A STUDY OF PURCHASING AT THE PRESBYTERIAN MEDICAL SERVICES OF THE SOUTHWEST, SANTA FE, NEW MEXICO

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CHAPTER I

INTRODUCTION

General Information

During the last two decades the health care industry has survived numerous changes in its operational, social, political, and economic environment. With the far-reaching consequences of the rising cost of hospitalization, economy in operations has assumed increased importance. Hospitals are big business; in fact, they have become one of the largest industries in the United States. This growth has been brought about to a large extent by the federal government's involvement and its subsidies to the health care industry, resulting in a corresponding increase in the demand for medical care. Federal involvement, associated with the spiraling costs of hospital operations, has resulted in a dramatic shift of public attention to the health care industry. This attention, often vociferously expressed, has placed a demand upon hospital administrators to improve their managerial expertise. No longer should administrators be concerned only with the internal functions of their hospital; for if they

are to continue their leadership role in the delivery of health care, they must react to the many external forces now converging on health care institutions.

Many hospital administrators have recognized this challenge and have looked to other industries for adaptive ideas, methods, and techniques. As a result, new managerial tools have been introduced into health care administration such as automation, electronic data processing, personnel management, and operations research. Some of these tools have been applied to the broad field of materials management with great success. As an example, some authors conclude that 20 to 30 per cent of an enterprise's profits can come from savings generated through wise purchasing.[1]

There are two basic types of purchasing systems that are widely used throughout the nation's hospitals: centralized and decentralized purchasing. These words imply two extremes. Management must therefore decide as to what degree it should indulge in either of these extremes. Since no two organizations are identical, the decision should be based on a thorough analysis of the organization, its objectives, and its peculiar circumstances.

The History and Setting of the Presbyterian Medical Services of the Southwest

The Board of National Missions of the United Presbyterian Church, acting on the advice of special consultants early in 1962, united four medical institutions in the Southwest. These facilities, owned and operated by this church, were the Embudo Presbyterian Hospital, Embudo, New Mexico; the Mora Valley Medical Unit, Cleveland, New Mexico; Sangre de Cristo Medical Unit, San Luis, Colorado; and the Sage Memorial Hospital, Ganado, Arizona. Because these institutions were separate entities in themselves without any common administrative direction, it became evident that a complete system of bookkeeping, accounting, charges, and cost accounting could be centralized. On this premise, the Presbyterian Medical Services of the Southwest (PMS) was organized at Santa Fe, New Mexico, and placed under the executive directorship of Thomas I. Harnish.

Since its inception, the PMS has accomplished a centralized administrative organization which is appropriate to modern concepts of regional hospital care. In cooperation with the Board of National Missions and its affiliate committees, the PMS has also aided in the development of

medical plans and strategies for all of the geographical areas which it serves.

In 1967 the Board of National Missions adopted administrative guidelines for the PMS. This document called upon the PMS to investigate the health needs and resources in their areas of concern. It encouraged them to work with other health agencies in ways that would help regenerate communities from a health standpoint and to develop the resources they considered necessary to do the job.[2]

A brief history and description of each of the hospitals and clinics controlled by the PMS follows.

Embudo Presbyterian Hospital

This hospital sits at the foot of a steep, reddish ridge, not far from a peak-shaped hill after which the town and hospital were named: embudo is Spanish for "funnel." In 1961 a $400,000 program consisting of new construction, remodeling, and new equipment gave the hospital four new wings containing a pediatric ward, an obstetrical ward, an outpatient clinic, and a chapel. With facilities virtually doubled it now accommodates twenty-five beds and eight bassinets. The hospital is today as modern and well-equipped as many hospitals of even considerably larger size. Its low,

tan adobe building complex is located on heavily traveled U. S. Route 64, an hour's drive northeast of Santa Fe.[3]

Sangre de Cristo Medical Unit

For many years, inadequate medical service had been provided in San Luis, Colorado, and for treatment the people had to travel long distances to reach a clinic or hospital. With such a need the townspeople formed a County Health Association. They realized that to attract a doctor to such a rural area, clinic facilities were needed. Acting on the advice of the Colorado State Department of Public Health, local workers constructed a one-story building north of San Luis in 1957. Funds for the construction of this clinic were provided by various sources through the County Health Association, but still no doctor was found to open up a practice. Then in 1959, the Synod of Colorado and the Board of National Missions recognized San Luis as being in the region allocated for a field of service. At the request of the Costilla County Health Association, the Board of National Missions agreed to open the needed clinic in cooperation with the Synod. The board rented the already constructed building and provided a doctor and staff through the National Missions' administration.[4]

Mora Valley Medical Unit

This unit was a direct outgrowth of the clinics held by the Embudo Hospital staff at Holman, a town in the center of the Mora Valley. These clinics were valuable but were never adequate to meet the overwhelming medical needs of the area. In 1956 a group of Mora Valley citizens began making plans for the establishment of a permanent clinic. Their hopes were realized through the cooperation of the Board of National Missions, residents of the area, the state and federal governments, and other groups. Early in 1957 the medical unit's work was begun at the old location in Holman by a retired missionary. The program was transferred in June, 1957, to the newly-completed building at Cleveland, a small town near the county seat of Mora. In the first nine months of operation, the clinic treated 4,479 patients, including 46 deliveries and 133 emergencies. To the people of the valley, many of whom were on relief, the medical unit has literally been a lifesaver. Valley residents no longer must travel for hours over rugged and frequently impassable mountain roads to find a doctor. The clinic now provides them with inexpensive medications and treatment when hospitalization is not necessary and gives referrals and

trained medical assistance to patients who must have hospital care.[5]

Sage Memorial Hospital-Ganado Mission

Sage Memorial Hospital, the Board of National Missions' largest station, is situated on the 25,000 square-mile Navajo Indian Reservation which stretches over parts of Arizona, New Mexico, and Utah. The modern facilities of the hospital are available to all people in the area regardless of race or creed. Although most patients are Navajo, some come from other tribes. Some patients are also non-Indian, including teachers, missionaries, Bureau of Indian Affairs personnel, traders, and construction workers. Sage is the only hospital in the region to serve these people. In 1963 an outdated hospital building was replaced by a modern, two-story, fire-proof structure. The new building accommodates forty-five beds; medical, surgical, obstetrical and pediatric services; an outpatient department with diagnostic and treatment facilities; and a small chapel. The Sage staff includes four doctors, sixteen registered nurses, a pharmacist, two laboratory technicians, and an x-ray technician.[6]

Conditions Which Prompted the Study

The PMS is a unique organization in its third year of operation. Its purpose is to serve as an administrative headquarters for four medical facilities operated by the National Board of Missions of the United Presbyterian Church. At the time of this writing, the PMS has a completely decentralized system of supply procurement, although its accounting and personnel functions are completely centralized.

The executive director of the PMS recently noted that almost all of the consumable supplies used within his organization were being purchased in relatively small quantities, from many different vendors, and without the benefit of quantity discounts. As stated in greater detail in the preceding section of this chapter, the subordinate units of the PMS are separated by large distances and rather unusual geographical terrain. In an interview with the executive director, it was concluded that hospitals and clinics under his control were spending more for consumable supplies than other similar facilities in adjacent areas. On this basis he requested a study on which to base the

development of a more efficient purchasing system for the PMS.

Footnotes

[1]Lamar Lee, Jr., and Donald W. Dobler, Purchasing and Materials Management (New York: McGraw-Hill Book Co., Inc., 1965), p. 20.

[2]Presbyterian Medical Services of the Southwest, "The History and Goals of Presbyterian Medical Services of the Southwest," Santa Fe, New Mexico, n.d., pp. 1-3. (Mimeographed.)

[3]Ibid., p. 4.

[4]Ibid.

[5]Ibid., p. 5.

[6]Ibid., p. 6.

CHAPTER II

THE PROBLEM

Statement of the Problem

The problem is to determine the best purchasing system for the Presbyterian Medical Services of the Southwest at Santa Fe, New Mexico.

Objectives

The first objective of this study is to analyze the current system of purchasing at each of the PMS facilities. The analysis consists of a general description of requirements determination, ordering, and inventory control procedures.

The second objective is to conduct a study of the purchasing system at the Embudo Presbyterian Hospital, using flow charts to show the exact procedures involved.

The third objective is to present a theoretical discussion of centralized purchasing, centralized controlled purchasing, and decentralized purchasing with the intent of showing which of these alternatives would best suit the

needs of the PMS.

The fourth objective is to make recommendations regarding the establishment of a standardized purchasing system geared to the needs of the Presbyterian Medical Services of the Southwest as a unitary organization.

Criteria

The proposed purchasing system for the PMS must:

1. Be flexible in order to expand with the intended growth of the organization.
2. Eliminate unnecessary duplication of effort.
3. Be economically feasible.
4. Provide for continuity of supplies.

Factors Bearing on the Problem

Certain facts have a direct bearing on the outcome of this study. Among these are:

1. The Presbyterian Medical Services of the Southwest is a unique organization; therefore, the advantage of precedent is lacking.
2. Centralized storage facilities for both medical and nonmedical supplies are not currently within the assets of the PMS.

3. Relatively large quantities of medical and non-medical supplies are donated to the PMS by church organizations. Since records on these items are not maintained, the turnover of purchased items of a like nature is not available.

Assumptions

The following assumptions were considered throughout this study:

1. The PMS will expand its services to incorporate the administration and management of other hospitals, clinics, and neighborhood health centers within the geographical area of North Central New Mexico.

2. Commercial transportation services will have access to the hospitals and clinics of the PMS on a year-round basis.

3. The PMS will provide adequate resources to implement the proposed courses of action.

Definitions

Blanket order contract--This is a buyer's promise to purchase all or part of his repetitive supply requirement from one supplier. These supplies are purchased against a previously negotiated contract.

Centralized control of purchasing--This is a system established for the control of purchases. Under this system, a central authority controls all purchasing by maintaining a log book. Department heads accomplish the actual purchasing and request purchase order numbers from the central authority before placing orders with vendors.

Centralized purchasing--This is the concentration of purchasing authority in one office or with a single person. It includes the establishment of purchasing authority and places the entire purchasing function under the responsibility of a single person.

Decentralized purchasing--This is a purchasing system in which purchasing authority is delegated to the using department. In this system, each department head has autonomy in buying since he selects his own vendors and places his own orders. Additionally he receives a minimum amount of guidance and direction from management.

Economic order quantity--This is a method of relating the cost to prepare and place an order against the cost of storing an item of supply. It is used by material managers to determine the most economical level for maintaining stock.

Inventory control--This is the function of determining the proper levels of inventory and that adequate physical and administrative controls over inventory are executed.

Reorder point--This is the level of stock in inventory at which the decision to reorder items of supply is made.

Stock--This is an item of inventory maintained in prescribed quantities within the storeroom.

Stock record card--This is a form used to maintain a written record of transactions pertaining to an item of stock. Such transactions as issues, receipts, balance on hand, and quantity on order are reflected. One card is maintained for each stocked item in the inventory.

Research Methodology

In order to obtain the information necessary to complete this study, an interview was conducted with the comptroller of the PMS. Considerable information was obtained also from interviews with other personnel working in his office.

An extensive interview was conducted with the administrator of the Embudo Presbyterian Hospital which provided an overview of the purchasing system employed at that

hospital. Individual interviews were held with each of the department heads of the hospital in order to determine the exact procedures that each employed in his purchasing effort. During the course of these interviews, the writer was shown organization charts, inventory control systems, vendor's price lists, and other material relating to this study.

Following the interviews, a review and analysis was made of the purchasing system in effect at the Embudo Presbyterian Hospital. From this analysis, flow charts were drafted illustrating the exact procedures employed by all of the departments of the hospital.

At the main office of the PMS, reviews of purchase orders, invoices, and financial records were made. The prices paid for common-use items were obtained, and certain conclusions were drawn from comparisons of these prices.

A review of the literature was made to gain a greater knowledge of the purchasing function and to provide additional justification for the recommendations made by the writer.

Literature Review

Purchasing has been defined as the buying of materials of the right quality, in the right quantity, at the right time, at the right price, and from the right source. Although this is a broad description it does well to signify the scope of the purchasing function.[1] Even though purchasing is as old as selling, it has been only in recent years that it has emerged as a specialized body of knowledge from which one might draw conclusions and formulate new theories. Innovations in the art and science of purchasing have been built on a solid foundation established by purchasing people themselves.[2] Since World War II, the purchasing function has undergone a dramatic re-evaluation by management. It has been referred to as "the last gold mine" for business managers. They have indicated that the purchasing function is the last of the specialized business functions to be centralized. Such centralization has provided managers with an opportunity to achieve significant increases in their profits.[3]

Purchasing is a basic and integral part of a business enterprise regardless of its size. Whether an enterprise is engaged in the conversion of goods to a product or the

purchase of goods for resale, it first must secure the commodities it needs in order to operate.[4]

Through the experiences of those working in the field of industrial purchasing, many new techniques in purchasing have been developed. In recent years, hospital administrators have adopted a number of these techniques in managing their hospitals. One author relates that the purchasing function in hospitals is basically the same as it is in industry. Both are confronted by one very significant problem--increasing costs--and both are searching for ways to solve it.[5] Centralized purchasing, group purchasing, contract purchasing, consignment, bids, and blanket ordering are all relatively new procedures employed by the hospital.

There are basically three types of purchasing systems commonly used in our hospitals today: decentralized purchasing, centralized control purchasing, and centralized purchasing. Each system has its advantages and disadvantages and each has its variations in application.[6]

Decentralized purchasing is a system in which the authority for purchasing is delegated to various personnel or to the chiefs of subordinate elements throughout the organization. The items are selected, the prices

negotiated, and the orders are placed usually by an individual from the using department. Its most significant advantage is that it allows the specialist in the use of the purchased items to buy the exact items of supplies or equipment that he needs. Its most significant disadvantage is that items are purchased in smaller quantities. Thus, the decentralized system fails to take advantage of quantity discounts.[7]

Centralized control purchasing is a system in which the purchasing authority rests with the chiefs of subordinate elements of the organization; however, orders are placed on purchase order requests that have been precoded by a centralized purchasing control office. Under this system, purchase orders are assigned control numbers and are logged in by the central control office before being issued to the purchasing departments. The system not only allows the same advantages as decentralized purchasing but provides for a centralized record of purchases and a means for tracing invoices. Its disadvantages are the same as those of decentralized purchasing.[8]

Centralized purchasing is a system in which the purchasing authority rests with a single person or a single

office. All requirements for supplies and equipment are routed through a centralized office where vendors are selected, prices are negotiated, and orders are placed by personnel from that office. This system not only prevents costly duplication of effort but it allows for the negotiation of quantity discounts. Its major disadvantage, particularly in the health care industry, is that the specialist or the user is not always given the opportunity to select the exact items of supply or equipment that he prefers.[9]

Of the three systems, centralized purchasing is generally the most efficient and the most desirable.[10] Some authors are in agreement that 20 to 30 per cent of an enterprise's profits can come from savings generated through wise purchasing procedures.[11] It has been stated that:

> To decentralize the purchasing function needlessly is to deny an industrial enterprise some of its profits.
> . . . . . .
> Decentralization runs counter to the concept of management specialization. Consequently it produces inefficiency and waste.[12]

There are many individuals within the health care industry who argue that medical supplies and equipment are so highly specialized that only the professional, expert in

their use, is qualified to buy them. This argument serves as the chief justification for decentralization of the purchasing function in a large number of our hospitals today.[13]

The best purchasing system for a particular hospital can be determined only after considering all of the variables having an influence on the purchasing function. The hospital administrator should make the decision as to what type of purchasing system should be used. In making this decision, he should no longer regard purchasing as a simple clerical function but recognize it as a management and profit-contributing function, for every dollar saved through purchasing is a dollar of profit.[14]

Footnotes

[1]Stuart F. Heinritz and Paul V. Farrell, Purchasing: Principles and Applications (4th ed.; Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1965), p. 7.

[2]Ibid., p. v.

[3]Lee and Dobler, p. 20.

[4]Dean S. Ammer, Materials Management (Homewood, Ill.: Richard D. Irwin, Inc., 1968), p. 211.

[5]Laura G. Jackson, Hospital and Community (New York: Macmillan Co., 1964), p. 390.

[6]Malcolm T. MacEachern, Hospital Organization and Management (3d ed.; Chicago: Physicians' Record Co., 1957), p. 915.

[7]Lee and Dobler, pp. 19, 21; MacEachern, pp. 914, 915.

[8]Heinritz and Farrell, pp. 49, 51; MacEachern, p. 916.

[9]Lee and Dobler, pp. 19, 20; Harold E. Fearon, "Centralized Purchasing Can Cut Hospital Costs," Hospital Progress, LXIX (January, 1968), 60; Paul E. Widman, "Centralized Purchasing Makes Sense," Hospitals, XXX (March, 1956), 73; MacEachern, p. 915.

[10]Lee and Dobler, p. 20; MacEachern, p. 914.

[11]Fearon, p. 60.

[12]Lee and Dobler, p. 19.

[13]MacEachern, p. 915.

[14]William E. Pauley, "The Case for Centralized Materials Management," Hospitals, XLI (August, 1967), 78.

CHAPTER III

DISCUSSION

Purchasing

In the operation of today's modern hospitals, new techniques of management are being applied with increasing effectiveness. Most authorities in the field of hospital administration agree that an effective purchasing system results in significant savings to the hospital. Good managers no longer regard the purchasing function as only the clerical task of recording entries in a log book but as an important and integral function of management. In many large hospitals the purchasing agent is subordinate only to the chief executive or his assistant. The president of a large manufacturing industry once said: "The purchasing function is one of the strongest links in our chain of operation. Weaken that link and our whole structure becomes less efficient and less productive and, of course, far less profitable."[1] On the premise that a dollar saved in purchasing is a dollar of profit, industry has elevated this function to the management level. Should those who are responsible for the

operation of one of the nation's largest industries do less?

In recent years the art of purchasing has been developed to a high state of efficiency. Those involved with industrial purchasing have developed new techniques of purchasing (e.g., centralized purchasing, group purchasing, control purchasing, consignment bids, and blanket ordering) that have been adopted by hospitals. Three basic types of purchasing systems in common use among the nation's hospitals are decentralized purchasing, centralized control of purchasing, and centralized purchasing.[2] All three have their advantages and disadvantages; consequently, it is often difficult to determine which of the three systems is best for any particular hospital.

Decentralized purchasing

As earlier defined, decentralized purchasing is a system in which the authority for purchasing is delegated to various personnel throughout the hospital. Usually a person from the using department is given this responsibility and in most instances it is the head of the department. Goods are ordered and delivered to the person who places the order. He in turn approves the invoice and forwards it to the accounting office. The purchaser under this system is

generally responsible to the accounting department for the validity of the order and its accompanying invoice.[3]

The one major advantage of decentralized purchasing is that the buyer knows precisely what is needed. Many hospital executives justify decentralization because many supplies and items of equipment are of such a specialized nature that only the user is qualified to negotiate for their purchase.[4]

A major disadvantage of decentralized purchasing is that purchasers seldom have enough time to investigate various sources of supply, thereby decreasing their chances of obtaining the best item at the best price. In this sense, their attention appears focused primarily upon their own convenience rather than upon the best interests of either the organization or the patient.

Other disadvantages are that two or more departments may order the same articles, resulting in costly duplication of effort and the loss of quantity discounts. Less efficiency in inventory control is experienced since the control of inventory by department heads is a secondary responsibility. Dishonesty is always a problem as the number of purchasers increases. Finally, a correct inventory position can only be obtained by taking a physical inventory

of the goods in each of the various departments. Unless perpetual stock records are maintained, inventory management can be very costly and time consuming.

According to Lee and Dobler, "authorities on management deplore decentralization of the purchasing function. Decentralization runs counter to the concept of management specialization. Consequently, it produces inefficiency and waste."[5]

MacEachern states, however, that "variations and exceptions in centralized purchasing are sometimes necessary. No system can be devised which will apply to all departments in so complex an organization as the hospital."[6]

Centralized purchasing

A centralized purchasing system routes all purchases through a central office. Under this system all purchases must be approved by a single purchasing official.[7] In recent years centralized purchasing has become increasingly popular, particularly among the nation's larger hospitals. According to a recent survey conducted among fifteen general hospitals of the Phoenix Regional Hospital Association, the hospitals that had centralized purchasing systems experienced a 7.7 per cent average savings in their purchases when compared to the decentralized purchasing hospitals. The

survey also revealed that had the hospitals centralized their purchasing to an even greater extent and made all of their purchases through a group-purchasing program, they might have saved 20.6 per cent.[8]

The great majority of recent articles seem to favor centralization of the purchasing function. The concept appears to be universally accepted by managerial authorities today. It has a number of advantages which are discussed at length in most articles and texts written on the subject of purchasing systems. Among these advantages are:

1. Duplication of effort and haphazard business practices are minimized.

2. Quantity discounts are received by consolidating company orders and buying in larger quantities.

3. Transportation costs are less through the consolidation of deliveries.

4. More effective inventory control is enhanced through the centralization of knowledge regarding stock levels, material usage, lead times, and price fluctuations.

5. There is greater development of purchasing specialists who inevitably buy more efficiently than the less skilled.

6. The department chiefs are able to spend more time in carrying out their primary responsibilities.

7. Managerial control is facilitated by placing the entire responsibility for purchasing in the hands of a single executive.

8. The vendor's expenses are reduced, thus enabling him to offer better prices and service to the customer.

9. Record keeping is reduced and made more effective.

10. Fewer orders are processed for the same quantity of goods, thereby reducing the workload in purchasing, receiving, inspection, and accounts payable expense.[9]

Since the advantages of centralized purchasing seem to outweigh the advantages of decentralized purchasing, it appears that most hospitals would have centralized their purchasing effort. This, however, is not the case. The health care industry consists of an unusually large number of specialists who contend that only they are qualified to purchase their supplies. In addition, there are many small hospitals whose governing authorities think that centralized purchasing can be justified only in larger hospitals. They argue that "our requirements simply aren't large enough to justify a full-time purchasing agent." Perhaps this is true in very small

hospitals which operate independently and give little consideration to unified or joint purchasing.

The question of when to centralize purchasing, based on the volume of inventory turnover, is a difficult one to answer. Research conducted at thirteen medium to small-sized hospitals revealed that a hospital spending $145,000 for consumable supplies could justify the hiring of a highly qualified purchasing agent rather than simply an ordering clerk.[10] One author infers that centralized purchasing in smaller hospitals should occupy most of the time of at least one qualified person, and that personnel costs will be repaid in multiples. He relates that savings would result not only in lower purchase costs but also in labor and materials usage.[11] "Most experts agree that hospitals of 100 beds and up should employ a purchasing agent and establish centralized control."[12]

Centralized control

Since the two major systems of purchasing are centralized and decentralized, the inception of a third system, it appears, would only modify one or the other. Many authors contend that in practice a third system designed

specifically to capitalize on the advantages of both systems exists. This third system is called centralized control and is found in some hospitals today. It allows department heads to purchase their supplies and equipment under the control of either an administrator or his representative. Under this system, the department heads are issued blank purchasing orders and obtain a purchase order number when purchases are desired. They make all contacts with their chosen vendors; in effect they do all of their own purchasing. Its major advantage over decentralized buying is that it provides the accounting department with a means of tracing invoices. Its major advantage over centralized purchasing is that it enables the specialist to purchase the materials which he believes are best suited to his needs. Centralized control, however, appears to have all of the disadvantages of decentralized purchasing.[13]

Whatever system is employed by the hospital, the administrator should recognize that the purchasing effort is a vital function within the materials management system. In the selection of a purchasing system, he should assure himself that the system he chooses meets the following objectives:

1. Maintains the continuity of supply in meeting the requirements for patient care.

2. Carries a minimum inventory consistent with safety and economy.

3. Avoids duplication, waste, and obsolescence among materials purchased.

4. Maintains high standards of quality in materials based on their suitability for use.

5. Procures materials at the lowest cost consistent with the desired quality.[14]

The Current Purchasing System of the Presbyterian Medical Services of the Southwest

To best describe how the purchasing function for consumable supplies is accomplished at units controlled by the PMS, a detailed description of the system now in effect at Embudo Presbyterian Hospital is presented. Appendixes A through G are flow charts to illustrate the various departmental procedures for the acquisition of supplies. As in all four of the units, the purchasing function for consumable supplies is decentralized. Although Embudo Presbyterian Hospital has a full-time administrative officer who

approves most purchase orders and invoices, a central log in which purchase orders are recorded does not exist.

At the present time, the Sage Memorial Hospital, the Mora Valley Medical Unit, and the Sangre de Cristo Medical Unit have business managers who approve the payment of invoices before forwarding them on to the central accounting office at the PMS. It should be noted that the procedures involved in purchasing consumable supplies at these units are very similar to those employed at the Embudo Presbyterian Hospital; however, because of the presence of an administrator at the latter facility, its overall system is more refined and perhaps more efficient. The hospital at Embudo was selected for the study basically for this reason.

The purchasing of major movable equipment within the PMS is a centralized function. Such items must be approved by the National Board of Missions which functions as the Governing Board for each of the facilities controlled by the PMS.

The PMS maintains an approximate combined total of $120,000 of consumable supplies. This figure was obtained from their most recent annual physical inventory taken

during the month of December, 1968. Since perpetual inventory cards are not maintained except by two departments at the Embudo Presbyterian Hospital, a complete physical inventory is the only means by which to determine the inventory dollar value.

Approximately fifty-two vendors exist from which all consumable supplies are purchased in support of the units under the PMS. In most instances purchase orders are completed by the consumer department and mailed to the vendor of choice. Except at the Embudo Hospital, evidence of a price negotiation between the purchaser and the vendor does not appear. The vendor, from whom approximately one-third of all drugs are purchased, provides a price list with scaled discounts according to the size of the order. In most instances the vendor's pricing policy is followed without negotiating further discounts.

The Current Purchasing System at Embudo Presbyterian Hospital

General

The total operating expenses for the Embudo Presbyterian Hospital during 1968 amounted to $453,737. The total amount spent for consumable supplies and expense (less

labor) equalled $104,766, indicating that 23 per cent of the hospital dollar was spent on the acquisition of supplies. Fearon states: "It is estimated that U. S. hospitals spend about $1.5 billion yearly, or 30 per cent of the total hospital dollar for purchases of supplies and services (exclusive of labor)."[15] A comparison of the data revealed that the Embudo Presbyterian Hospital spends less than three-fourths as much as other hospitals across the nation on supplies and expenses. This figure taken by itself is perhaps not very meaningful since the scope of the services rendered by the hospital was probably less than is that of most larger hospitals. As an example, the hospital functioned without the services of a surgeon for almost six months. In the absence of a surgeon, its requirements for surgical supplies were greatly reduced, if not eliminated, thus resulting in a reduction in its annual supply costs.

There were 1,279 patients admitted to the Embudo Presbyterian Hospital during 1968, with an average length of stay amounting to six days. These, in addition to the 17,127 outpatients, gave a supply-per-patient cost of $4.63.

Purchasing procedures

The purchasing system within the Embudo Presbyterian Hospital is accomplished on a decentralized basis. A detailed study of the exact procedures employed was conducted in each of the seven departments that frequently order consumable supplies. These procedures are reflected on flow charts appearing in Appendixes A through G. A further explanation follows:

Pharmacy.--During 1968 the pharmacy spent $29,487 for drugs and pharmaceuticals, accounting for approximately 28 per cent of the total hospital expenditures for consumable supplies. The purchasing function is completely decentralized. The pharmacist is responsible for the preparation of the invoice, selection of the vendor, and placement of the order. He is also responsible for receipt, storage, and distribution of the supplies. Although the administrator approves the payment of each invoice, an attempt is seldom made to evaluate the performance of the pharmacist in his purchasing procedures.

Inventory control within the pharmacy is effected solely by observation. No automatic inventory control systems are in effect such as the reorder point or the

reorder time methods. In the absence of an automatic system and since perpetual inventory cards are not maintained, the establishment of economic order quantities on each of the various line items would be of little assistance.

Approximately 2,000 line items are maintained by the pharmacist. During the first three months of 1968, he completed a total of 113 purchase orders, averaging 1.6 purchases for each working day. Although orders are routinely placed with about 23 vendors, over 53 per cent of all purchases are made from only three vendors.

The procedures employed in purchasing drugs and pharmaceuticals are illustrated in Appendix A.

Medical and surgical.--All medical and surgical supplies are ordered by the surgical nurse. During 1968, purchases for medicine and surgery amounted to $19,442, accounting for 18.5 per cent of the total supply dollar.

Although the surgical nurse is responsible for maintaining adequate levels of inventory, she does not have complete control over access to the storage room, since the key to this room is kept at the ward nurse's station. In most instances the duty nurse removes medical and surgical

supplies from the storeroom as needed. In doing so she fills out a stock-removal form, indicating specific quantities of items removed. The surgical nurse collects the stock-removal forms and uses them to update the perpetual inventory cards.

In addition to maintaining the perpetual inventory cards on about 500 line items, the surgical nurse is responsible for requirements determination, receipt, storage, and issue of all medical and surgical supplies. During the months of January, February, and March, 1969, she submitted 75 informal requisitions to the administrator, who in turn prepared an equal number of purchase orders. These orders were placed with nine vendors.

Although perpetual inventory cards are maintained, requirements are determined by visual observation of stock levels. Neither a reorder point nor a reorder time method of inventory control is used on any of the stock items. These inventory cards serve primarily as a guide and are checked for stock levels only when they are updated.

The procedures for purchasing medical and surgical supplies are illustrated in Appendix B.

Housekeeping.--During 1968 the housekeeper purchased $16,455 of supplies, accounting for approximately 15.6 per cent of the total consumable supply expenditure. The purchasing function is decentralized; purchase orders are prepared, however, by the office of the administrator. In most instances vendors are selected by the housekeeper. In the first three months of 1969, housekeeping supplies were purchased from seven vendors on nineteen purchase orders. All purchases of housekeeping supplies are obtained through the use of purchase orders. In some instances, orders to local vendors are made by telephone and later verified by the vendor's invoice. All invoices are approved for payment by the administrator prior to their submission to the PMS.

Perpetual inventory cards are maintained by the housekeeper on approximately eighty line items. These cards, however, do not reflect inventory levels for the automatic reordering of supplies since requirements are determined by visual observation of stock levels on hand.

The procedures for purchasing housekeeping supplies are illustrated in Appendix C.

Laboratory and x-ray.--Collectively, the laboratory and x-ray departments purchased $7,083 of consumable

supplies during 1968. In doing so, they spent approximately 6.7 per cent of the total supply dollar available to the hospital. One person from the laboratory service prepares informal requisitions, covering the requirements for both the laboratory and the x-ray departments. The requisition is then submitted to the office of the administrator where a purchase order is prepared and dispatched to the vendor of his choice. In the first three months of 1969, a total of twenty-four purchase orders were submitted to five different vendors for laboratory and x-ray supplies. Inventory control is by visual observation, with no system of automatic reordering levels established.

The procedures for purchasing laboratory and x-ray supplies are illustrated in Appendix D.

Dietary.--The dietary department purchases all foods by direct communication with vendors. Purchase orders are only used for buying kitchen ware and minor items of equipment with a relatively high turnover. Although no record is maintained at the hospital level on the dietitian's expenditures, invoices from the various vendors are approved for payment by the administrator. Food and other consumable

supplies in the dietary department totaled $16,737 during 1968. This amount accounted for approximately 16 per cent of the hospital's supply dollars.

Almost all of the foods are purchased from local vendors who offer one-day service. For this reason very little inventory is maintained.

The purchasing procedures for foods and dietary supplies are illustrated in Appendix E.

Building and grounds.--The building and grounds department is a one-man operation. All supplies purchased by this department are bought locally without the use of purchase orders. The vendor's invoices are sent to the hospital for payment approval by the administrator before going to the Central Accounting Office at the PMS. The total amount of his expenditures for 1968 are included in the figures shown for administrative services.

The purchasing procedures for supplies purchased by the building and grounds department are illustrated in Appendix F.

Administrative Services.--The Administrative Services Department expended approximately $12,642 for consumable supplies during the calendar year 1968. This amount

represents 12 per cent of the total hospital's consumable supply expenditures for that year. Purchase orders for consumable supplies (except those purchased by the Building and Grounds Department) are prepared in the business office and mailed to the vendor of choice. The vendor's invoices are sent to the hospital and approved by the administrator before being forwarded to the Central Accounting Office.

Miscellaneous.--The remaining 3.2 per cent of the total hospital expenditure for consumable supplies ($3,353) was expended for supplies by the Dental and Eye Clinics which are operated only on an intermittent basis depending on the availability of staffing.

Analysis of the Purchasing System at the Embudo Presbyterian Hospital

In consideration of the current organization of the PMS and its relationship to its subordinate units, the purchasing system in effect at the Embudo Hospital appears to be effective. As pointed out in the preceding section, only 23 per cent of the hospital's total costs are attributed to supplies and expenses compared to a national average of 30 per cent.

Viewing the hospital as a separate entity, only minor

changes in its current purchasing program would be recommended. Because of its remote location and its relative size, it is doubtful whether the hospital could justify the hiring of a full-time purchasing agent.

The total number of vendors serving the institution appears to be excessive, particularly since some of the departments can and do order supplies from the same vendor. Should the number of vendors be reduced and a certain degree of blanket contracting be negotiated, supplies could be purchased at a lower price.

In an attempt to compare the prices paid for common-use items by the four units under the PMS, a random selection of twelve items was made and the price paid for each item was recorded. Since each of the units is located about the same distance from its suppliers, the difference in transportation costs was insignificant.

An analysis of Table 1 reveals that in no single instance did all four units pay the same price for the same item. In the purchase of intravenous solutions, the hospital located the greatest distance from its supplier paid the least price. The most significant feature of the study was the extreme variation in prices paid for such common items.

TABLE 1

COMPARISON OF PRICES PAID FOR COMMON USE ITEMS BY THE HOSPITALS AND CLINICS OF THE PRESBYTERIAN MEDICAL SERVICES OF THE SOUTHWEST

Item	Embudo Presbyterian	Sage Memorial	Mora Valley	Sangre de Cristo
Intravenous Solutions:				
A-5D-5W	$ 9.00	$11.02	$ -	$ -
D-5-S, (1000 cc)	7.62	6.82	-	-
D-5-W, (1000 cc)	7.18	6.97	-	-
Lactated Ringers (1000 cc)	7.74	6.97	-	-
X-ray Equipment:				
75 Sheets, 14 x 17 HS Film	62.32	53.64	-	53.64
75 Sheets, 10 x 12 "	32.07	27.64	27.64	27.64
75 Sheets, 8 x 10 "	21.95	19.35	21.95	19.35
Developer (5 gal)	6.10	5.50	6.10	5.50
Floor Wax (gal)	3.65	2.80	2.80	3.30
Drugs:				
Darvon Compound 65, Pul. (500)	28.62	41.60	28.60	36.60
Gantrisin Tab. 5 gr. (100)	3.04	2.94	2.53	3.58
Penbritin Cap. 250 mg. (500)	55.00	91.21	-	-
Phisohex (gal)	10.00	-	8.50	10.95

Note:

A review of the organization's records revealed that during the report period there had been no purchases of those items for which prices are not shown.

The value of perpetual inventory cards currently being maintained is questionable. Their main purposes for use are to minimize loss from pilferage and to facilitate the calculation of the value of stock on hand at any time.[16] The system is workable only when the issue of stock to the consumer is carefully controlled.

Table 2 compares the total amount paid for all twelve items against what might have been paid had all four units paid the lowest price shown for each of the items purchased. The total amount paid by all units for all items was $798.42. Had all of the units paid the minimum price for each of these items, the total cost would have been $699.74. A savings of $98.68, or slightly over 11 per cent, would have been realized. If this percentage in savings were applied to the total amount paid for consumable supplies in all units under the PMS during 1968, a total savings of $11,524.26 would have been realized.

The evidence presented in this comparison favors the centralization of the purchasing function. Even greater savings could have been made, however, had all purchases been made by a single purchasing agent.

TABLE 2

COMPARISON OF ACTUAL PRICES VERSUS LOWEST PRICES
PAID FOR COMMON SUPPLY ITEMS

Item	Actual Price	Lowest Price
Intravenous Solutions:		
A-5D-5W	$29.02	$18.00
D-5-S, 1000 cc	14.44	13.64
D-5-W, 1000 cc	14.15	12.06
Lactated Ringers, 1000 cc	14.71	13.94
X-ray Supplies:		
75 Sheets, 14 x 17 HS Film	169.60	160.92
75 Sheets, 10 x 12 "	114.99	110.56
75 Sheets, 8 x 10 "	82.60	77.40
Developer (5 gal)	23.20	22.00
Floor Wax (gal)	12.55	11.20
Drugs:		
Darvon Compound 65, Pul. (500)	135.42	114.40
Gantrisin Tablets	12.09	10.12
Penbritin Capsules	146.21	110.00
Phisohex (gal)	29.45	25.50
Totals	$ 798.43	$ 699.74

At the present time invoices are approved for payment at the unit level. They are then forwarded direct to the accounting office at the PMS where payments are prepared and mailed to the suppliers. No one at the PMS level is assigned the responsibility for evaluating supply purchases. In effect, no purchasing policy is established at that level to govern the purchase of consumable supplies and no single person is held responsible for evaluating the purchasing function at the unit level.

Alternative Systems

In an effort to determine the best purchasing system for the PMS, three alternative systems were considered:

First alternative system

The first alternative system considered was the continuation of the present decentralized system of purchasing for the PMS. The advantages of maintaining this system are:

1. No change is required in the purchasing program.
2. Supplies are purchased by individuals who are specialists in their use.
3. An opportunity is provided for the user to converse with the salesman enabling him to keep informed of

new items placed on the market.

4. Additional personnel are not required.

The disadvantages of the current system are:

1. Considerable duplication of effort is maintained.

2. Adequate time for the purchaser to investigate various sources of supply is not provided.

3. The purchasing function is a secondary responsibility of the purchaser.

4. Efficiency in record keeping is hindered.

5. A central authority who is responsible for evaluating and comparing the purchasing procedures of subordinate units is not available.

6. There are a greater number of personnel involved in the purchasing function.

7. Quantity discounts are not used.

8. Subordinate units are allowed to pay different prices for the same item.

9. Continuity of supply is more difficult to maintain.

10. Effective inventory control is difficult to achieve.

11. The advantage of contract buying or blanket ordering is decreased.

Second alternative system

The second alternative considered was the establishment of a centralized control system within each of the hospitals and clinics of the PMS. This would allow a single person (preferably the business manager) to be given the responsibility for maintaining a purchase order log book and recording all purchase order numbers from the organization. A purchase order would be required for all purchases including those made by the dietary and the building and grounds departments. All invoices forwarded to the central accounting office would be accompanied by a copy of the original purchase order and approved for payment either by the administrator or the business manager. The latter would take on the additional responsibility of evaluating all purchases and for conducting frequent price comparisons with other units in the PMS.

The advantages of a centralized control system would be:

1. A central record within the unit of all purchases made by the organization would be provided.

2. A means for price comparison with other units would be provided.

3. A means for the evaluation of purchasing procedures would be provided.

4. Department heads would be encouraged to exercise more discretion in seeking the right item at the right price.

5. Specialization in buying would be facilitated.

The disadvantages of a centralized control system of purchasing would be:

1. Greater duplication of effort would occur.

2. The purchasing functions would be a secondary responsibility of the purchaser.

3. Adequate time would not be allowed the purchaser to investigate various sources of supply in securing the best item at the lowest cost.

4. Control at the PMS's level would not be provided to periodically evaluate and compare the overall purchasing process.

5. More personnel would be involved in the purchasing function.

6. Quantity discounts would not be taken advantage of.

7. Effective inventory control would not be provided.

8. Contract buying or blanket ordering would not be as effectively employed.

9. A change in current procedures would be required.

Third alternative system

The third alternative considered was the establishment of a centralized purchasing system, in which the purchasing of all consumable supplies would be done by a single person with the exception of certain local purchase items used by the dietary and the buildings and grounds departments. Under this system, the PMS would employ the full-time services of a purchasing agent with an office established at the PMS. His primary responsibilities would be to accomplish all purchasing by negotiations, bids, blanket contracts, or other acceptable purchasing methods. Requirements determination would continue to be made by the department head in each of the subordinate units. Department heads would initiate purchase order requests and send them to the business manager to be logged in. In a period of time, economic inventory levels could be established for high dollar value and high turnover items, allowing for the scheduled submission of purchase order requests. Under this system the purchasing agent would have the authority to select vendors, negotiate bids and contracts, conduct routine inspections of purchasing records and procedures at the

subordinate units, and establish purchasing procedures or institute changes to procedures within the subordinate units. Inventory control would remain decentralized, as supplies would be shipped direct from the supplier to the department heads within each hospital and clinic.

The advantages of a centralized purchasing system would be:

1. The entire purchasing function would be placed in the hands of a single person.

2. Duplication of effort would be minimized.

3. Quantity discounts would be more effectively negotiated.

4. All units would pay the same price for supplies.

5. Specialization in purchasing would be developed.

6. Highly specialized department heads would be permitted to continue to select the item they desire.

7. Administrative expenses would be reduced for vendors.

8. Transportation costs would be saved through coordinated deliveries.

9. Department heads would be relieved of the responsibility for purchasing.

10. Decisions made by the management would be based on more appropriate data.

11. The use of contract negotiation and blanket ordering would be facilitated.

12. The standardization of supplies would be enhanced.

The disadvantages of a centralized purchasing system would be:

1. A change in the current system would be required.

2. The contact between the vendor and the department head would be minimized, thus the exchange of information on new items would be reduced.

3. The hiring of additional personnel would be required.

4. A longer lead time would be necessary for the ordering of supplies.

5. The introduction of a new form (the purchase order request) would be required.

Summary

In recent years new techniques of management have been applied by hospital administrators in the purchasing

and control of inventories. In most industries the purchasing function has been elevated to the management level and appears to be following the same trend in our nation's hospitals.

Three types of purchasing systems are commonly used by today's hospitals: centralized, decentralized, and centralized control of purchasing. Although it is unusual to find a pure system used, most authors seem to favor centralized purchasing.

The PMS employed a completely decentralized system of purchasing, since authority for purchasing had been delegated from the central office to the unit management level and from there to the user level.

An in-depth study of the purchasing procedures that were in use at the Embudo Presbyterian Hospital revealed the characteristics of the decentralized systems that were also being used by the other units of the PMS.

In determining the best purchasing system for the PMS, three alternatives were considered. The first was the continuation of the current system of decentralized purchasing. The major advantages of this alternative were: no change in the current procedures would be required; the specialist would be allowed to continue purchasing the

supplies he thought were best; and no additional personnel would be required. Its major disadvantages would be: valuable time on the part of the purchaser would be taken up; many personnel would be involved in the purchasing function; subordinate units would pay higher prices than other units for the same items; and there would be no central authority that would be responsible to the executive director for the materials management function.

The second alternative system considered was the establishment of a centralized control system. The major advantages in this system were: a central record would be provided within each unit of all purchases made by the organization; specialization in buying would be utilized; the purchaser would be encouraged to exercise more discretion in buying the right item at the right price; and a means for the evaluation of purchasing procedures would be provided. The major disadvantages of the second alternative system were: duplication of effort would be generated; the purchasing function would become a secondary responsibility of the purchaser; and a central authority on materials management would not be provided.

The third alternative considered was the

establishment of a centralized purchasing system in which the purchasing of all consumable supplies would be done by a single person. The advantages of this system were: the entire purchasing function would be placed in the hands of a single person; quantity discounts would be facilitated; department heads would be relieved of the purchasing responsibility; and the use of contract negotiation and blanket ordering would be possible. The major disadvantages of the third alternative were: a change in the current system would be required; the hiring of additional personnel would be required; a longer lead time in the ordering of supplies would be necessary; and contact between the vendor and the specialist would be minimized, precluding the exchange of information on new items.

Footnotes

[1]Pauley, p. 78.

[2]MacEachern, p. 914.

[3]Ibid., pp. 914-15.

[4]Ibid., p. 915.

[5]Lee and Dobler, p. 19.

[6]MacEachern, p. 922.

[7]Fearon, p. 60.

[8]Ibid., p. 65.

[9]Lee and Dobler, pp. 9-10.

[10]Fearon, p. 61.

[11]Jordan London, "Centralized Purchasing for the Smaller Hospital," Hospital Management, XCVI (September, 1963), 123.

[12]Paul E. Widman, "Centralized Purchasing Makes Sense," Hospitals, XXX (March, 1956), 73.

[13]MacEachern, p. 916.

[14]Heinritz and Farrell, p. 7.

[15]Fearon, p. 60.

[16]Ammer, p. 211.

CHAPTER IV

CONCLUSION

Conclusion

The best purchasing system for the Presbyterian Medical Services of the Southwest, Santa Fe, New Mexico, is a centralized purchasing system in which the purchasing of all consumable supplies is done by a single person except for certain local purchase items used by the dietary, and the buildings and grounds departments of the subordinate units.

Recommendations

On the basis of the findings evolving from this study, it is recommended that the PMS:

1. Employ the services of a full-time purchasing agent to effect all purchases of consumable supplies used by their subordinate units, except local purchase items used by the dietary and the buildings and grounds departments at the various units.

2. Designate the purchasing agent as an assistant administrator and place him in charge of materials

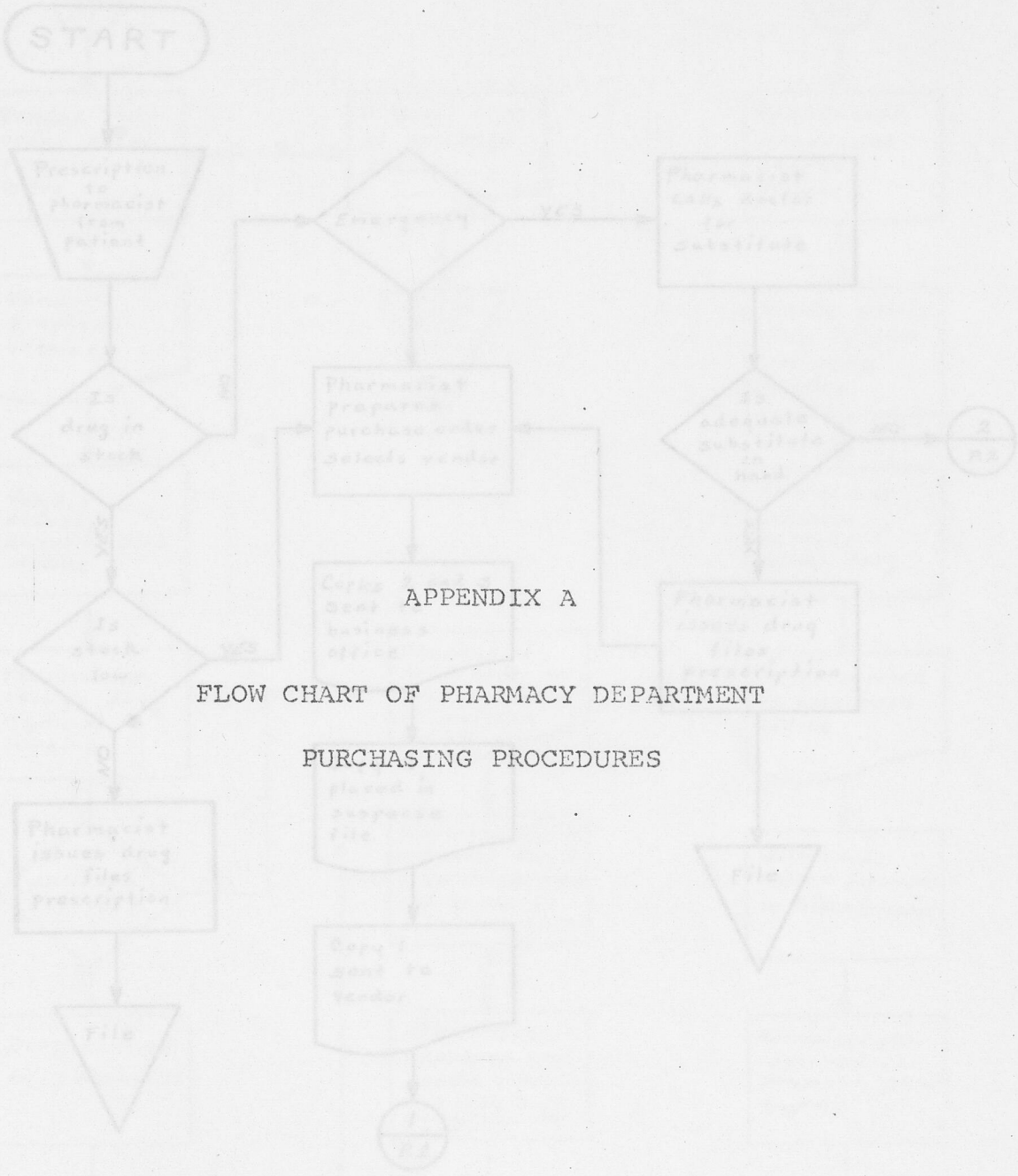
management, giving him staff responsibility for all matters pertaining to that function.

3. Establish a centralized purchasing system under the control of the materials manager.

4. Continue to store consumable supplies on a decentralized basis causing minimal interruption in routine operations within the hospitals and clinics. Utilize direct shipment of supplies from the supplier to the using unit.

5. Have all purchase requests routed through the business manager at each unit. Require the business manager to log in all purchase requests and to maintain one copy on file.

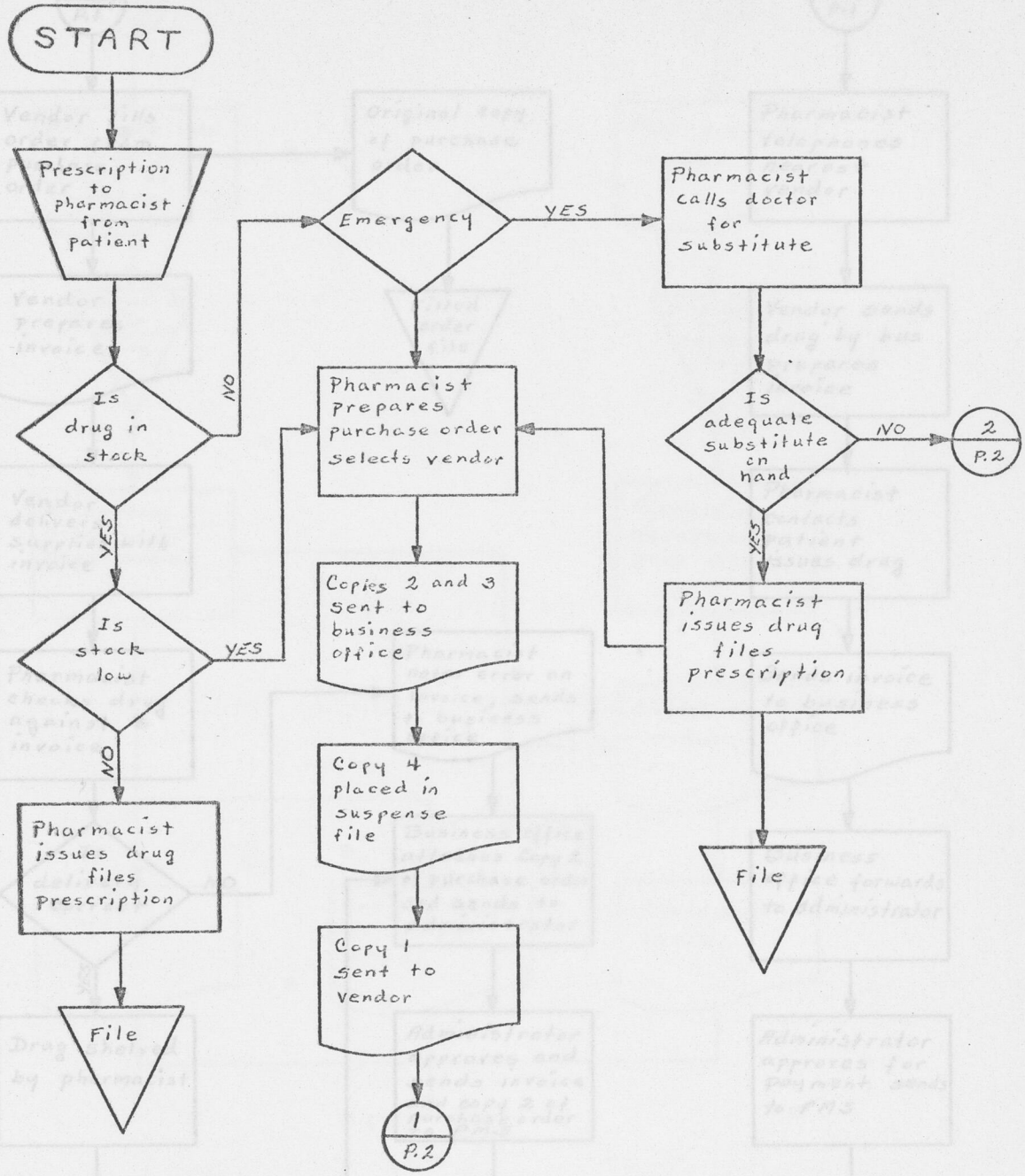
6. Make maximum use of price negotiation, contract bidding, and blanket ordering.



APPENDIX A

FLOW CHART OF PHARMACY DEPARTMENT

PURCHASING PROCEDURES



Note:

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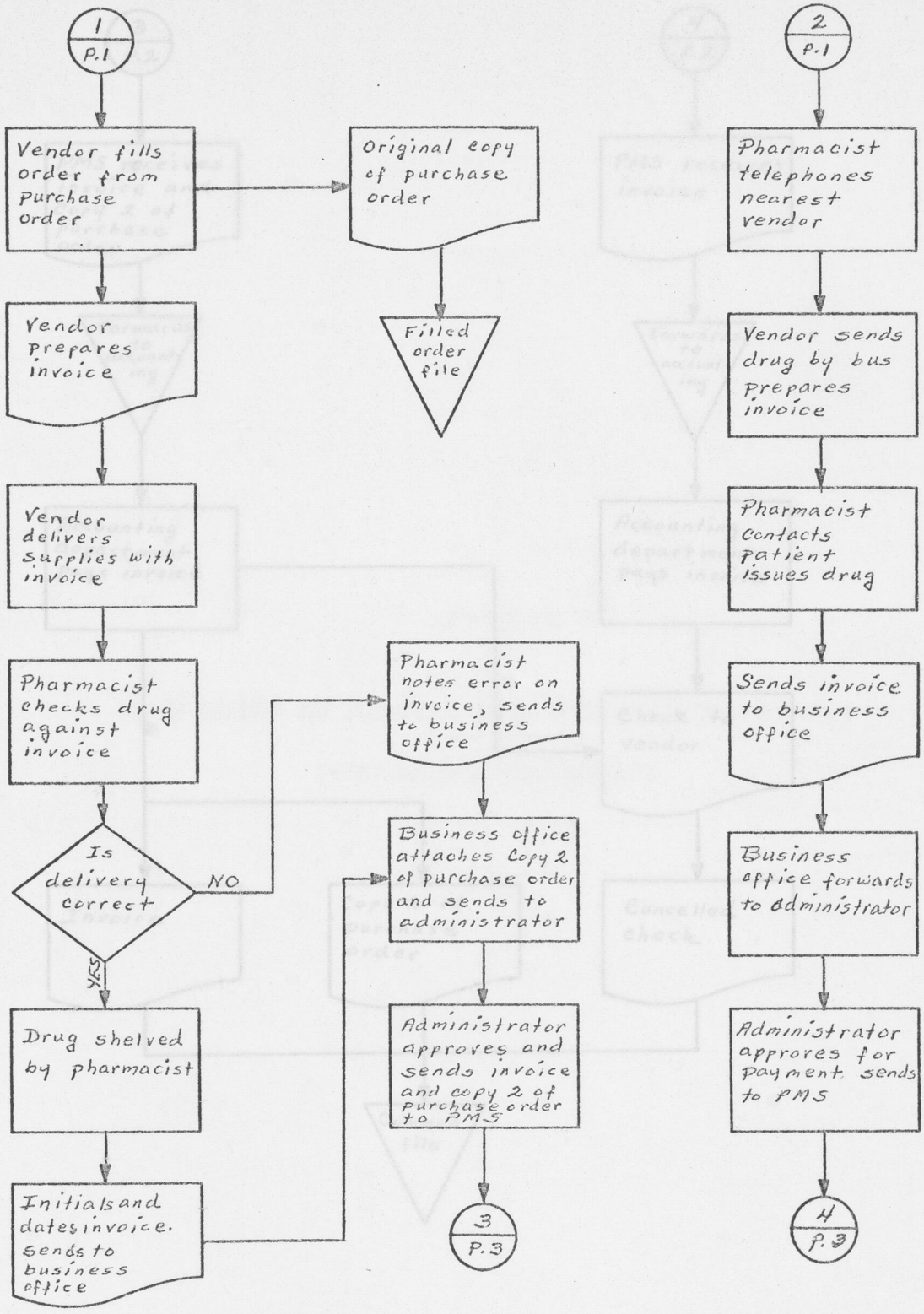
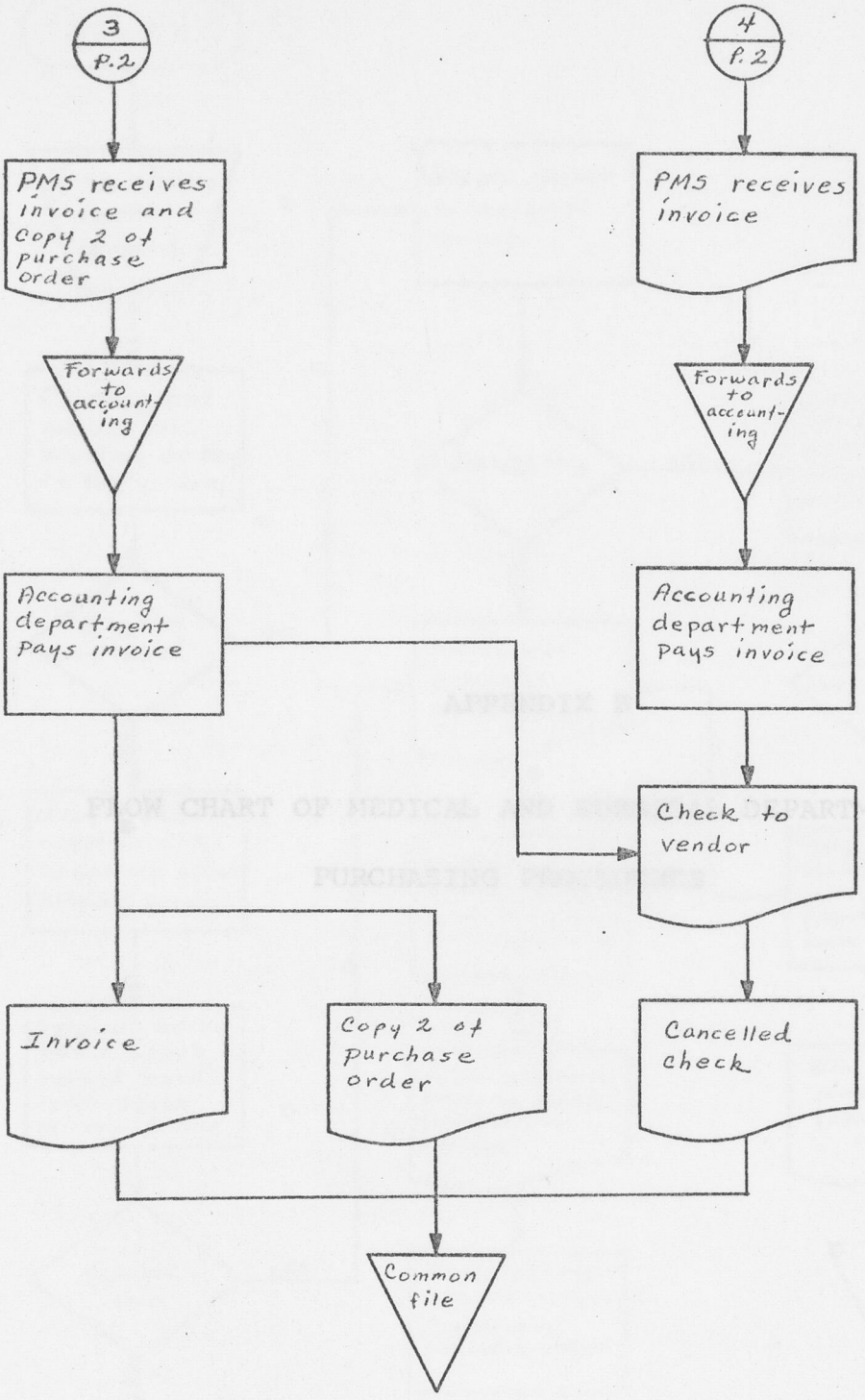
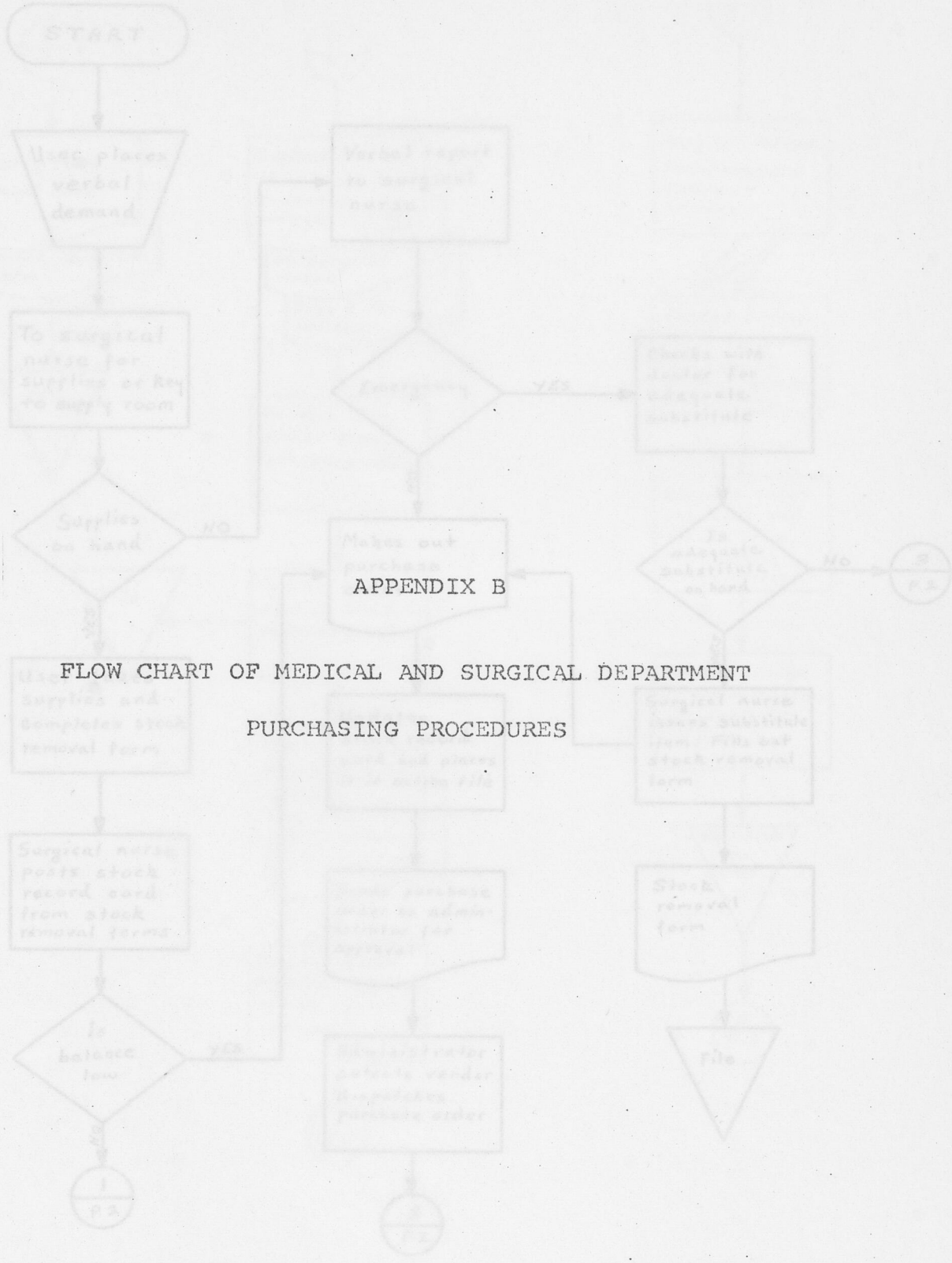

1
P.1
Vendor fills order from purchase order
Original copy of purchase order
Filled order file
Vendor prepares invoice
Vendor delivers supplies with invoice
Pharmacist checks drug against invoice
Is delivery correct
NO
YES
Pharmacist notes error on invoice, sends to business office
Business office attaches Copy 2 of purchase order and sends to administrator
Drug shelved by pharmacist
Initials and dates invoice. Sends to business office
Administrator approves and sends invoice and copy 2 of purchase order to PMS
3
P.3
2
P.1
Pharmacist telephones nearest vendor
Vendor sends drug by bus prepares invoice
Pharmacist contacts patient issues drug
Sends invoice to business office
Business office forwards to administrator
Administrator approves for payment sends to PMS
4
P.3


3
P.2
4
P.2
PMS receives invoice and copy 2 of purchase order
PMS receives invoice
Forwards to account ing
Forwards to account-ing
Accounting department pays invoice
Accounting department pays invoice
Check to vendor
Invoice
Copy 2 of purchase order
Cancelled check
Common file

APPENDIX B

FLOW CHART OF MEDICAL AND SURGICAL DEPARTMENT

PURCHASING PROCEDURES



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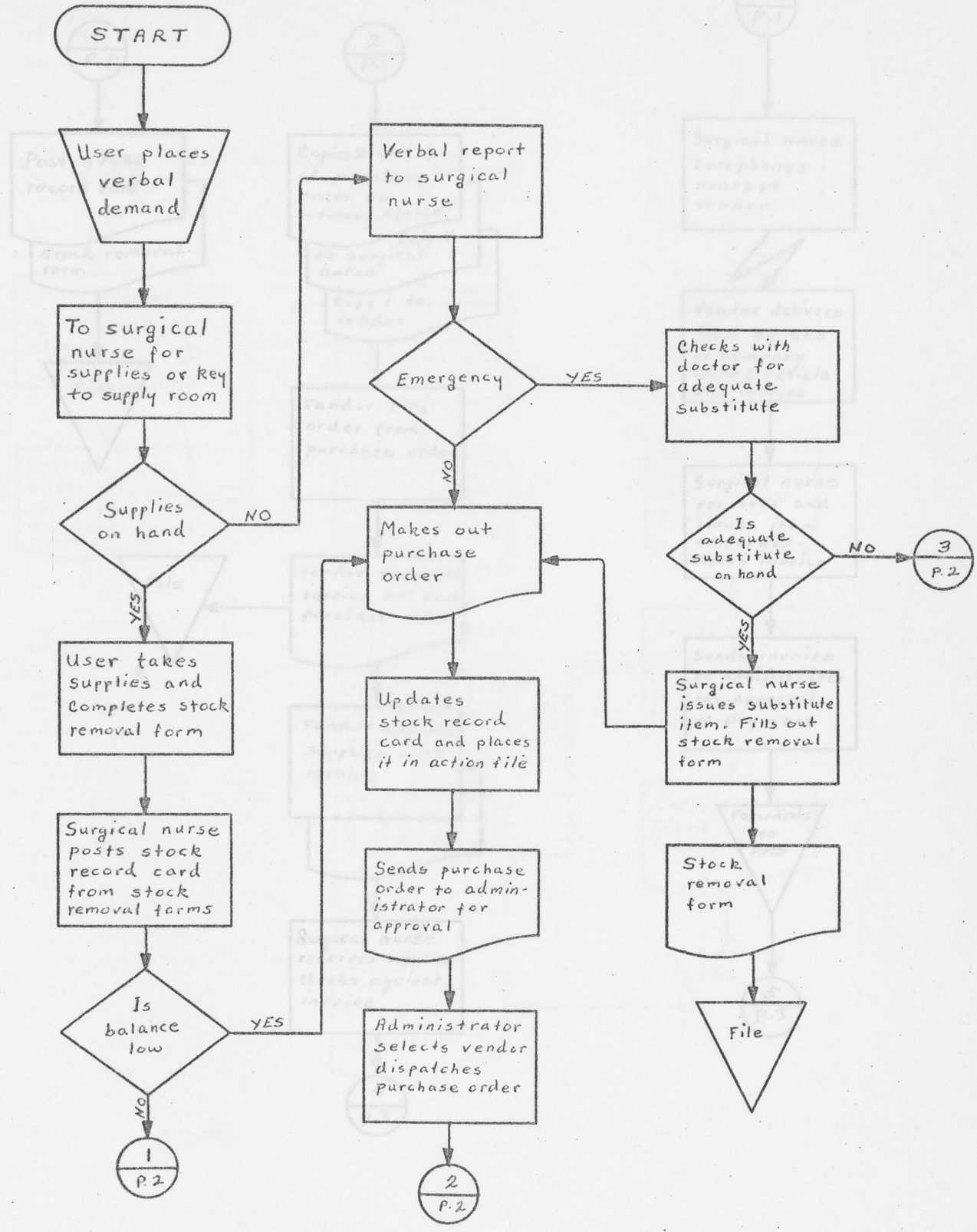

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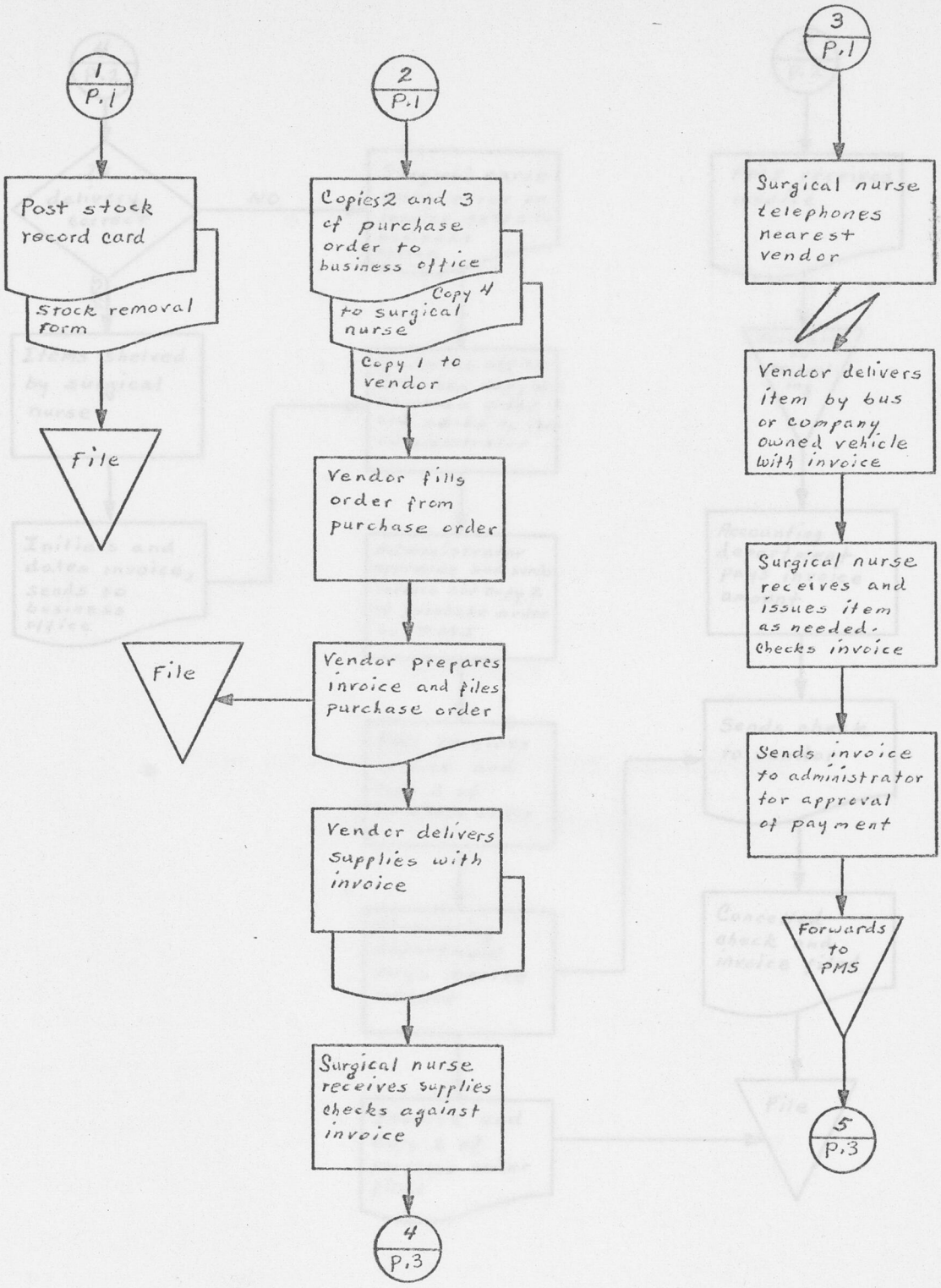
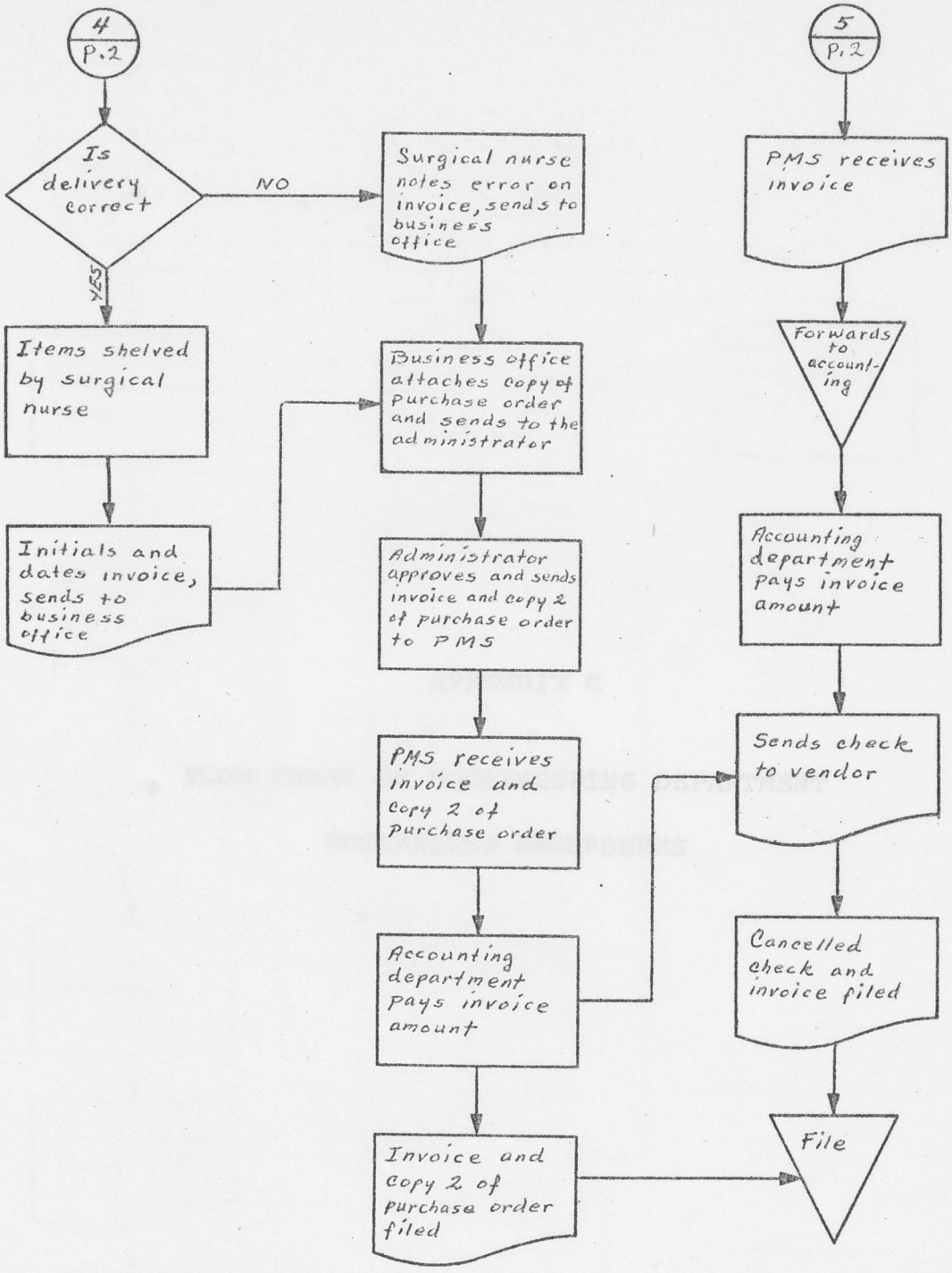
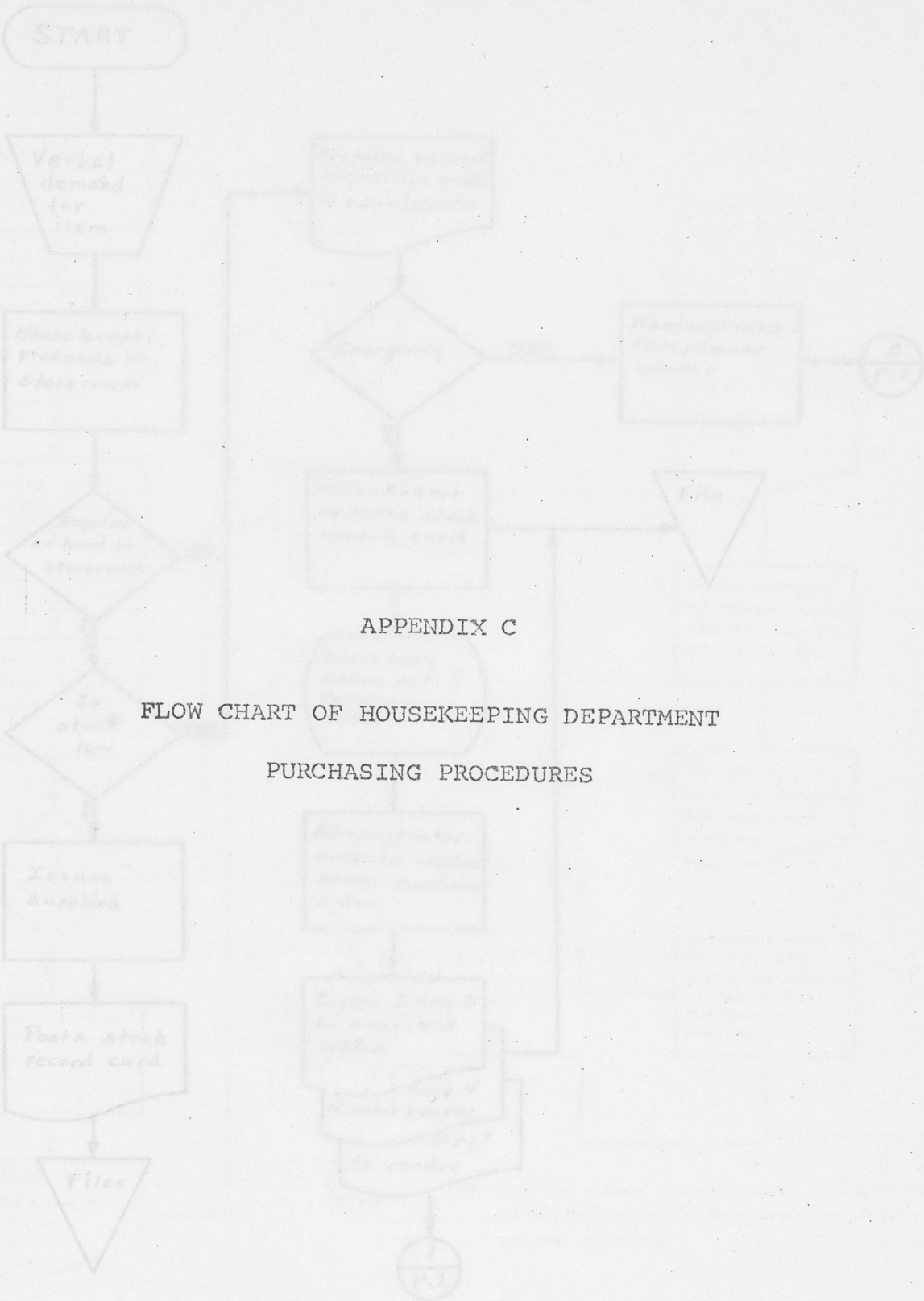

1
P.1
Post stock record card
Stock removal form
File
2
P.1
Copies 2 and 3 of purchase order to business office
Copy 4 to surgical nurse
Copy 1 to vendor
Vendor fills order from purchase order
File
Vendor prepares invoice and files purchase order
Vendor delivers supplies with invoice
Surgical nurse receives supplies checks against invoice
4
P.3
3
P.1
Surgical nurse telephones nearest vendor
Vendor delivers item by bus or company owned vehicle with invoice
Surgical nurse receives and issues item as needed. Checks invoice
Sends invoice to administrator for approval of payment
Forwards to PMS
5
P.3


4
P.2
Is delivery correct
NO
YES
Surgical nurse notes error on invoice, sends to business office
Items shelved by surgical nurse
Business office attaches copy of purchase order and sends to the administrator
Initials and dates invoice, sends to business office
Administrator approves and sends invoice and copy 2 of purchase order to PMS
PMS receives invoice and copy 2 of purchase order
Accounting department pays invoice amount
Invoice and copy 2 of purchase order filed
5
P.2
PMS receives invoice
Forwards to accounting
Accounting department pays invoice amount
Sends check to vendor
Cancelled check and invoice filed
File

APPENDIX C

FLOW CHART OF HOUSEKEEPING DEPARTMENT

PURCHASING PROCEDURES



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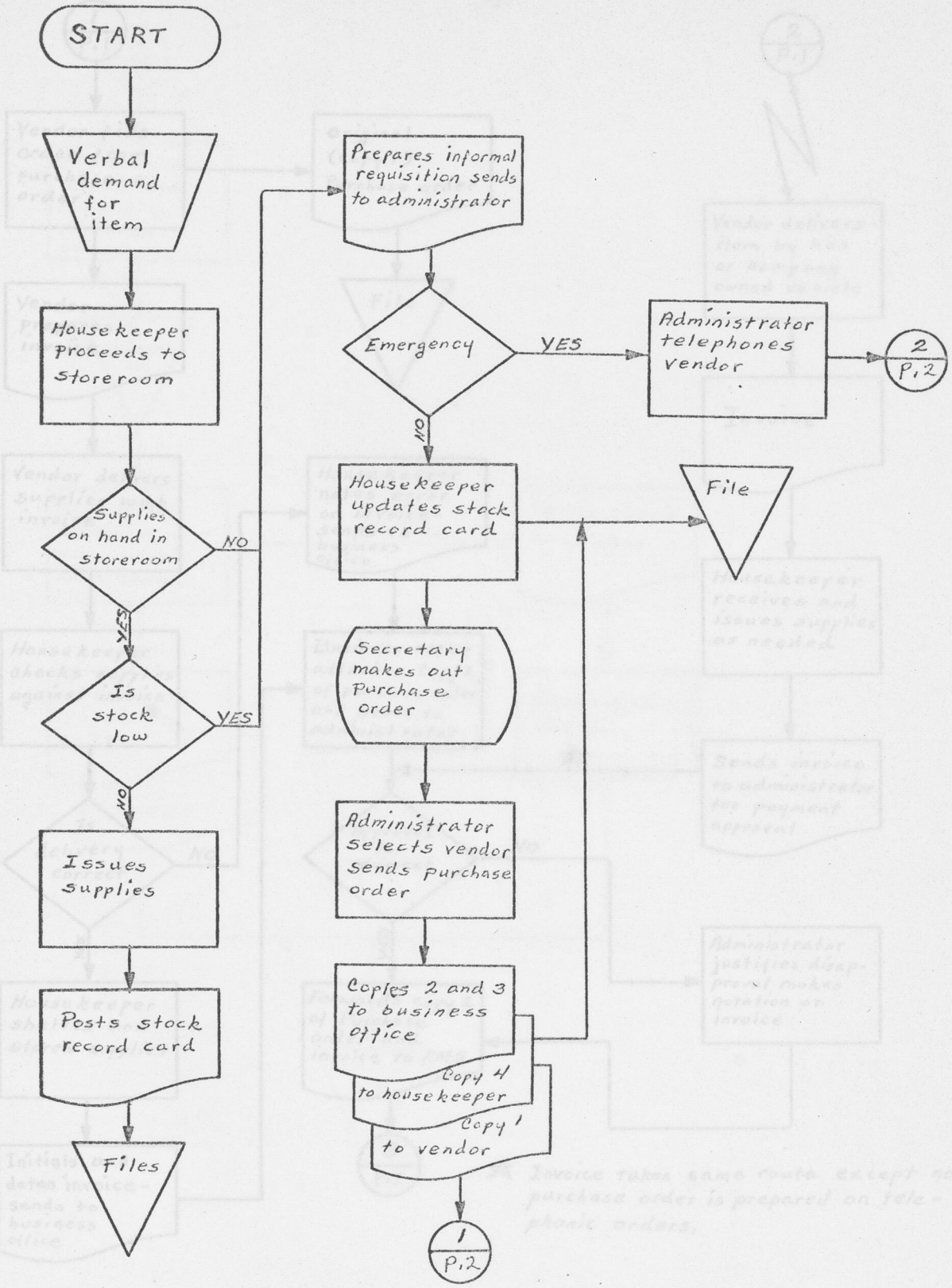

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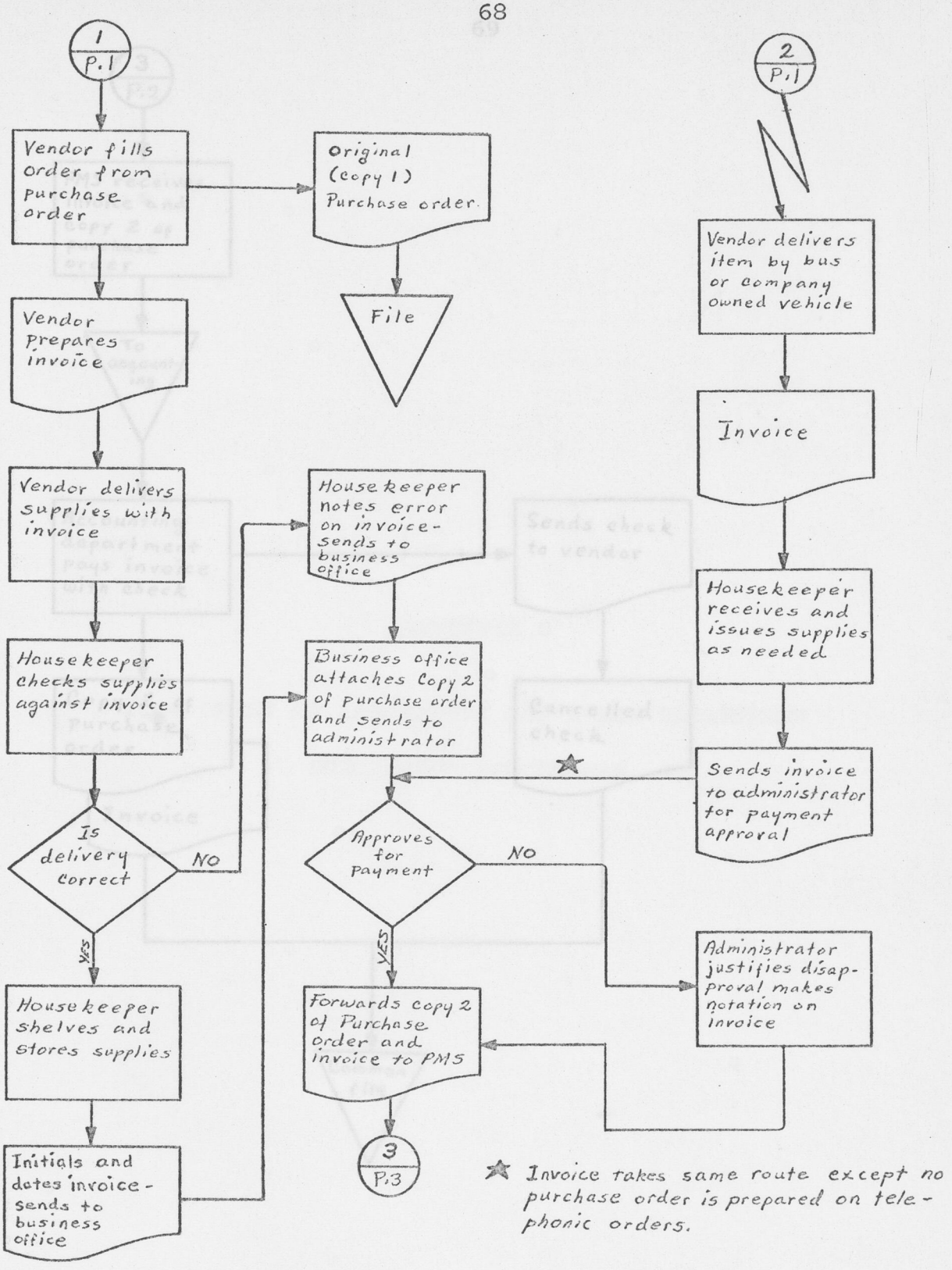
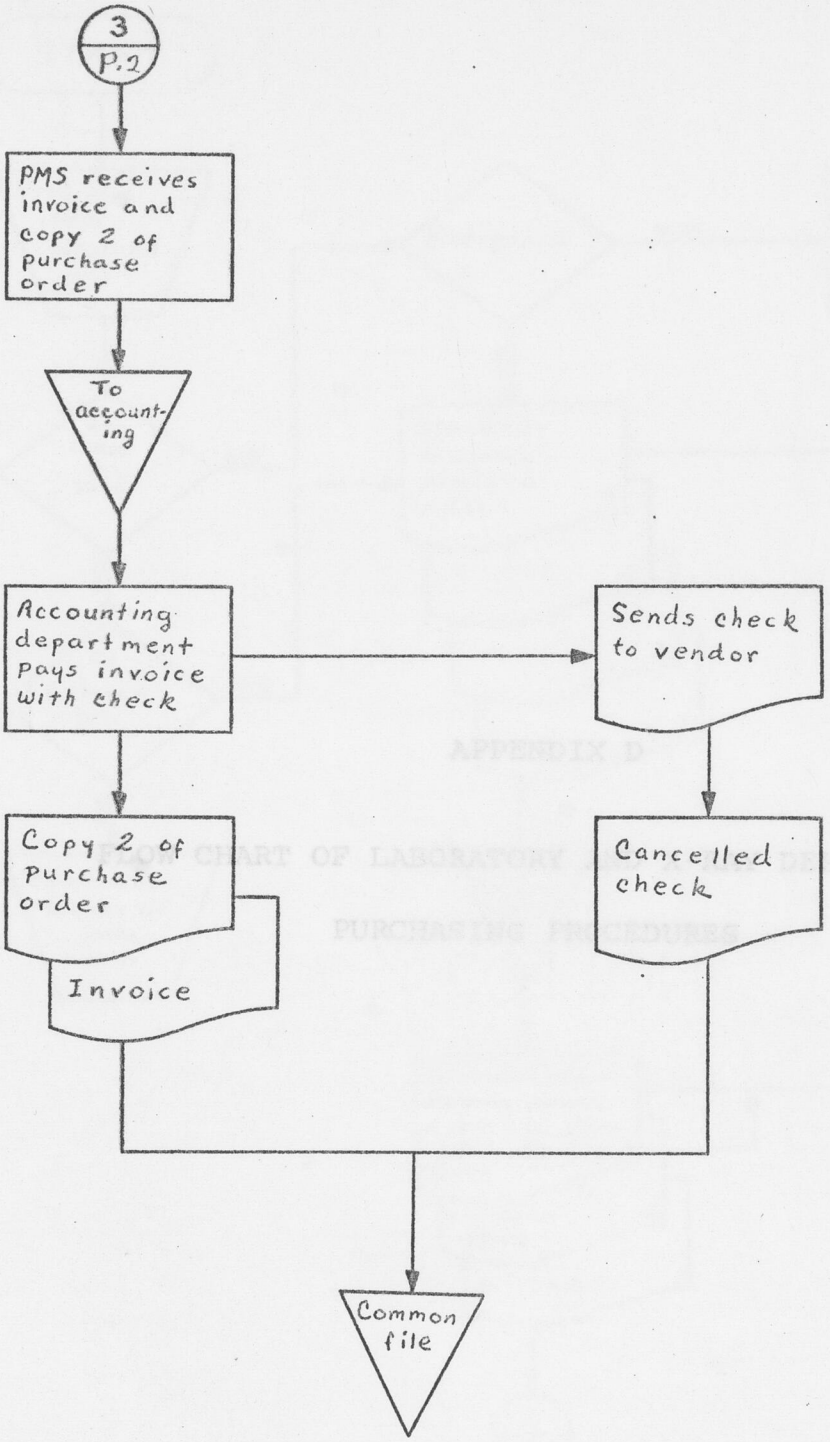
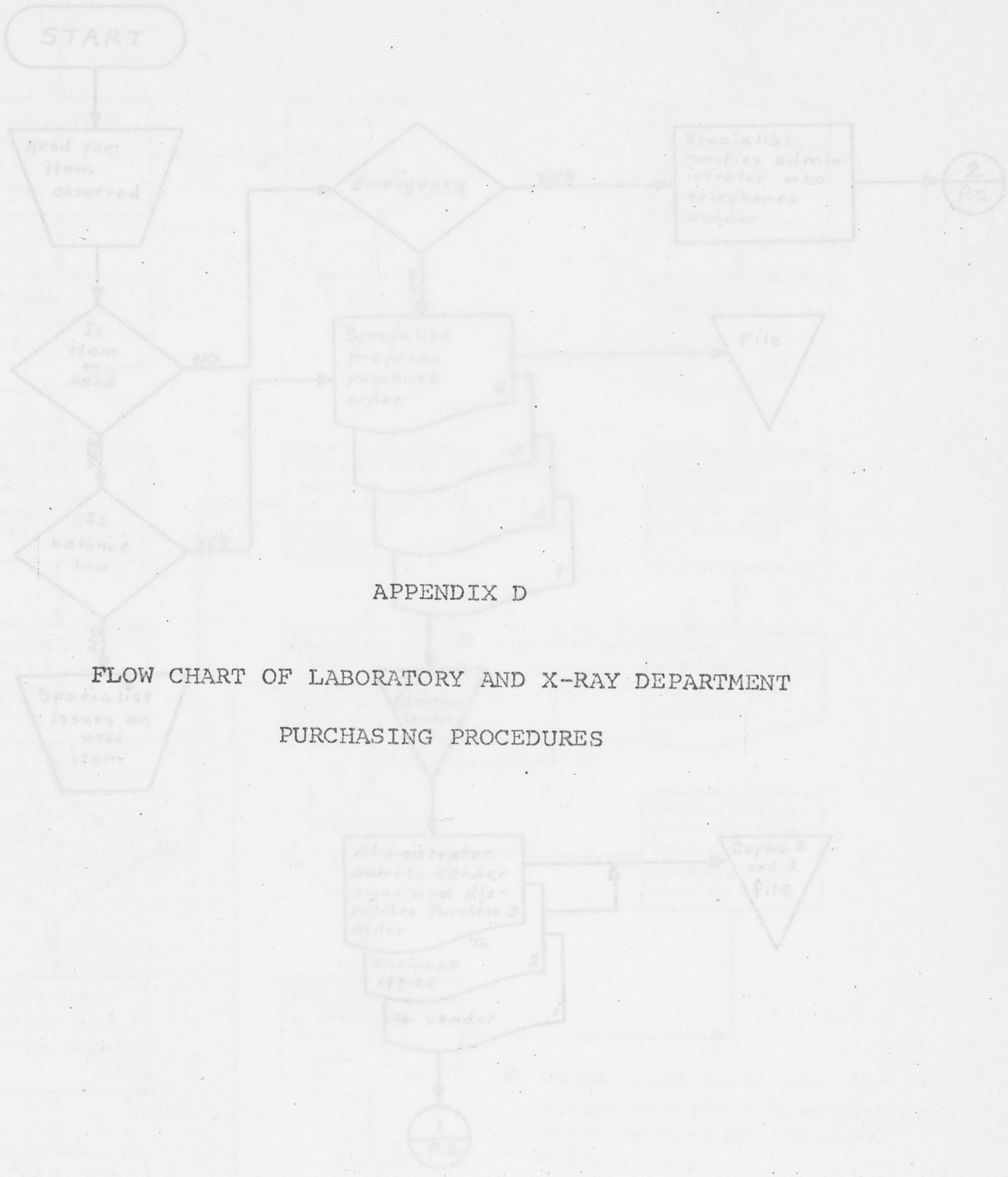

1
P.1
Vendor fills order from purchase order
Original (copy 1) Purchase order
File
Vendor prepares invoice
Vendor delivers supplies with invoice
Housekeeper checks supplies against invoice
Is delivery correct
NO
YES
Housekeeper shelves and stores supplies
Initials and dates invoice - sends to business office
Housekeeper notes error on invoice - sends to business office
Business office attaches Copy 2 of purchase order and sends to administrator
Approves for payment
NO
YES
Forwards copy 2 of Purchase order and invoice to PMS
3
P.3
2
P.1
Vendor delivers item by bus or company owned vehicle
Invoice
Housekeeper receives and issues supplies as needed
Sends invoice to administrator for payment approval
Administrator justifies disapproval makes notation on invoice
★ Invoice takes same route except no purchase order is prepared on telephonic orders.


3
P.2
PMS receives invoice and copy 2 of purchase order
To accounting
Accounting department pays invoice with check
Sends check to vendor
Copy 2 of purchase order
Invoice
Cancelled check
Common file



APPENDIX D

FLOW CHART OF LABORATORY AND X-RAY DEPARTMENT

PURCHASING PROCEDURES

Note:

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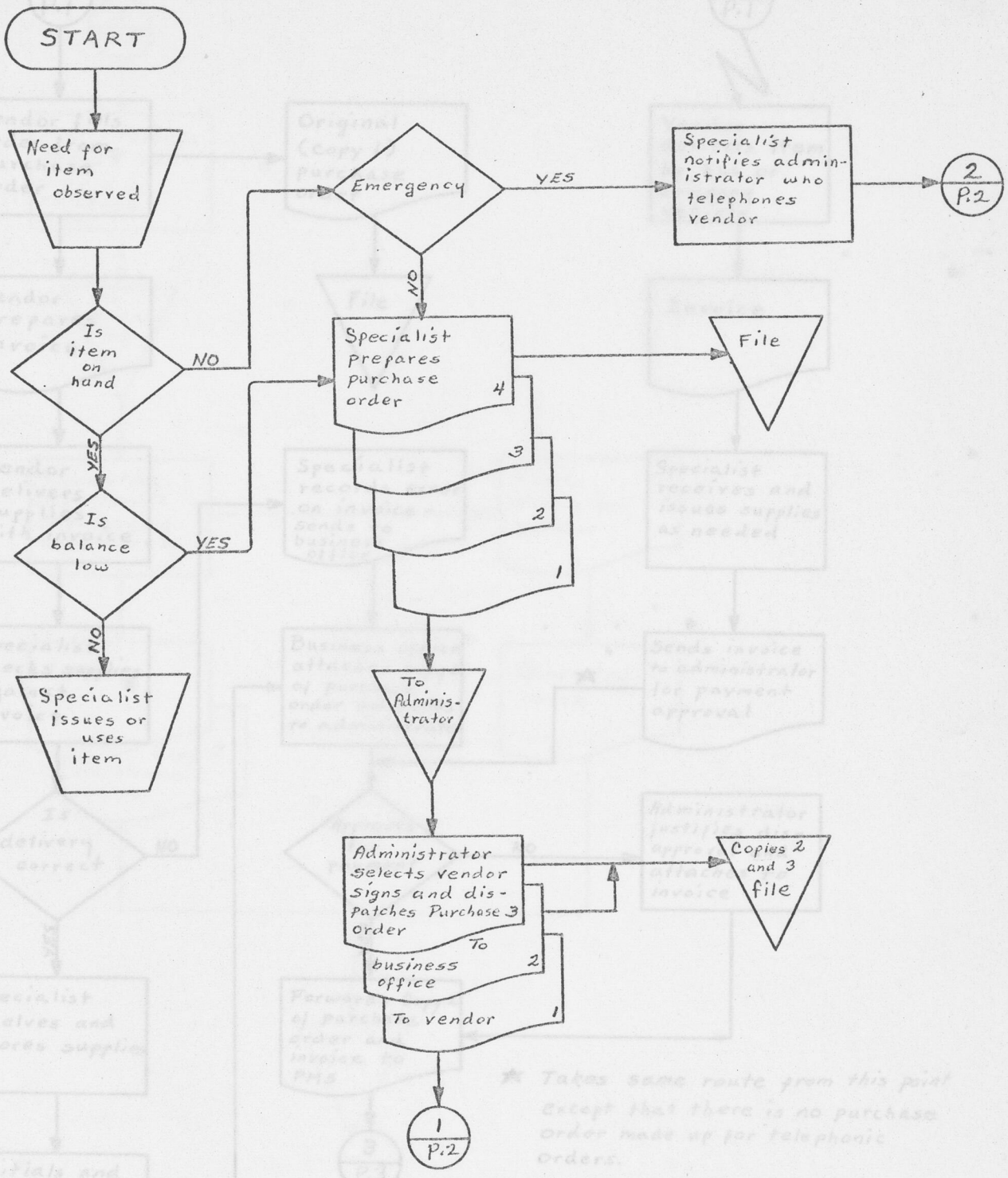

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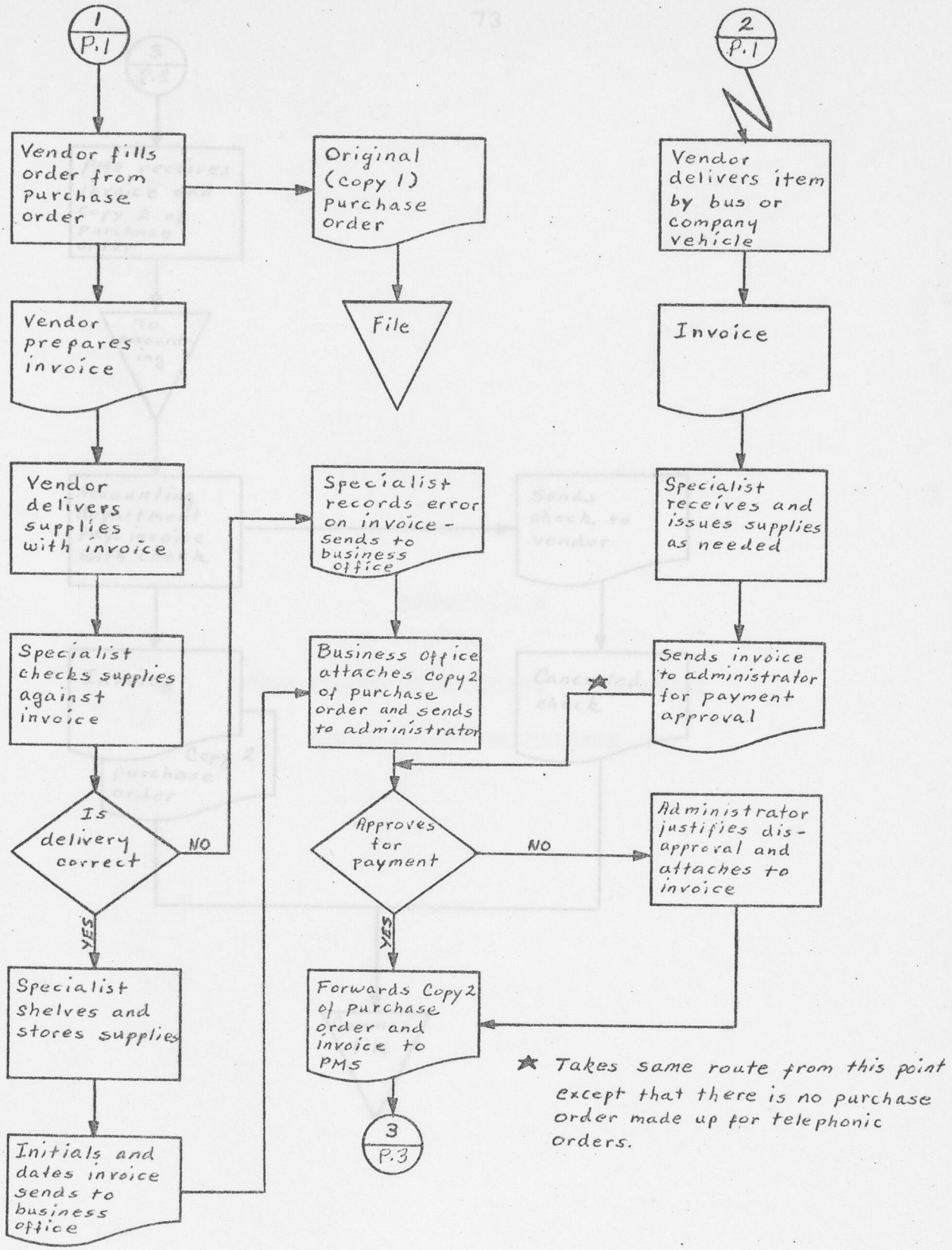
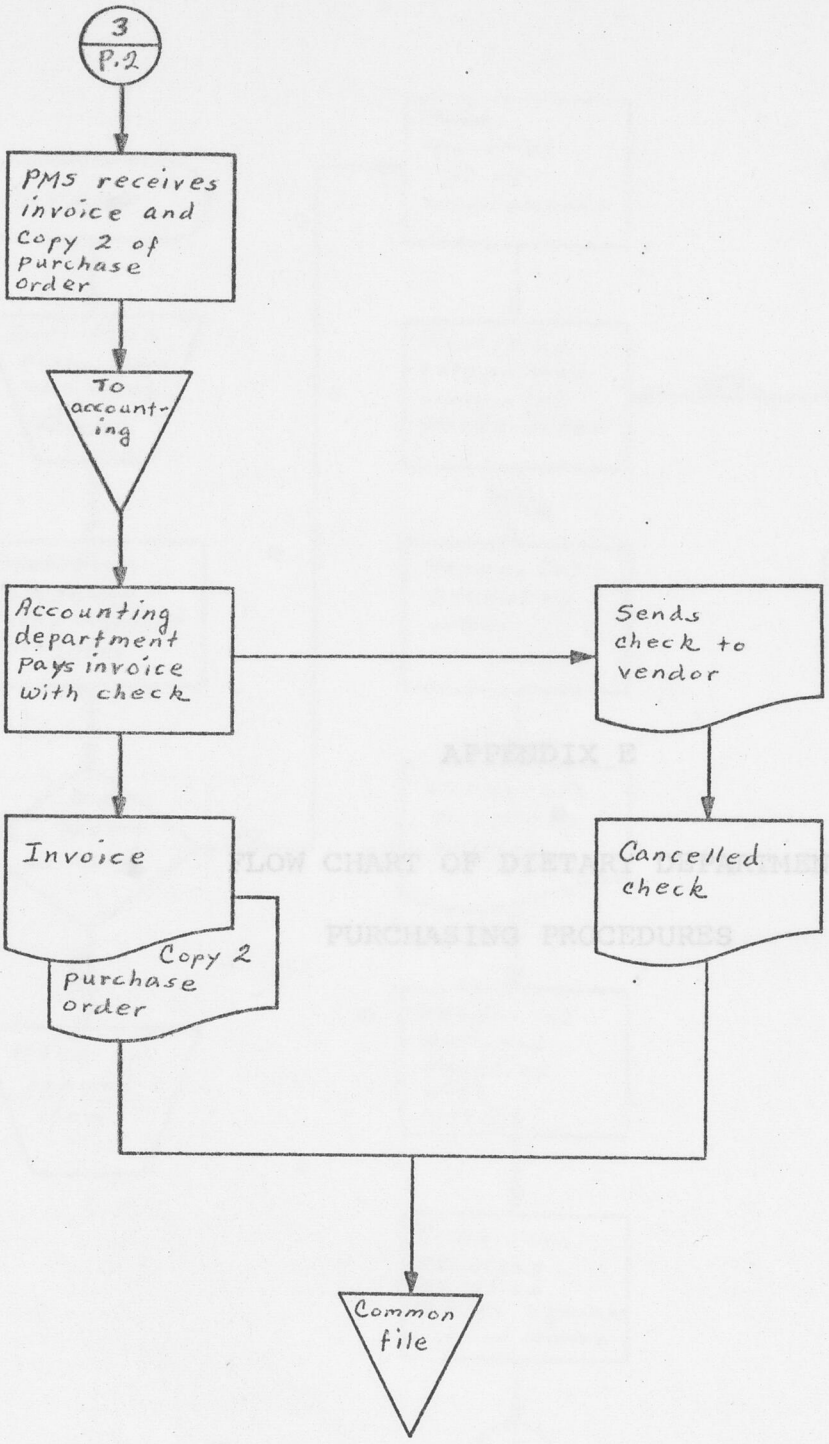
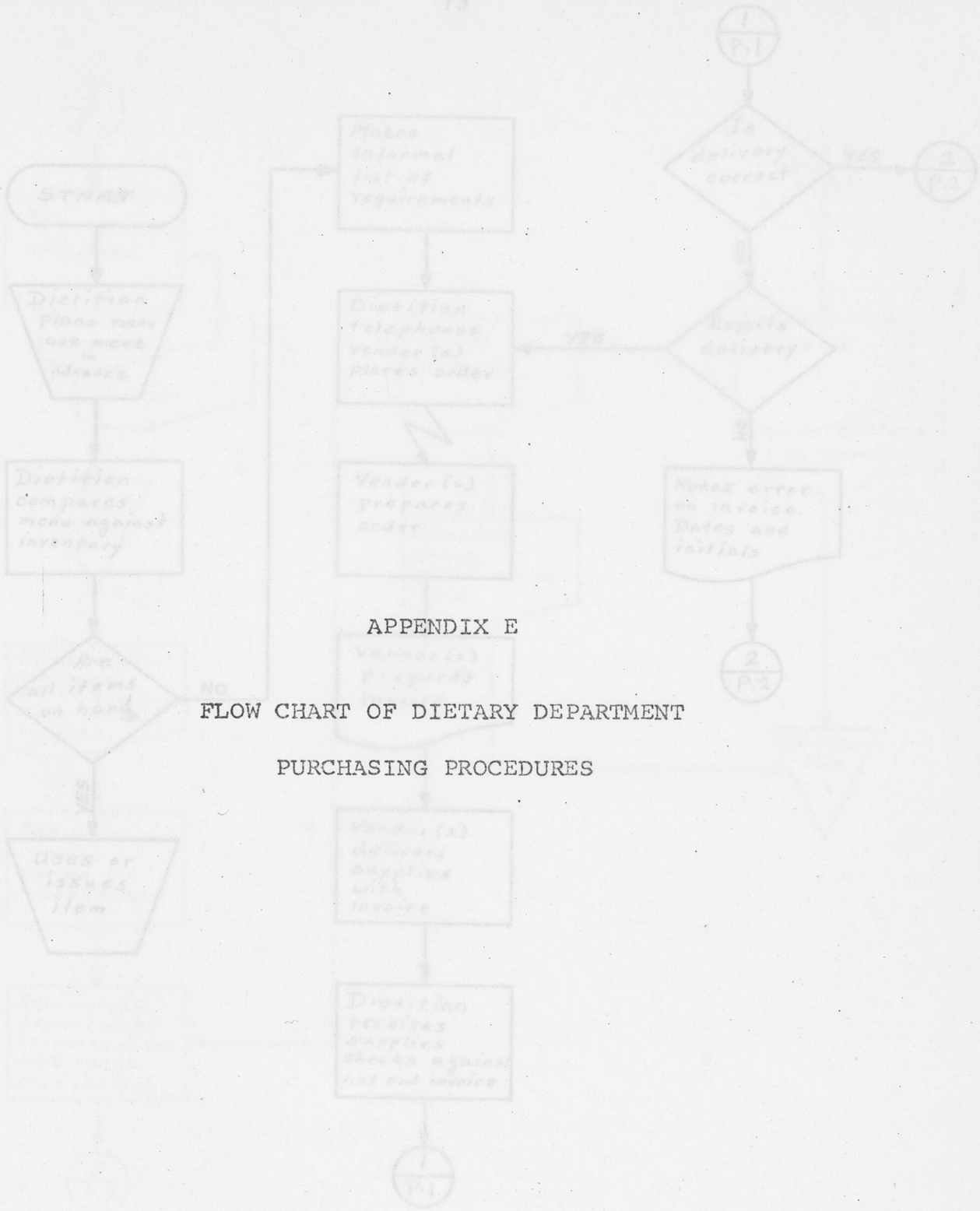

1 P.1
2 P.1
Vendor fills order from purchase order
Original (copy 1) purchase order
File
Vendor delivers item by bus or company vehicle
Vendor prepares invoice
Invoice
Vendor delivers supplies with invoice
Specialist records error on invoice - sends to business office
Specialist receives and issues supplies as needed
Specialist checks supplies against invoice
Business office attaches copy 2 of purchase order and sends to administrator
Sends invoice to administrator for payment approval
Is delivery correct
NO
YES
Approves for payment
NO
YES
Administrator justifies disapproval and attaches to invoice
Specialist shelves and stores supplies
Forwards Copy 2 of purchase order and invoice to PMS
Initials and dates invoice sends to business office
3 P.3
★ Takes same route from this point except that there is no purchase order made up for telephonic orders.


3
P.2
PMS receives invoice and copy 2 of purchase order
To accounting
Accounting department pays invoice with check
Sends check to vendor
Invoice
Copy 2 purchase order
Cancelled check
Common file



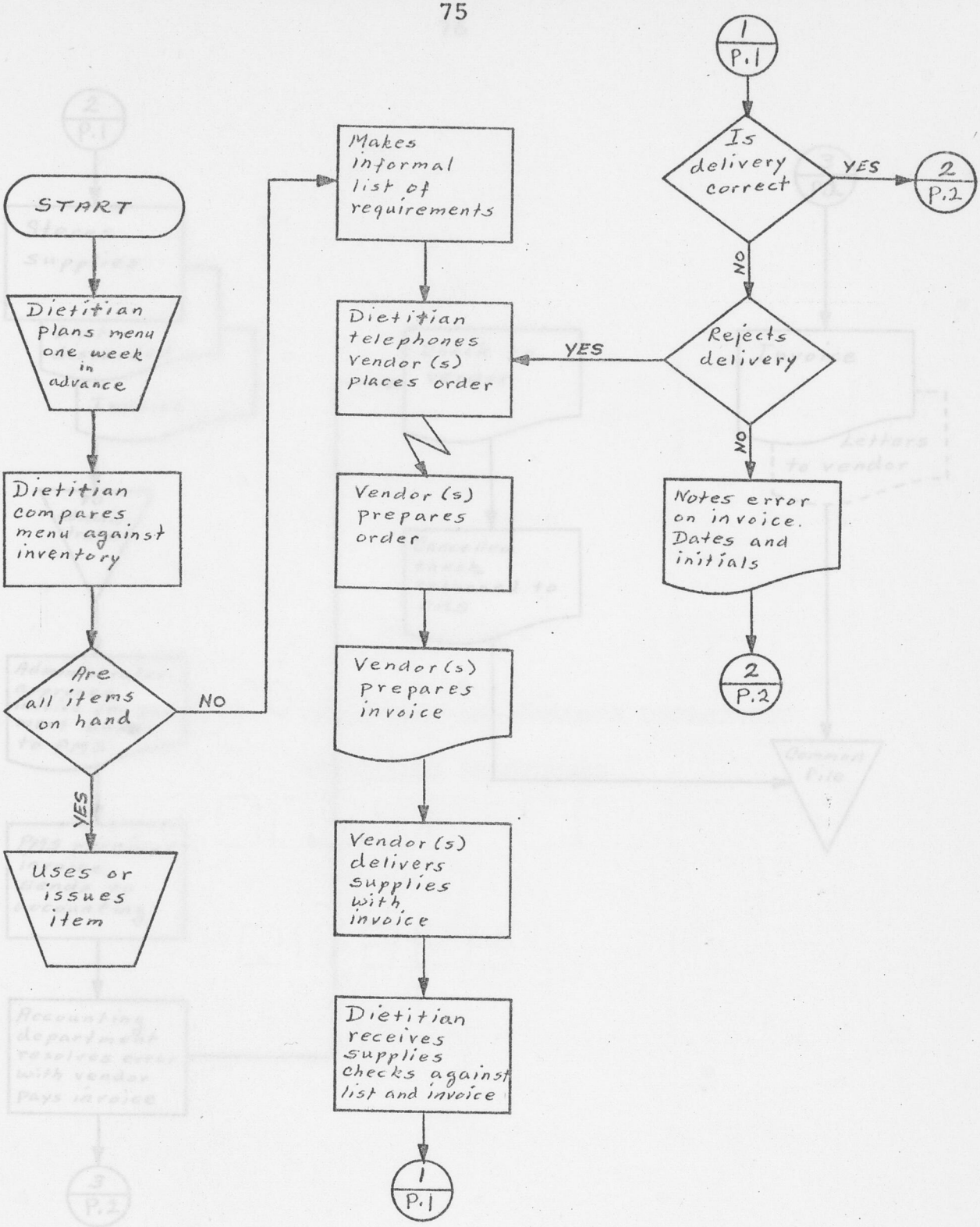
APPENDIX E

FLOW CHART OF DIETARY DEPARTMENT

PURCHASING PROCEDURES

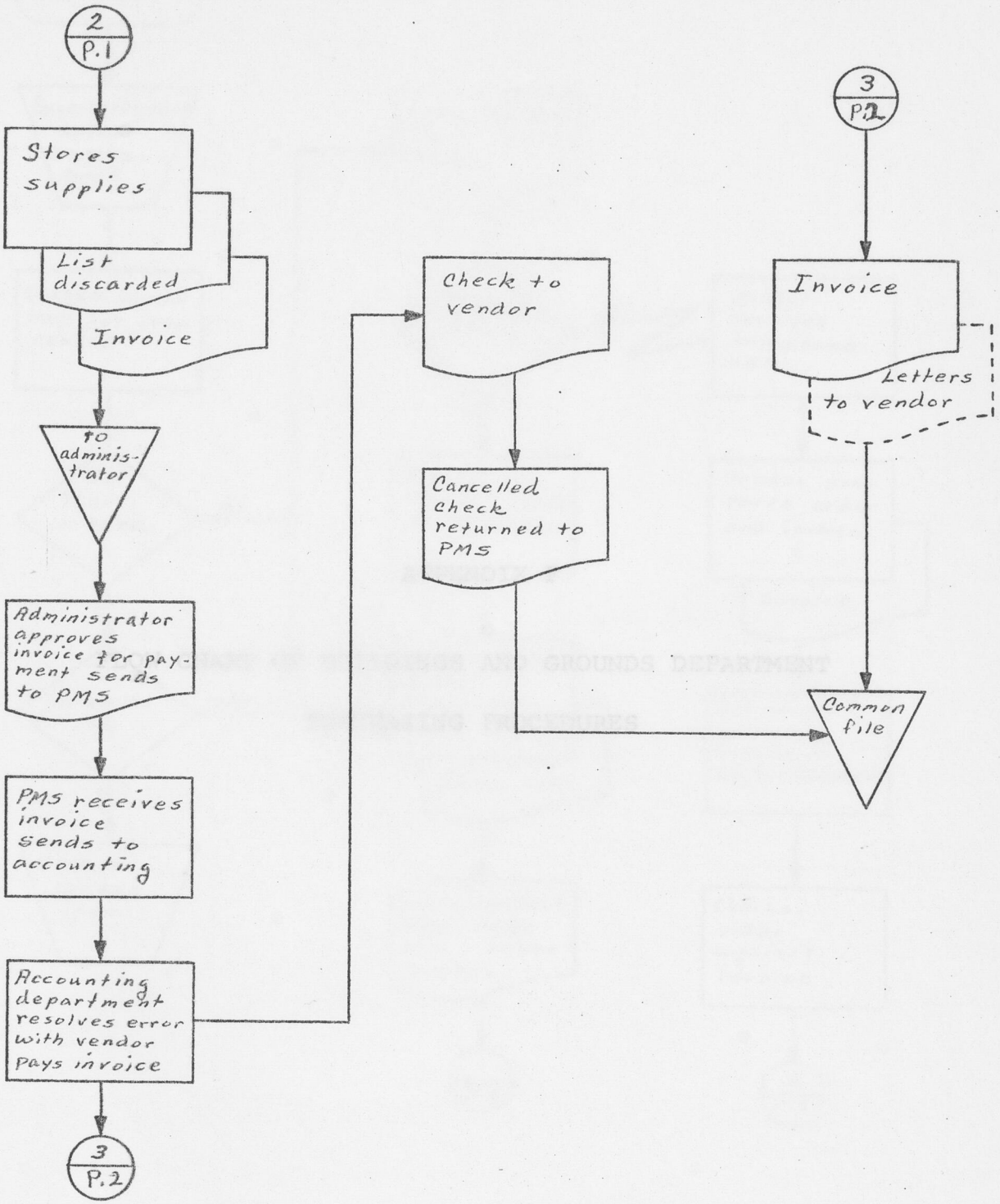
Note:

"1" indicates connecting point; "p" indicates "page number of a departmental system."



Note:

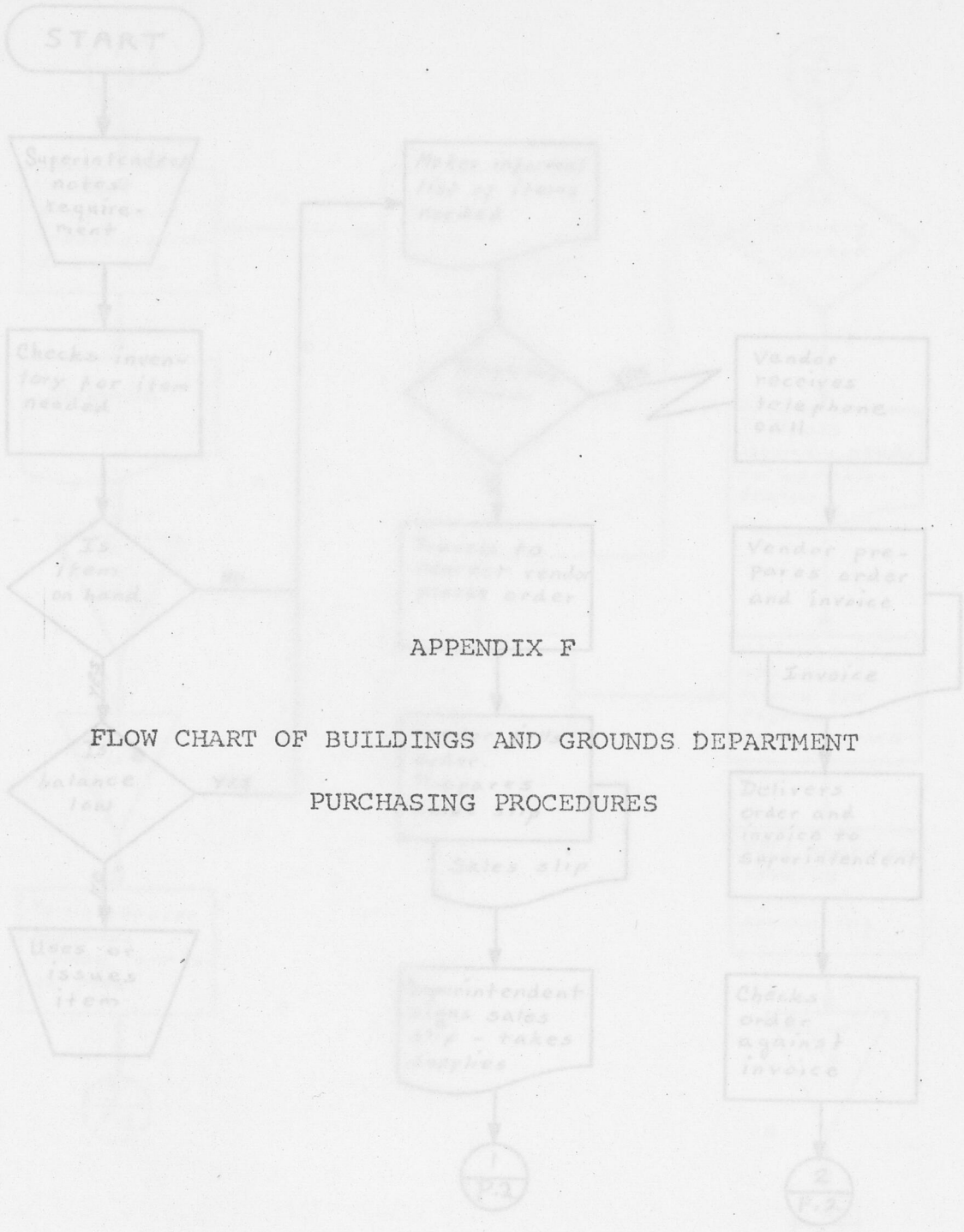
"1" indicates connecting point; "p" indicates "page number of a departmental system."

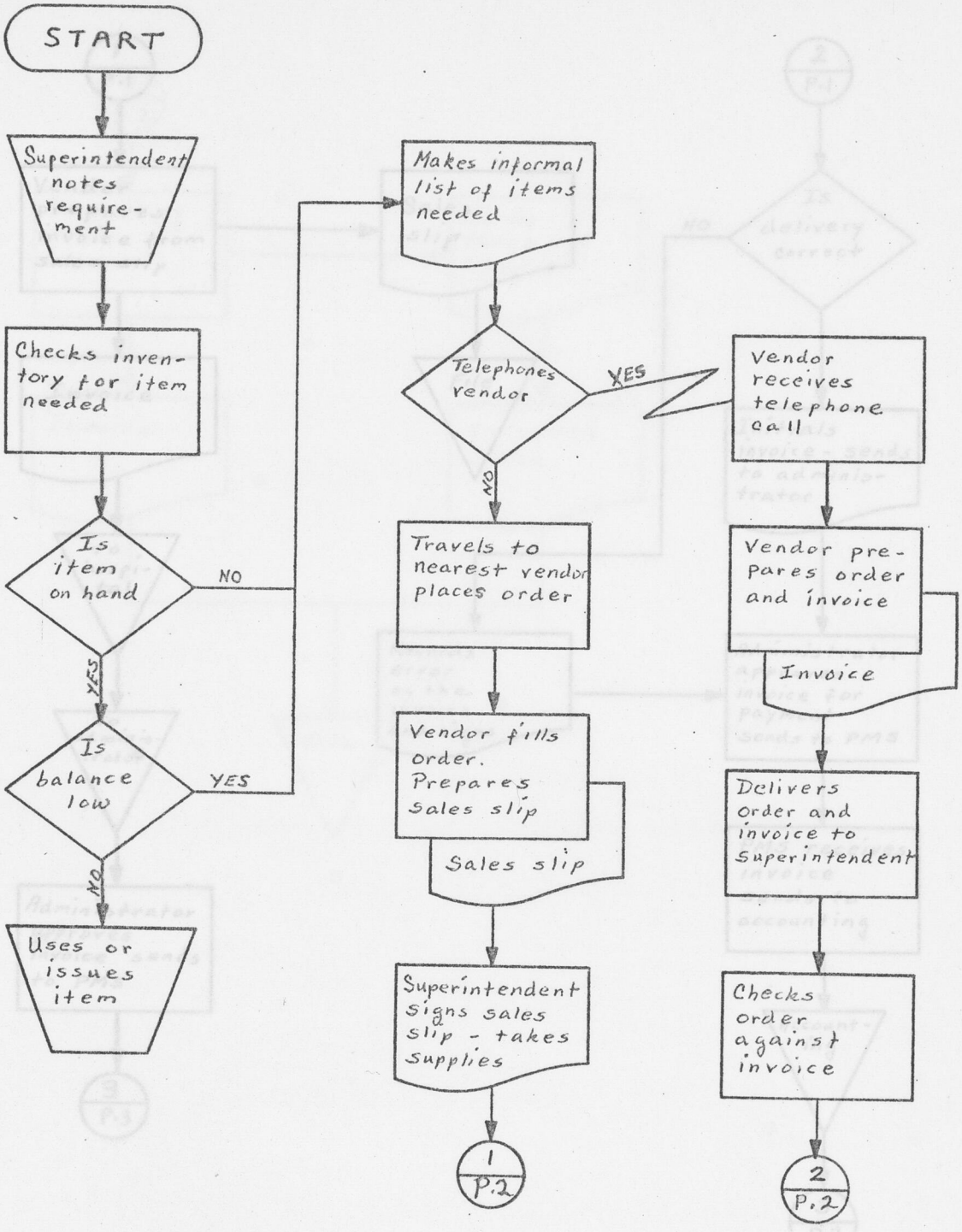

2
P.1
Stores supplies
List discarded
Invoice
to administrator
Administrator approves invoice for payment sends to PMS
PMS receives invoice sends to accounting
Accounting department resolves error with vendor pays invoice
3
P.2
Check to vendor
Cancelled check returned to PMS
3
P.2
Invoice
Letters to vendor
Common file

APPENDIX F

FLOW CHART OF BUILDINGS AND GROUNDS DEPARTMENT

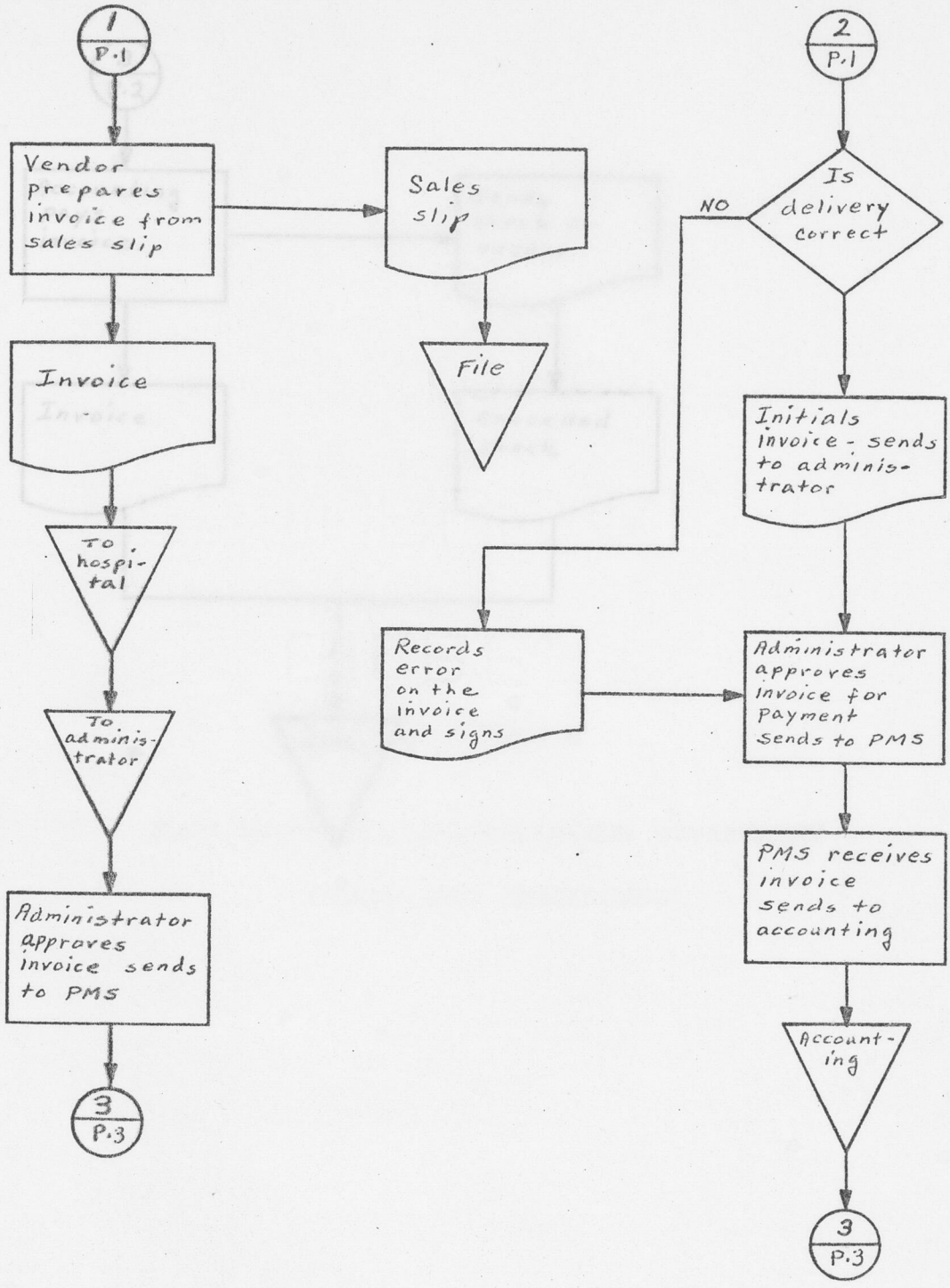
PURCHASING PROCEDURES

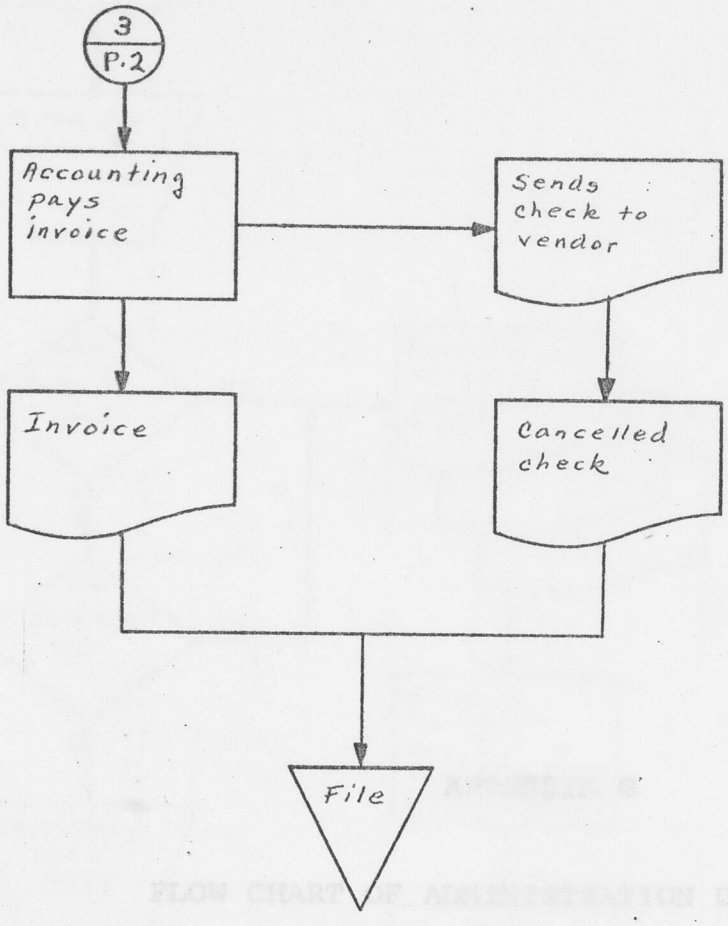




Note:

"1" indicates connecting point; "p" indicates "page number of a departmental system."

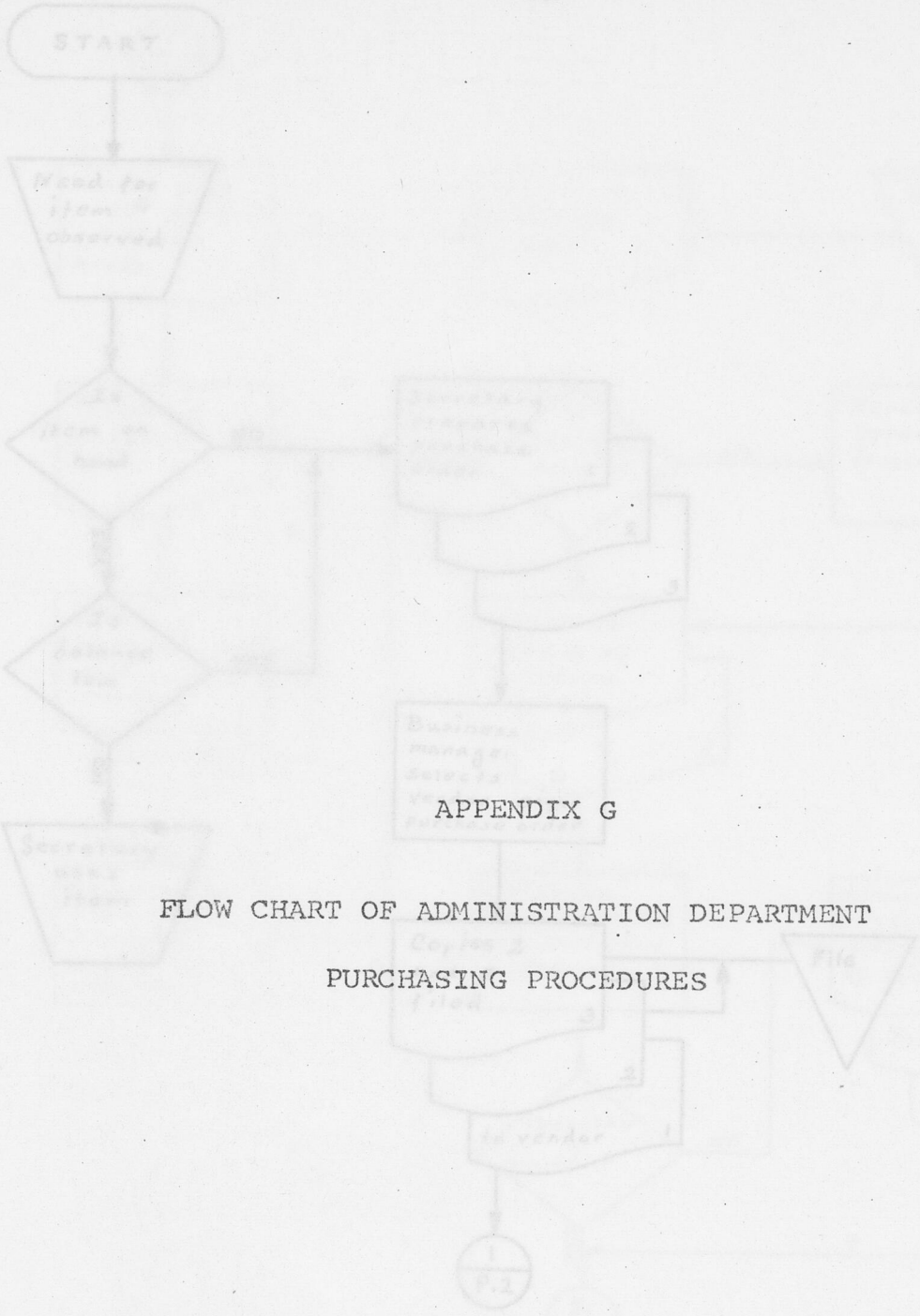

1
P.1
Vendor prepares invoice from sales slip
Sales slip
File
Invoice
To hospi-tal
To adminis-trator
Administrator approves invoice sends to PMS
3
P.3
2
P.1
Is delivery correct
NO
Initials invoice - sends to adminis-trator
Records error on the invoice and signs
Administrator approves invoice for payment sends to PMS
PMS receives invoice sends to accounting
Account-ing
3
P.3

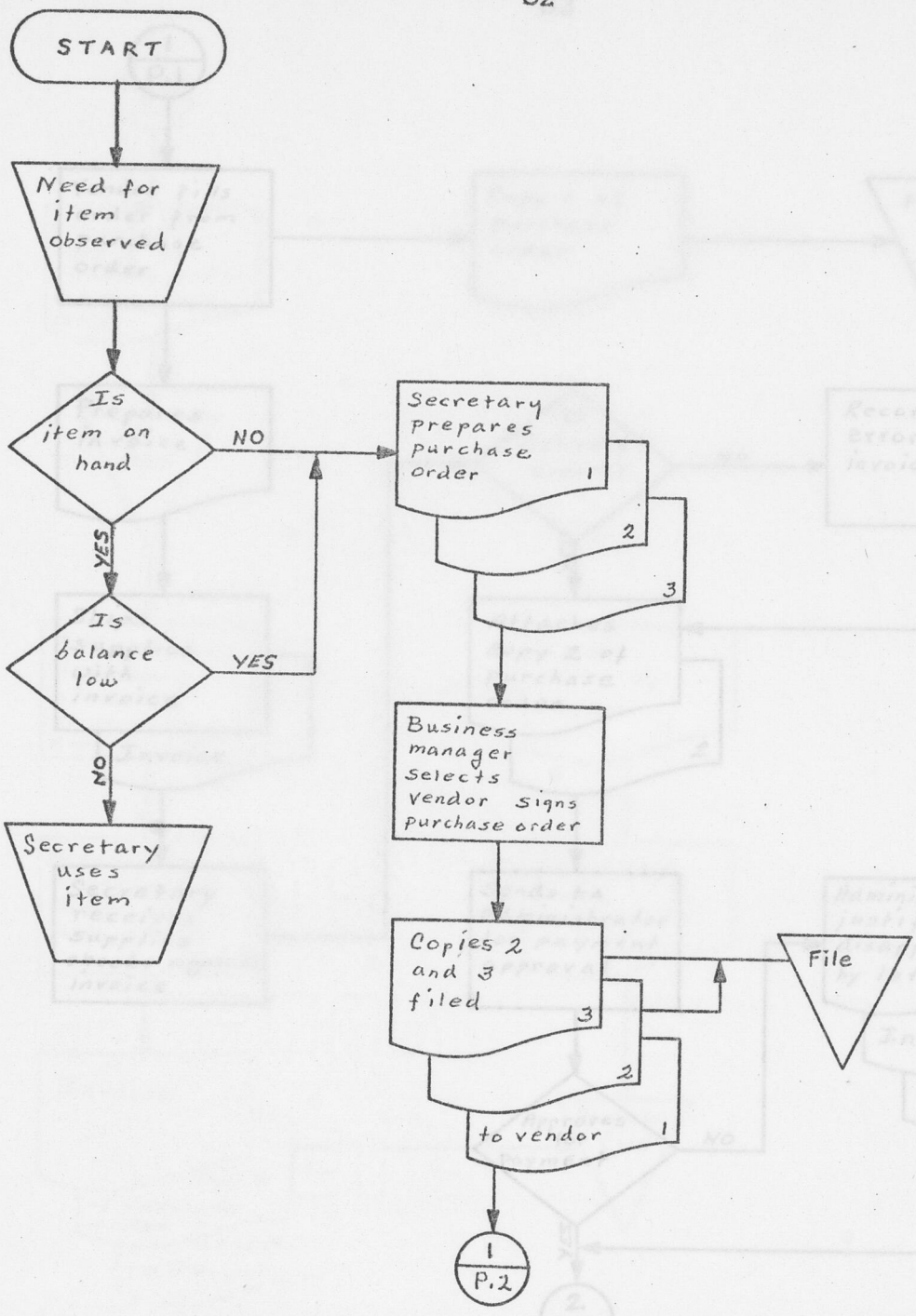

3
P.2
Accounting pays invoice
Sends check to vendor
Invoice
Cancelled check
File

APPENDIX G

FLOW CHART OF ADMINISTRATION DEPARTMENT

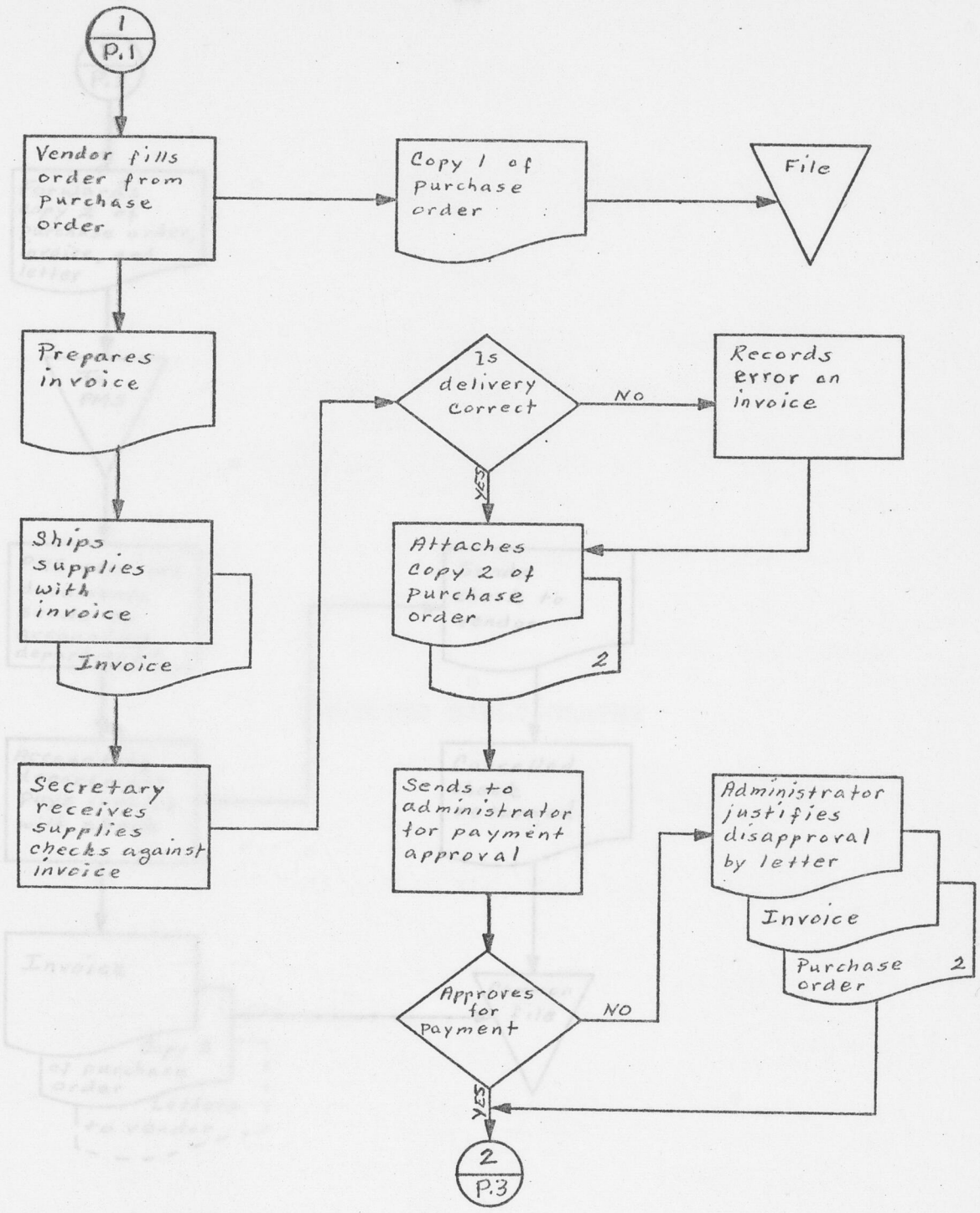
PURCHASING PROCEDURES

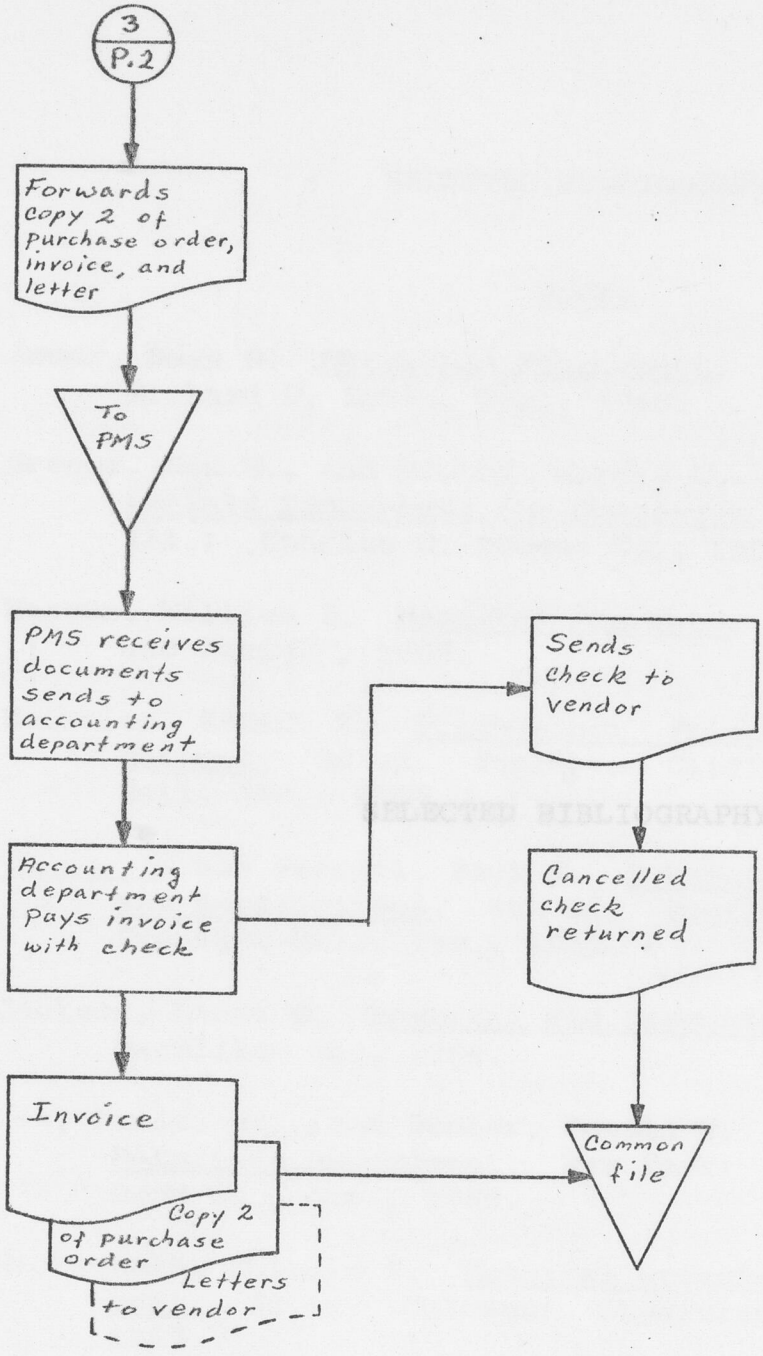




Note:

"1" indicates connecting point; "p" indicates "page number of a departmental system."


1
P.1
Vendor fills order from purchase order
Copy 1 of purchase order
File
Prepares invoice
Is delivery Correct
NO
Records error on invoice
YES
Ships supplies with invoice
Attaches copy 2 of purchase order
Invoice
2
Secretary receives supplies checks against invoice
Sends to administrator for payment approval
Administrator justifies disapproval by letter
Invoice
Purchase order
2
Approves for payment
NO
YES
2
P.3


3
P.2
Forwards copy 2 of purchase order, invoice, and letter
To PMS
PMS receives documents sends to accounting department
Accounting department pays invoice with check
Sends check to vendor
Cancelled check returned
Invoice
Copy 2 of purchase order
Letters to vendor
Common file

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ABSTRACT

A STUDY OF PURCHASING AT THE PRESBYTERIAN MEDICAL SERVICES OF THE SOUTHWEST, SANTA FE, NEW MEXICO

A Problem Solving Project Report Submitted to the Faculty of Baylor University in Partial Fulfillment of the Requirements for the Degree of Master of Hospital Administration

By Major Lewis M. Edwards, MSC

August, 1970 89 Pages

A copy of this document may be obtained on loan from the United States Army Medical Field Service School, Brooke Army Medical Center, Fort Sam Houston, Texas.

This study consisted of a review and analysis of the supply purchasing procedures employed by the Presbyterian Medical Services of the Southwest (PMS) at Santa Fe, New Mexico. The purpose of the study was to determine the best purchasing system for that organization and to make recommendations for improvement where they were indicated.

An in-depth review and analysis of the purchasing system at the Embudo Presbyterian Hospital was made with the intent of equating the findings to the other hospitals and clinics of the PMS. Based upon this analysis and from supportive material obtained through a research of the literature, recommendations were made to establish a centralized purchasing system at the main office of the PMS. Also recommended was the employment of a purchasing agent to function as an assistant administrator in charge of materials management.