auditors and its public accounting firm have cited as a major inventory control problem the lack of a procedure for attesting to the receipt of materials transferred from one Conrail location to another. The internal auditors were unable to test whether discrepancies existed between transfer document quantities and the quantities actually received at most division stores. However, the auditors did perform a test at Conrail's rail cropping plants. <sup>1/</sup> At Conrail's rail cropping plant, Morrison Contractors, which is responsible for cropping rail, keeps its own receiving log. The auditors selected for review 55 transfer documents covering rail received at two of Conrail's rail cropping plants from other Conrail stores. The auditors compared the footage of rail shown as being received on the Morrison receiving log and found that, in 14 of the 55 cases, the rail footage actually received was less than the footage on the transfer documents. In 1 of the 14 cases, two cars of rail (about 7,800 feet), shown on the transfer document that were transferred by the shipping store, were not shown as being received on the Morrison log. The MAPS system, however, showed the rail at the cropping plant.

We could not determine the extent to which actual transfers of material do not agree with the material quantities shown on transfer documents. However, a division material engineer told

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<sup>1/</sup>Cropping plants remove, or "crop," the ends of used rail so that it can be welded together and reused.

us that it is fairly common for stores to receive fewer items than they had requisitioned.

According to a study by Conrail's accounting controls group, in the event material is not actually received or only partially received, some receiving stores "bill back" the shortages to the sending store. However, other receiving stores do not bill back material shortages and, consequently, these annual physical inventory adjustments would reflect these shortages.

We believe the lack of a procedure covering intracompany transfers of material is a major factor in Conrail's lack of inventory control as well as a primary cause of the company's inaccurate inventory records. We believe Conrail's procedures for transferring material from one location to another should be revised to require that the receiving location verify all items received against accompanying transfer documents and prepare a receiving report for input into the MAPS system.

#### OPEN ORDER FILES NEED TO BE IMPROVED

Conrail's written procedures require that receipt copies of purchase orders be maintained at inventory store locations so that, when vendors deliver material, the material can be checked against the purchase order to verify that the material was officially ordered and that the correct quantity was received. The receipt copy of the purchase order also serves as the basic input document to the MAPS system that updates the stock status inventory records to reflect the additional items and permits the payment of vendors. Until a receipted copy of the purchase order is received, it is carried on Conrail's book as an open order. It is important to have an accurate listing of open purchase orders to avoid ordering items that are already on order.

To determine whether Conrail was maintaining copies of purchase orders at inventory store locations in accordance with the company's written procedures, we obtained a copy of the open purchase order report for the Philadelphia division engineer store as of July 16, 1980. This report keeps track of all purchase orders for which there has been no receipted copy of the order. The open purchase order report for the Philadelphia division showed there were 70 open purchase orders valued at about \$685,000.

We visited the Philadelphia store and found that only 8, or 11.4 percent, of the 70 purchase orders were actually on file at the store location. The material engineer (person responsible for receipting for materials) at the store said that he had never received copies of the other 62 purchase orders. He explained that the only thing he receives for many purchases, especially timbers, is a release form showing that material is

being shipped into his store. He said he does not receive a copy of a purchase order for those items shipped to Conrail on a release form. He also said he does not receipt for those items shipped in on a release form nor does he prepare a document or notify anyone about the receipt of materials that are not on a purchase order. It is to be noted that Conrail's instructions state that all copies of purchase orders are to be sent to the receiving store; the headquarters' purchasing department said it followed that instruction. In addition, Conrail is planning to have computer terminals installed in each division that will print receipt copies of purchase orders.

At the purchasing department at Conrail headquarters, we were able to locate an additional 22 of the 62 purchase orders on the open purchase order report. Department staff could not explain why they did not have the other 40 orders.

We contacted the vendors by telephone to determine the status of the remaining 40 orders on the open purchase order listing. This involved contacting only 16 vendors since some of the vendors had more than one order. The 40 open orders were valued at \$666,147, and 36 of the orders dated back to 1978 and 1979. Following is a summary of the information we obtained from suppliers on the status of the 40 purchase orders.

<u>Vendor response/explanation</u>	<u>Number of purchase orders</u>
Order considered canceled	21
Order completed or closed	6
Order not considered canceled	8
Items shipped to Conrail	3
Could not contact vendor-- phone disconnected	1
Vendor declined to provide information	<u>1</u>
Total	<u><u>40</u></u>

As can be seen in the above tabulation, most of the orders, according to the various vendors, were either considered canceled or completed, even though they were still included on Conrail's open order listing. Many of the orders were for crossties and were made under rebiddable contracts with Conrail. These contracts usually specify that the order has a 1-year life and is automatically canceled at yearend to be replaced by a new order provided Conrail chose to award one to the particular vendor. This meant

that Conrail was carrying orders that were no longer valid as open orders.

We informed Conrail management of our findings on the open vendor listings. They told us that the company had just done a purge of the open order reports and that we should reaudit Conrail's records. Accordingly, we obtained an open order listing for the Philadelphia division engineer store dated September 28, 1980--a little more than 2 months after the initial listing. The second listing contained only 49 purchase orders--a reduction of 21--and these 49 were included in the 70 on the initial listing. Among the orders on the second listing were the 8 orders for which we had obtained copies of purchase orders at the Philadelphia division engineer store and also the 22 orders we had obtained at purchasing headquarters. However, there were still 19 open orders on the second listing that we found were no longer valid orders.

We believe the above demonstrates the need for Conrail to improve its open order recordkeeping to properly indicate the status of purchase orders and avoid possible duplicate orders and receipts and receipting delays.

#### CONCLUSIONS

Conrail has taken some actions to correct weaknesses brought to its attention in various audit reports. However, Conrail's controls over the storage, transfer, and issuance of maintenance-of-way inventory still need strengthening in certain areas. Stronger controls are needed to ensure that (1) materials are accepted from vendors only when a valid purchase order exists that has not already been filled and (2) the inventory is protected against theft or pilferage and issued only under proper authorization. Weaknesses in controls also have contributed to the high degree of inaccuracy of the inventory records, as discussed in chapter 2.

Good physical control of inventory is a prerequisite to accurate records. However, Conrail did not have adequate control over inventory because materials were stored at far too many locations, and many locations lacked adequate security and custodial oversight to protect against theft or unauthorized use. Moreover, perpetual inventory records were not kept for most field locations, and consequently it was not known what materials were on hand. To achieve better control of its maintenance-of-way inventory, Conrail has undertaken a program to reduce the number of inventory locations by establishing maintenance-of-way material yards in each division. We agree with Conrail that successful implementation of this program will improve inventory control. We believe, however, that Conrail management needs to closely monitor its progress and results. Conrail also needs to ensure that the maintenance-of-way yards have adequate security.

Conrail does not have a procedure requiring that transfers of material from one company location to another be verified and documented by the receiving location. This results in a loss of control over materials because there is no assurance that materials shipped and included in the receiving location's inventory were actually received.

Conrail is not following its own procedures requiring that purchase orders be maintained at inventory stores. This procedure is designed to substantiate that the materials were, in fact, ordered and that the correct item and quantities were delivered. Conrail's open order files are not accurate because they contain many orders that had been completed or canceled for as long as 2 years. Conrail needs to keep its open order files current to avoid placing duplicate orders.

#### RECOMMENDATIONS

We recommend that the chairman and chief executive officer of Conrail:

- Assess the physical security of the individual inventory stores and make improvements such as installing fencing and lighting if needed and where deemed economically feasible. Also, limit access to authorized persons.
- Establish a procedure for the transfer of inventory items from one Conrail location to another, requiring that the receiving store verify all items received against accompanying transfer documents and prepare a receiving report for input to the MAPS system.
- Instruct Conrail personnel to comply with existing procedures requiring that purchase orders be on hand at inventory stores when purchased materials and supplies are received.
- Require that open purchase orders be monitored and that the need for purchase orders that are outstanding for a considerable period beyond the requested delivery dates be reevaluated.

#### CONRAIL COMMENTS

Conrail generally agreed with our conclusions and recommendations and is taking appropriate corrective action. Conrail said that in conjunction with its inventory control point reduction program, it is also reviewing each storage yard to determine if appropriate security measures exist. Concerning the documenting of intracompany transfers, Conrail said it initiated a pilot program in May 1981 aimed at testing the cost effectiveness of



such a program on a systemwide basis. Conrail says the results of the pilot program will guide the decision on which of several options it will take to improve accountability of intracompany transfers.

## CHAPTER 4

### EFFECTS OF POOR INVENTORY CONTROLS AND

#### INACCURATE RECORDS

Because Conrail's inventory records are not always reliable, there is no assurance that items being purchased are needed. Based on a limited review of purchase orders, we found that items are being purchased that are not needed at the time of purchase. We determined that Conrail had surplus quantities on hand to fill the requisitions but did not know the items were available because of inaccurate records. In addition, Conrail is incurring other costs to provide the same information and the same controls that the automated system was designed to provide. These costs are for (1) a screening process that attempts to eliminate unnecessary purchases, (2) manual records maintained at some locations for determining the amount of each item on hand, and (3) special inventory counts.

#### UNNECESSARY PURCHASES

Conrail's MAPS system is designed to determine automatically the supply source for a requisitioned item--that is, it decides whether the item should be obtained from existing inventory or whether it needs to be purchased. An essential part of this system is the stock status records that provide information on what is in inventory, where it is, and what is on order. Conrail relies heavily on the MAPS information in making its purchasing decisions. In March 1980 Conrail adopted a formal procedure requiring that requisitions be manually screened to determine if items could be obtained from existing inventories before additional purchases were made. While the manual screening process has resulted in the cancellation of millions of dollars of purchases, it is not fully effective because decisions are also based partly on the stock status records, which are not accurate.

Conrail purchased materials and supplies amounting to \$919 million and \$845 million in 1979 and 1980, respectively. Maintenance-of-way purchases totaled \$327 million in 1979 and \$212 million in 1980. To determine if specific items were being purchased that Conrail did not need, we selected for review a sample of purchase orders Conrail placed in October 1979 and another sample from October 1980 for items in two maintenance-of-way stock classes. The value of the October 1979 and October 1980 purchases of standard maintenance-of-way items as well as those items in the two stock classes we reviewed are summarized below.

	<u>October 1979</u>	<u>October 1980</u>
	----- (millions) -----	
Total maintenance-of-way	\$21.7	\$12.9
Stock classes reviewed	8.8	5.3

The universe of purchases from which we could draw a sample was limited to October because that was the month immediately following Conrail's September inventory count and was, in our opinion, the only time during the year when Conrail was reasonably certain what items were in inventory and where they were located. As discussed in chapter 2, the stock status records cannot be relied upon during the year for showing items on hand.

We reviewed purchase orders placed by Conrail in two time periods--20 in October 1979 and 13 in October 1980. We selected purchases from two periods to determine whether Conrail's manual requisition screening system--which was formally adopted in March 1980--had an impact on purchasing decisions. The 33 purchase orders we selected for review were obtained from Conrail records that showed on an item-by-item basis the book and physical inventory quantities. We selected the 33 purchase orders because the physical inventory quantity widely exceeded the book quantity shown on the stock status. It should be noted that the records from which we made our selection were acknowledged by Conrail to be inaccurate. Consequently, we used the record only as a preliminary indication of record inaccuracies and had to obtain other records and, in some cases, reconstruct records in order to analyze the purchases.

#### October 1979 purchases

Our review of 20 purchase orders valued at \$90,862, placed by Conrail in October 1979, disclosed that the inventory records for 7 purchases were not accurate at the date of the purchase. The records were not accurate because they had not been updated to reflect the inventory count made as of September 30. Consequently, Conrail did not know it had available items in inventory when it made the purchases. We found for four of the seven purchases that there were surplus quantities available to satisfy the requisitions and, therefore, the purchases valued at \$50,002 could have been avoided at the time of purchase. However, the items were purchased rather than obtained from inventory because (1) the inventory records did not accurately reflect the onhand quantities and (2) Conrail, at that time, did not have a formal procedure requiring that the inventory be screened for surplus items before new ones were purchased. Written procedures for reviewing requisitions and locating surplus material for transfer were not established by Conrail until March 1980. A Conrail official explained that for three of the seven purchases items were not available for transfer because they were designated

for a specific project or they were used frequently, making transfer impractical.

For the remaining 13 purchases, the inventory records were adjusted to reflect the September 30 inventory count before the purchases were made. For 5 of the 13 purchases, surplus quantities were available, but because Conrail did not have a procedure requiring screening and transfer of inventory, the items were purchased. For the other eight purchases, Conrail officials explained that the items on hand were not available for use because they were high-use items or were designated for use on specific projects.

The following is an example of purchases Conrail made in October 1979 that partially or totally could have been deferred if Conrail's inventory records had been accurate at the time of the purchase. In July 1979, a Conrail inventory store in Readville, Massachusetts, requisitioned 10 used No. 8 frogs <sup>1</sup>/<sub>and</sub> 10 used No. 10 frogs for general maintenance purposes. On October 4, 1979, Conrail placed purchase orders for 10 new No. 8 frogs at \$1,839 each and 10 new No. 10 frogs at \$2,284 each to fill the requisition. The total value of purchases was \$41,230. At the time Conrail awarded purchase orders for the frogs, another Conrail store in Springfield, Massachusetts, had, according to the physical inventory, 11 used No. 8 frogs and 11 used No. 10 frogs. However, the stock status for the Springfield store was not accurate in that it showed zero balances for both types of frogs. Consequently, Conrail was not aware that the items were in inventory and were available for use.

Conrail's manager of maintenance-of-way material programs told us that the frogs at the Springfield store could have been used to fill the requisition from the Readville store. The same official could not explain why new rather than used frogs were used to fill the requisition.

#### October 1980 purchases

We reviewed 13 purchase orders, placed by Conrail in October 1980, having a total value of \$99,980. We found that the inventory records for the items being purchased were inaccurate at the time of the purchase. In most cases, the physical inventory quantities exceeded the book quantities, indicating that items were available for use that Conrail did not know existed. We found that three purchases and part of three others could have been avoided if Conrail had used surplus items. However, Conrail did not know the items existed because they were not included on

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<sup>1</sup>/<sub>A frog is a device placed at the intersection of two running rails to permit wheels moving along one set of rails to pass across the other.</sub>

the inventory records at the time of the purchases. The value of the purchases that could have been avoided amounted to \$18,167. For the remaining seven purchases, items were not available in sufficient quantities to meet Conrail's needs or were designated for use on specific projects. Thus, no savings were possible.

Following is an example of a purchase Conrail made in October 1980 that could have been deferred if Conrail's records had been reliable. On October 21, 1980, Conrail placed a purchase order valued at \$2,020 for two switch points for the Indianapolis, Indiana, distribution center. While Conrail was purchasing the switch points, the physical inventory indicated that the Indianapolis division engineer's inventory store had six of these switch points on hand. However, the stock status for the Indianapolis store was not accurate in that it showed a zero balance for this item. The result was that Conrail was not aware the items already existed in inventory and were available for use.

Conrail's manager of maintenance-of-way material programs told us that the switch points at the Indianapolis division engineer's store could have been transferred to the distribution center if the records had shown the correct quantities, thereby eliminating the need to purchase the items. The same official told us that this is a relatively new item and Conrail will continue to purchase it regardless of the stock status until a history of item usage is known. We noted, however, that the first purchase of this item was made sometime around July 1979. When Conrail placed the order for the two switch points in October 1980, it had 17 of the items in inventory but had not used any. As of June 1981, Conrail had 27 of the items in inventory but still had not used any.

#### REQUISITION SCREENING PROCESS

Conrail's maintenance-of-way requisitions and reorders are intended to be based primarily on stock status levels as recorded in the MAPS system. However, Conrail has instituted several layers of review to screen requisitions to locate surplus materials and prevent excessive purchasing, partly because stock status figures are inaccurate. About 30 Conrail employees are engaged in the requisition screening process.

Requisitions for maintenance-of-way material are prepared and submitted manually by field personnel or automatically for distribution center items by MAPS if the stock status for a specific item falls below a predetermined amount. These requisitions are then submitted to the MAPS input center where they are entered into the MAPS system. If MAPS, using the stock status, determines an order can be filled only by a purchase, a copy of the request is sent for review to a regional general supervisor for maintenance-of-way material. The general supervisor acts as the first level of review by screening the requisition to ensure the order cannot be filled with surplus stock

already in the division or region. The general supervisor uses both MAPS-generated reports as well as personal knowledge based on inspections and field trips to know what inventory is on hand within the region. If he finds the materials are not available from existing supplies, he forwards the requisition to the inventory control point in Philadelphia, which determines whether inventory exists or whether it should be purchased.

The inventory control point, as another level of screening, reviews all requests by consulting the MAPS stock status to determine if ordered items are available anywhere in the Conrail system. The reorders, which were automatically produced, are then sent directly to the purchasing department. The manually prepared requisitions are screened further by the inventory control point according to a set of "groundrules," which merely establish the number of store locations the inventory control point will contact looking for surplus inventory to fill individual requisitions. The orders that the inventory control point cannot fill with surplus inventory and that are valued under \$2,500 are sent to purchasing. The orders valued over \$2,500 are sent to the assistant vice president for material distribution for purchase approval. The requisitions are then forwarded to purchasing for action. The vice president for materials and purchasing indicated that the purchasing department performs a final screening on all reorders and requisitions before they are actually bought. If the stock status records were accurate, much or all of the manual screening would not be needed.

#### MAINTENANCE OF MANUAL INVENTORY RECORDS

In chapter 2 we noted that the Reading distribution center maintains a manual record system to control all track material items. The system was installed because the automated stock status is unreliable. The manual system consists of a series of cards or sheets containing on-order, receipt, usage, and availability data for each line item in the inventory. The manual records are used by inventory store personnel for control and management of individual maintenance-of-way items.

A supervisor at the Reading distribution center advised us that it takes about 50 percent of one person's time to update the records. Officials at Conrail headquarters advised us, however, that it takes only about 1 hour a day to update the records. Because Reading personnel do not document the time spent keeping manual records, we have no way of ascertaining which estimate is correct. We also learned that manual inventory records are maintained for track material at Conrail's Altoona distribution center. Apparently, these records are kept because the stock status is not an accurate indicator of inventory status for items in this class. No costs were available, but one person is needed occasionally to update records.

We also found at the division level that material engineers were using the annual physical inventory printouts to manage their inventory rather than the stock status or other MAPS-derived reports. They considered the MAPS reports unreliable. The material engineers manually updated the physical inventory sheets in an attempt to keep track of the inventory status in their division. In addition, one material engineer we spoke with kept a manual record of inventory usage that he used along with the physical inventory data to control inventory items.

#### SPECIAL PHYSICAL INVENTORIES

Conrail has had to conduct special inventory counts of certain inventory items because the stock status records could not be relied on to provide accurate inventory information. Conrail could not provide us with information on the number of special inventories taken or the cost. We noted, however, that during the early part of 1980 Conrail conducted a special inventory of all the rail on the system. In a letter to USRA, Conrail said the purpose of the inventory was to "identify the condition and quantity of all rail at every location" to make maximum use of used rail. Conrail identified an additional 35 miles of surplus rail that it was able to use on its 1980 rail program.

In another example of a special inventory, we found that Conrail conducted a special physical inventory in mid-1980 in order to identify the number of panel switches available for use throughout the Conrail system. Panel switches cost thousands of dollars each. Conrail wanted to stop purchasing these items until those already onhand were used, hoping that this would help lower the inventory level. Conrail found that it could not rely on the stock status to provide accurate information so that purchasing decisions for these items could be made. Therefore, a special physical inventory of panel switches was undertaken to determine the actual number and location of these switches in inventory.

#### CONCLUSIONS

Inventory management decisions, such as deciding whether to use existing items or buy new ones, depend to a large extent on having accurate and reliable inventory information. Because the inventory records cannot be relied upon, Conrail cannot be sure that items being purchased are actually needed. Moreover, Conrail is incurring other costs to provide the same information and controls that the automated inventory control system was designed to provide.

The recommendations we are making in chapters 2 and 3, aimed at improving inventory record accuracy and control, should, if properly implemented, enable Conrail to better utilize its inventory and to purchase items only when needed.



CONRAIL'S LIST OF IMPROVEMENTS TO ITS MATERIAL,  
ACCOUNTING, AND PURCHASING SYSTEMS SINCE CONVEYANCE

A. Receipt Prior to Payment

Extensive effort has lead to the establishment of procedures and controls for invoice payment after documentation of receipt. The full program will be completed in mid-1981 when diesel fuel oil is included in program. Invoices offering discounts, of course, may be paid prior to acknowledgement of receipt. "Paid-For-Not-Received" balances were reduced from the high level of \$28.2 million in 1976 to a present level of \$3.2 million.

B. Diesel Fuel Oil

Procedures and controls have been effectively implemented by the Material, Transportation and Mechanical departments that substantially improves documentation and controls of diesel fuel transactions. In addition, the company is engaged in a program to install meters to verify vendors' deliveries and an electronic fueling system to prevent spillage and pollution.

C. Physical Inventory

Inventory procedures, documentation and controls have effectively contributed to the reduction in the inventory processing time span. Currently 90% of the inventory data is transmitted within one week of the physical inventory data compared with four to five weeks previously. Implementation of inventory data systems provide more information for analytical comparison and review. These and other controls contributed to a reduction of inventory variance from \$12.8 million in September 1976 to the variance of \$1.0 million noted in the September 1980 inventory.

D. Track Program Material

New procedures and controls have been implemented for reporting material installed under the discretionary track program. These provide daily usage reports which are computer generated from daily production reports. Other Track Material usage is reported weekly. There has been a marked improvement in the timeliness of consumption reports.

E. Con Power Material

The larger diesel terminals have been converted from pool points (imprest inventory locations) to stock status stores. This has provided an improved physical controls of material as well as enhancing the reliability of inventory records.

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F. Document Batching

Procedures now require material locations to furnish documents to the input centers under batch control. This assures input processing of all transactions, tracking of missing documents and timeliness of receipt.

G. Catalog

Approximately 190,000 material items were cataloged by the railroads forming Conrail. Since conveyance 90,000 references have been eliminated as duplicates or obsolete items. The latest Conrail catalog was issued June 1980.

H. Rehabilitated Material Prices

Prices have been established reflecting Conrail's cost of rehabilitating equipment components. Previously these costs were based on a standard percentage of the new part prices.

I. Excess and Obsolete Material

Procedures and computer systems have been implemented to identify, analyze and report excess and obsolete inventory items. Material and Purchasing Department has established effective procedures and controls for monitoring and disposing of these items.

J. Distribution Centers

Material Management has restructured Conrail's material distribution system to achieve improved services, greater control, reduced operating cost, and a lower relative inventory investment. This restructuring integrated and consolidated warehousing into three strategically located distribution centers that provide reliable and timely service to Conrail activities in particular geographic areas.

K. Material Access Terminals

The Material Access Terminal (MAT) concept, in various stages of completion at most of Conrail's divisions, will alleviate inventory imbalance and improve physical control in maintenance of way stores. These terminals will be the sole receivers of C&S and track and structures materials. Standard and protect materials will be stored and available to all sub-divisions. Each MAT location will be fenced for

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material security and control. Sub-divisions will be stocked with minimum maintenance requirements only but will be provided individual stock status reports for controls of individual transactions with the serving MAT location.

L. Inventory Control Point

Material planning and replenishment activities have been centralized into the Inventory Control Point (ICP) located in Philadelphia. This unit reports directly to the distribution system manager. The ICP can identify supply imbalances, expedite stock replenishment, etc., to ensure adequate stock.

M. Small Value Purchase Order System

Under the control of the Field Purchasing office, a requisitioner can readily obtain (purchase and pick-up) material from vendors where the order does not exceed \$100.00 per item or \$300.00 per order.

N. MAPS Revitalization

A major systems effort updated the former Penn Central computer system to meet Conrail's purchasing needs. The changes expanded data fields and added new data items to gather and store information. The enhancements include the following features:

1. Delivery instructions
2. Buyers codes
3. Payment terms
4. Material routing instructions
5. Requisition number for user's reference tracking
6. Space for manually entered special instructions
7. Inspection instructions
8. AFE and work order number for tracking purposes
9. Contract numbers
10. Transportation terms

O. Other

The following have contributed to the scope and effectiveness of material management and control:

- Material and Purchasing Department Standards Manual
- Purchasing offices authorization of additions to the Master Vendor file

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- Clayton Act Purchasing Procedures
- Minority Vendor Program
- Purchasing's Cost Improvement Program
- Systems Contracting
- Field Purchasing Offices
- Establishment of Inventory Targets (all locations)

**CONRAIL**

L. STANLEY CRANE  
CHAIRMAN AND  
CHIEF EXECUTIVE  
OFFICER

July 10, 1981

Mr. Henry Eschwege, Director  
United States General Accounting Office  
Washington, DC 20548

Dear Mr. Eschwege:

I appreciate the opportunity to review the General Accounting Office draft report, "Conrail Needs to Improve Inventory Control and Management," which accompanied your letter of July 2. Since I believe Conrail's perspective on this matter is critical to a full understanding of the issues involved, I hereby request that this letter be included in the final report.

Specific responses to GAO recommendations will be discussed further on in this letter. More important, however, are several general observations which provide a critical framework for considering the issues raised by this report.

First, we agree that there is still room for improvement in the area of inventory control and management, as the report's title indicates. We would suggest, however, that a more accurate title would be, "Conrail Needs to Further Improve Inventory Control and Management."

Conrail has taken various actions to improve its performance in these critical areas. We have substantially reduced the number of control points and required a higher level of control efficiency at these locations. The change in procedures, which will be completed this year, was being implemented during the GAO's review for this report and consequently was not audited. In considering the GAO report, it is therefore critical to keep in mind that Conrail's internally generated changes will materially improve its inventory control and management system -- and thereby resolve many of the issues addressed in this report.

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Similarly, the GAO report notes that Conrail has regularly audited, criticized and changed its own system of control. Many changes have been made as a result of this ongoing process, and others will be made as warranted. Recognizing the high priority of inventory control, management has regularly reported on these issues to the Audit Committee of Conrail's Board of Directors and, in summary form, to the full Board.

Our second area of general concern involves the method of measurement upon which the findings of this report are based. The GAO report notes that the annual net inventory variances reported by Conrail have represented a negligible percent of the ending inventory balance, and a significantly lesser percent of the inventory through-put (or volume of annual material usage). However, the technique of measurement employed by the GAO in effect compounds the degree of the problem by reflecting the aggregate of individual discrepancies for both overages and shortages.

Conrail contends -- and its public accounting firm has confirmed to GAO -- that its method of measuring inventory variances on a net basis is typical industry practice and consistent with generally accepted auditing standards.

In Conrail's opinion, most inventory variances are attributable to record-keeping deficiencies rather than to actual physical loss of materials. The central importance of this situation is that to whatever extent inventory variances have existed, they have not impeded Conrail's massive rehabilitation program; there have been no material shortages interfering with these major construction projects, and the effect on Conrail's costs have been minimal.

We agree, of course, that inventory control procedures could be further enhanced, and that it would be desirable to reconcile every discrepancy noted between physical inventory and accounting records. However, the cost of this improved control must be justified in comparison with the benefit obtained, as well as all other projects deemed necessary for improvement in Conrail's operating performance.

Our third and final area of general concern involves the time frame upon which this report is based. The GAO analysis reflects data drawn primarily from 1979, and to a lesser extent from 1980. A report of this nature, of course, requires the collection of extensive existing data. However, as in many other areas of Conrail operations, much has changed -- for the better -- during the interim period. I would draw the analogy that a report issued today -- but based on 1979 data -- describing Conrail's service reliability to its customers would conclude that the railroad's service is far below the industry average. This, I can assure you, is not the case today. I would thus urge that this report be considered as one describing certain past deficiencies -- many of which have been corrected.

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Our specific comments relative to recommendations for improvement contained in the GAO report are as follows:

o Establish and monitor reasonable record accuracy standards

In connection with the 1981 physical inventory, we plan to reconcile variances in excess of \$5,000 per item per store code. Depending on the results of that experience, the dollar value threshold may be reduced in subsequent periods.

o Maintain stock status inventory records for each inventory store location

Stock status inventory records will be maintained for each Maintenance-of-Way sub-division. The establishment of Maintenance-of-Way centralized support yards in each division, including stock status inventory records and designated responsible personnel, will substantially improve physical control and the reliability of the stock status records.

o Revise procedures for investigation of physical inventory variances

As indicated, physical-to-book inventory variances in excess of \$5,000 per item per store code will be reconciled. In addition, the program to cycle-count high dollar value items will continue to be expanded in order to identify and correct stock status variances, and the cause for such variances, between physical inventories.

o Change the organization structure so that users and custodians are not in the same department

The Division's Material Engineer's duties have been expanded to include full responsibility for the physical control of the Division's Maintenance-of-Way centralized support yard into which most maintenance of way materials are being transferred. The responsibility for accuracy and timeliness of the material transaction documentation has also been assigned to the Division Material Engineer. Periodic audits will be performed by the Internal Audit Department to validate the reliability of the inventory records.

o Assess the physical security of individual stores

As indicated, a major withdrawal of Maintenance-of-Way materials is in process to reduce to a minimum the level of inventories at 219 inventory locations and to provide 23 Maintenance-of-Way centralized support yards. Each

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support yard is being reviewed to determine appropriate security measures within economic parameters.

- o Establish a procedure for the transfer of inventory between company locations

As GAO was advised, Conrail initiated a pilot program in May 1981 to test the cost effectiveness of documenting intra-company inventory transfers. Results of this project will guide the decision as to which of several options will be taken on a company-wide basis to ensure improved accountability of intra-company transfer.

- o Emphasize compliance with existing procedures concerning the maintenance of open purchase orders at the receiving store location

The 23 Maintenance-of-Way support yards will now receive the material which previously was accepted at 219 locations. In our opinion, this will materially improve our capability for monitoring compliance with established procedures.

- o Require that open purchase orders be monitored

The Materials and Purchasing Department will purge the files of over-aged and cancelled purchase orders, and will continue to do so on a regular basis.

Again, I thank you for the opportunity to comment on the GAO draft report. I trust you will accept these comments in the spirit in which they are intended -- which is one of promoting a fuller understanding of the problems Conrail has faced and the progress it has made in solving them.

As you know, Conrail is at perhaps the most critical point in its history. The need for comprehensive and reliable information about the railroad's operations is thus of great importance. We at Conrail are not seeking to hide our problems -- but rather to identify and solve them as quickly and effectively as possible. We have already made substantial progress in the area of inventory control and management, although there is room for further improvement. Our continuing efforts to achieve such improvement, combined with the recommendations contained in the GAO report, will contribute to even better record-keeping and inventory control as we move into the future.

Sincerely,

  
L. Stanley Crane



**United States Railway Association**

955 L'Enfant Plaza North, S.W.  
Washington, D.C. 20595

July 8, 1981

Mr. Henry Eschwege  
Director - Community and Economic  
Development Division  
United States General Accounting Office  
441 G Street, N.W. - Rm. 6146  
Washington, DC 20548

Dear Mr. Eschwege:

The USRA staff has reviewed the draft of your proposed report entitled "Conrail Needs to Improve Inventory Control and Management" and our comments are included herein for your information.

USRA has conducted two in-depth studies of Conrail's inventory control and reporting systems since 1977. Each study noted certain aspects of Conrail's inventory control which merited attention and acknowledged that Conrail's management had initiated efforts to strengthen those systems. Our findings with regard to data entry of inventory transactions, physical safeguarding of inventory and segregation of maintenance of way and material management functions were substantially identical to those contained in your draft report. The Association continues to monitor reductions in inventory levels and inventory systems development, and concurs with your recommendations that management must continue to strive for improvements in inventory management and reporting systems. We also agree that it is preferable to analyze gross rather than net book to physical inventory variances.

We would be pleased to discuss these matters further if you so desire.

Sincerely,



Donald C. Cole  
President

(343748)

