1962


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MODISSETTE, James P., 1931–
AN EVALUATION OF CURRENT ACCOUNTING PRACTICES IN THE PRIVATELY OWNED ELECTRIC POWER AND LIGHT INDUSTRY,

Louisiana State University, Ph.D., 1962
Economics, commerce–business

University Microfilms, Inc., Ann Arbor, Michigan
AN EVALUATION OF CURRENT ACCOUNTING PRACTICES IN THE
PRIVATELY OWNED ELECTRIC POWER AND LIGHT INDUSTRY

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Accounting

by

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ACKNOWLEDGMENT

The writer wishes to express appreciation to Dr. Robert H. Van Voorhis, Professor and Head of the Department of Accounting, Louisiana State University, for his valuable assistance and guidance in the preparation of this dissertation.

The writer wishes to acknowledge, also, the helpful suggestions made by Dr. Fritz McCameron, Associate Professor of Accounting, Dr. Lloyd F. Morrison, Professor of Accounting, Dr. Stanley W. Preston, Professor of Finance, Dr. Karl D. Reyer, Professor of Management and Marketing, and Dr. William D. Ross, Dean of the College of Business Administration, for improving the original manuscript.
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1. Balance Sheet Accounts
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ABSTRACT

The electric power and light industry, which is commonly referred to as a public utility or a regulated industry, has experienced a phenomenal growth since its inception in the United States in 1882. Today, because of notable advances in the technology of electric power generation and transmission, this complex industry is characterized by large companies with vast holdings which engage in interstate as well as intrastate business.

The scale of operations of privately owned electric power and light companies requires large amounts of both debt and equity capital; thus, the need for fair and informative reporting to the general public of the financial position and progress of the individual companies is apparent. In this study, an evaluation of current accounting practices of electric power and light companies was made in order to determine to what extent the accounting profession has responded in reporting fairly the results of the financial activities of these business enterprises to the general public. The results of the study should be of interest to the public accounting profession, regulatory commissions, and other regulated industries.

Governmental regulation of electric power and light companies dates from the beginning of the industry. The necessity of the service and the possibility of exploitive pricing are usually cited as justification for regulation of the electrical industry. At first an attempt
was made to regulate the operations of the companies on a local level by means of provisions in a franchise for a designated market area. As the operations of the firms expanded, the task of regulation was assumed by the states which established independent regulatory commissions. In 1920, the Federal Power Commission was established which regulates hydroelectric projects and interstate commerce in electric power.

The scope of regulation has been broadened until nearly all aspects of the operations of electrical firms are covered; however, most of the regulatory action is directed toward the prescription of reasonable earnings and prices. As an aid in accomplishing this objective, regulatory commissions have adopted uniform systems of accounts to be used by the firms of the industry. For this reason, accounting for an electric power and light company is frequently referred to as regulatory accounting.

The approach to the problem of this study was to compare regulatory accounting with accounting practices of a non-regulated enterprise. Regulatory commissions have in their uniform systems of accounts set forth many procedures which are in marked contrast with generally accepted principles of accounting. The prescription of original cost, which requires electrical firms to record utility plant items at the cost of the first person devoting the property to the public service, serves as a good example.

The study also considered the weaknesses of prescribed accounting, the diversity of prescribed procedures among the various regulatory jurisdictions, and the limitations of accounting data in the role of rate regulation. The utilitarian nature of accounting was emphasized throughout the study, but financial reporting to the general public occupied the focal point.
Both primary and secondary sources were used in the research. Correspondence with executives of utility firms and correspondence and personal interviews with public accountants contributed greatly to the study. The publications of the Federal Power Commission, decisions of courts and commissions, and annual reports of utility firms were carefully analyzed.

The conclusion was reached that present-day accounting for electrical utilities is not responsive to the needs of the general public. Accounting practices and standards in the regulated industries should not be established by commissions, but should develop in the same manner that generally accepted accounting principles evolve in the non-regulated industries.
CHAPTER I
INTRODUCTION

The year 1882 marked the advent of what was to become one of the business giants in the United States—the electric power and light industry. Although important electrical discoveries had been made over a period of 80 years prior to this date, the invention of the high-resistance, incandescent lamp by Thomas Edison on October 21, 1879, resulted in the eventual birth of this industry.\(^1\) The completion of the first Edison central station in New York in 1882 was followed by numerous other advances in electrical lighting and the use of electricity for power.

The growth of the electrical industry from every point of view—production, sales, plant investment, etc.—has been phenomenal. Recent statistics reveal the importance of the industry in the economy of the United States. In 1959, the Nation's 3,459 electric utility generating plants produced a total of 709.7 billion kilowatt-hours, a record for the thirteenth consecutive year.\(^2\) The aggregate revenue of 269 of the largest privately owned electric utilities, which comprise 90% of this segment of the industry, amounted to $9,498 million for electric service rendered during 1959. The total investment of the same companies in utility plant

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at the end of 1959 was $42,322 million.\textsuperscript{3} In addition, 270 of the largest non-Federal publicly owned electric utilities, comprising 70% of this segment of the industry, received revenues totaling $696 million for electric service rendered during 1959, and at the end of the year, the utility plant investment amounted to $3,182 million.\textsuperscript{4} Taken together, the private and public sector of the electric power and light industry received revenues in 1959 in excess of $10 billion. The investment in electric plant in the same year exceeded $45 billion.

In the vast field of public utility enterprises, those concerns "affected with a public interest," the electric power and light industry has come to assume the place of first importance.\textsuperscript{5} This industry, however, is followed closely by the natural gas and telephone companies.\textsuperscript{6}

The growth of the electric power and light industry is impressive not only when measured in terms of revenues, plant investments, or other units of size, but also when regarded in light of the increasing influence upon domestic and industrial life. With its many ramifications, the electric power and light industry reaches every part of the national economic life.

The rapid growth of the electric industry has brought about scores of complex problems for the accounting profession. These problems

\begin{itemize}
\item\textsuperscript{3}\textit{Ibid.}, p. 30.
\item\textsuperscript{6}\textit{Ibid.}, p. a3.
\end{itemize}
have been compounded due to the special function which the accountant seeks to perform for an industry of this nature. This function must be explained.

In the case of American business in general, the economic law of supply and demand will act as an invisible hand to regulate the economy. The demand for a commodity will bring forth the capacity to produce the commodity in such quantities as necessary to fulfill the demand. On the other hand, the consumer is able to exercise his influence over the price by choosing from among alternative sources of supply. Thus, competition will act as a regulator. With a public utility type of enterprise, the duplication of productive physical facilities is considered to be economically unsound. For example, in the electric power and light industry, a large capital investment is required to build a generating plant or to establish a distribution system. If duplicate facilities were completed by rival companies, the consumer, in effect, would pay for such "economic waste" through higher prices for electric service. In addition, there is not enough room in the streets or alleys or underground for competitors in the electrical industry to offer alternative choices of action to consumers.

Such conditions have resulted in the granting of monopolistic privileges by governmental units to electric power and light firms and other public utilities. There arises the need for another regulator once a monopoly has been granted and the economic law of supply and demand cannot perform this function. Governmental units have sought to regulate the earnings of public utilities by establishing regulatory commissions or other agencies.

The commissioners have naturally looked to the accountant and to the data contained in the financial statements to assist them in
prescribing rates which will be equitable both to the public and to the utility. This is the special function which accounting seeks to perform for regulated companies that is not present elsewhere.

How well has the accounting profession responded to this challenge? How and why does accounting for a non-regulated and a regulated industry differ in certain respects? What are the major weaknesses of current accounting practices with reference to public utilities? What suggestions can be advanced which could possibly lead to an improvement of accounting methodology for a public utility? The answers to these and other questions confronting the professions of accounting have been sought in this study of accounting for one of the regulated utilities—the electric power and light industry.

Actually, the objectives of this study have been twofold:

1. To strive to make a contribution to the literature in the area of regulatory accounting.

2. To learn more about a major and complex segment of the economy of the United States.

In a study of this nature, it became necessary to consider the literature pertaining to public utilities in general. Some of the most important legal precedents have been established in regard to either railroads or gas utilities. Such precedents have equal applicability in the electric power and light industry.

This study has been primarily an evaluation of current accounting practices in the privately owned sector of the electric power and light industry. Publicly owned utilities, or those owned by federal, state, or local governmental bodies, have been excluded for several reasons. First, publicly owned power and light utilities were eliminated in order to reduce the scope of the research project. Second, as
indicated by the statistics on pages 1 and 2, privately owned electrical utilities account for almost 95% of the total revenue and plant investment of the industry. Third, there is a larger incentive for profit in the private sector. The rate of return for privately owned power and light companies must be sufficient to attract both equity and debt capital.

In order to consider problems of accounting relating to utilities adequately, a knowledge of the economic and social environment in which the industry operates is desirable. The economic characteristics of electric power and light are reviewed briefly in Chapter II. Chapter III contains a digest of local, state, and federal regulation as it has evolved to the present time.

The evaluation of accounting practices of electric utilities is the subject matter of Chapters IV through VI. Consideration is given in Chapter IV to the uniform system of accounts prescribed for electrical utilities. This is not an account-by-account discussion of prescribed accounting, but rather a critical evaluation of the uniform system in comparison with prevailing accounting practices for non-regulated enterprises, or with "generally accepted principles of accounting." Also, the advantages and disadvantages of prescribed accounting for regulated enterprises are set forth.

As plant investment is such an item of interest for utilities, Chapter V considers those problems of accounting relating to the acquisition of electric plant, or capital expenditures, and the subsequent writeoff by means of depreciation charges against revenue. This is an important part of this study as the investment in plant forms the largest part of the base to be used by regulatory authorities in computing the rate which the utility will charge the consumer for services rendered.
Attention is given in Chapter VI to those special problems of utilities in the measurement of periodic net income. Again, this topic is considered in contrast with prevailing accounting practices for non-regulated firms.

It should be pointed out that the subject matter of Chapters IV, V, and VI is interrelated, and it has been difficult at times to consider one topic without bringing in another. However, throughout each of these chapters all of the material is brought together in a discussion of the crux of the problem—the use of accounting data in computing the rate of return. Property valuations, net income, appraisals, supplementary information, idiocracies of commissioners, composition of the court—all are involved in the determination of the rate of return.

The concluding chapter summarizes the present accounting practices with respect to the electric power and light industry. Suggestions are made for corrective action which, in the opinion of the writer, could lead to an improvement of accounting methodology for electric power and light firms and public utilities in general.

Both primary and secondary data have been used in this research project. As mentioned previously, the literature pertaining to public utilities in general was examined. Most of the standard texts in this area were written by economists, and many were written in the 1930's, a period of great concern over governmental regulation of business. Much of the material was "muddied" by legal decisions. The various pronouncements of the Federal Power Commission were included in the research.

The primary data were collected by personal letters to executives of electric utilities, public accountants, and trade associations. Thirty executives were contacted; 25, or 83%, responded. A large number of the
replies contained very useful information. In a few cases, the executives were reluctant to express their opinions. Due to the specialized nature of the research project, a smaller group of public accountants were solicited for assistance. Also, very practical suggestions were obtained from this source. The identity of those contacted will not be revealed due to several requests that neither their name nor the name of their company be mentioned in this paper. However, many of the ideas contained herein were obtained from executives or public accountants. The support and encouragement received during the course of the primary research was gratifying.
CHAPTER II

ECONOMIC CHARACTERISTICS

The concept of public utilities is legal in its origin; however, the industries which are classified as public utilities possess certain common economic characteristics. The industries which are usually included in economic discussions of public utilities are the electric, gas, water, telephone, and transportation industries. As the business transactions of a business entity by nature are of an economic character, the accountant should be aware of the basic characteristics of the industry of which he is associated. Many of the specialized procedures and functions of public utility accounting are due to the inherent characteristics of the various enterprises. The purpose of this chapter is to present briefly those common economic characteristics of public utilities, particularly those of the electric power and light industry. Consideration of the legal concept of public utilities, as developed by legislators and the courts, will be deferred until the following chapter.

Most of the writers in the field of public utilities enumerate the more common economic characteristics of public utilities.1 Some of these characteristics can be attributed to the technology or to the

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social obligations of the industries whereas others are a result of the
capitalistic economic system of the United States. In several instances,
the utilities have elements in common with the non-utilities. The neces-
sity of supplementing the economic law of supply and demand as a regulator
of prices with governmental regulation will be more apparent after atten-
tion is directed to the distinctive features of public utilities. The
following discussion in certain respects will be general, but it affords
at least a partial insight of the economics of electrical utilities.

Cost Conditions

Perhaps the most outstanding cost characteristic of public utili-
ties is the large fixed investment. This feature is especially true of
the electric power and light industry. In 1959, the investment in elec-
tric plant per dollar of annual revenue amounted to $4.21.\(^2\) The net
investment in electric plant items accounted for 89.7% of the total assets
in the same year.\(^3\) The ratio is typically about 65% for manufacturing
enterprises and less than 50% for mercantile establishments.\(^4\) Maintenance
and depreciation charges in the electric power and light industry in 1959
were 16.4% of operating revenue.\(^5\) These statistics reveal the importance
of capital assets as a major item of costs for electrical firms.

\(^2\)Federal Power Commission, \textit{Statistics of Electric Utilities in
the United States, 1959, Privately Owned} (Washington, D.C.: U.S. Govern-

\(^3\)Ibid., p. viii.

\(^4\)Foster and Rodey, \textit{op. cit.}, p. 3.

\(^5\)Federal Power Commission, \textit{Statistics of Electric Utilities in
the United States, 1959, Privately Owned}, p. xxi.
The large outlay by electrical utilities for capital assets is due to several reasons. First, the nature of the operations of electric power and light companies generally require large-scale enterprises. The firm will usually generate, transmit, and distribute electrical energy to industrial and domestic consumers. Electrical energy can be generated by either steam or water, but both types of generation require large sums of capital for the necessary physical facilities. Transmission and distribution systems also require substantial capital outlays.

Another reason for large expenditures for plant investment is the fact that the electrical firms have a public obligation to serve all consumers who are willing to buy at existing prices. Considering the fact that consumers have peak periods of demand and that electrical energy cannot be stored, it is evident that the companies commonly have unused plant capacity. The growing company must actually enlarge plant capacity ahead of demand increases.

Authorities generally agree that utility services are produced under decreasing cost conditions. This characteristic holds true in the long run as well as the short run. In the short run, with an assumed plant capacity and a stated amount of fixed charges, the average cost per unit of output will decrease as output is increased. The fixed charges or overhead will be spread over the increased output, and the average cost will decline. Over the long run, a period of time long enough to vary plant capacity, a condition of decreasing costs exists up to the optimum level of output. This condition contributes toward large-scale enterprises.

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6 Troxel, op. cit., p. 34.
The condition of joint costs exists in the utilities as in other phases of economic life. However, joint costs are especially important in the utilities where a high degree of integration exists. As previously stated, many firms generate, transmit, and distribute their services. Also, many firms provide two or more services; for example, the gas and electric companies. The accountant resorts to apportioning joint costs over the available units of service. Judgment is involved in making the allocation, and the regulatory authority may question the basis of allocation.

**Competitive Conditions**

Most utility companies operate under exclusive franchise grants by governmental bodies. These franchises result in the utilities having monopolistic control over a designated market area. The monopolistic power of the utilities over rates and standards of service is curbed by controls in the franchise contracts, regulatory statutes, and orders of the regulatory commissions.\(^7\)

Public authorities at one time thought competitive conditions could be relied upon to protect the interest of the consumers. When utility companies were new, rivalry of companies was fairly common.\(^8\) But experience soon demonstrated that consumers and investors were not protected by the type of competition which prevailed. The consumers paid the cost of duplication of physical facilities through higher costs of service; and, in many cases, the companies did not offer adequate standards of service to the consumers. The rival companies either agreed on

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\(^7\)Barnes, *op. cit.*, p. 42.

\(^8\)Ibid., p. 27.
basic policies, or engaged in rate wars or other tactics until the weaker companies were eliminated. Cutthroat or destructive competition prevailed. Mergers and consolidations were common. Holding companies were used to acquire dominance in a market.

Technical factors also led to the dominance of a market area by one company. Technical advances with the resulting decreasing costs and the economies of large-scale enterprises outmoded the small utility company.

Gradually, public authorities realized competition could not be relied upon to control rates and standards of service. The term "natural" monopoly was coined to classify utilities. However, some of the non-utilities possessed many of the same characteristics as the utilities. As Troxel neatly puts it:

...the notion of a natural monopoly was invented to justify exclusive markets for utility companies after their ineffectual and sometimes wasteful rivalry proved unsatisfactory to both the investor and the consumer interests.

After granting monopolistic privileges in the form of franchises to the public utilities, the governmental bodies were obligated to curb the economic power of the utilities by regulation. Otherwise, the utility, being a monopolist, might seek to maximize net income by restricting output and charging prices clearly in excess of costs of production. Such action would not be in the public interest as utility services are essential to the welfare of the individual and of the community.

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9 Ibid., p. 27.
10 Ibid., p. 27.
11 Barnes, op. cit., p. 43.
By the process of regulation, the interest of both the investors and consumers are protected. The rates charged by the utility must be equitable on the part of the consumer; but, at the same time, the utility is assured a return on its investment. The return on the investment of utilities has been a major item of controversy in public utility regulation, and the economic effects of an assured "fair" rate of return are of importance. In the first place, the utility may be relatively indifferent to opportunities to become more efficient.\textsuperscript{12} A reduction in costs would only result in a reduction in prices. The utility may delay introducing technological innovations as would be necessary under competitive conditions. On the other hand, many marginal areas are being served today that would not have received the benefits of service under competitive conditions.

Monopolization in the utilities is not absolute. Although a company is granted an exclusive franchise for a geographic area, this prevents competition only of a like service. There is a considerable amount of intra-industry competition.\textsuperscript{13}

Intra-industry competition is especially true in the field of transportation; but, to a lesser extent, the electric power and light companies compete with the gas companies. In addition, large industrial consumers may elect to generate their own electrical energy. Managements of the various utilities have attempted to counter these possibilities by engaging in promotional rates or discriminatory pricing.\textsuperscript{14} Customers are

\textsuperscript{12} Ibid., p. 43.

\textsuperscript{13} Burton N. Behling, \textit{Competition and Monopoly in Public Utility Industries} (Urbana, Illinois: University of Illinois, 1938), XXV, 166.

\textsuperscript{14} Ibid., p. 169.
divided into classes according to their elasticities of demand which
depend in part upon available substitutes and the feasibility of making
a substitution. Small domestic buyers have an inelastic demand for most
utility services that they consume.\(^{15}\) The demand becomes more elastic
for other consumers. Consequently, domestic buyers would pay a higher
rate for services than other consumers. According to Behling, "The dis-
parity between the rates paid by domestic customers, small power users,
municipalities for street lighting, and large industrial power customers
indicates that rates are determined on the basis of the practicability
of substitution."\(^{16}\) In some cases, rates have been set according to
what the traffic will bear as contrasted with the cost of providing the
service.\(^{17}\)

The market relationship can probably be best expressed in terms
of monopolistic competition due to the existence of both monopolistic and
competitive features.\(^{18}\) This statement does not mean that regulation of
the utilities should be relaxed, but that the regulatory job is actually
more complex. Attention must be devoted to rates and rate schedules in
order that all consumers may be treated as fairly as possible.

**Capitalization**

Generally, public utilities are more heavily capitalized than
other forms of business enterprises. The necessity of substantial

\(^{15}\) Troxel, *op. cit.*, p. 43.

\(^{16}\) Behling, *op. cit.*, p. 170.

\(^{17}\) Ibid., p. 175.

\(^{18}\) Ibid., p. 167.
expenditures for fixed assets and the tendency toward large-scale enterprises compels public utilities to resort to all classes of investors. Bonded indebtedness is used more heavily in utilities than other lines of business activity. For the electric power and light industry in 1959, long-term debt represented 52.7% of total capitalization and surplus; common stock, 26.5%; preferred stock, 10.9%; and surplus, 9.9%. In the same year, the ratio of long-term debt to gross utility plant was 42.3%, and the ratio to net utility plant was 52.4%.\(^1\) The average rate of interest paid was 3.5%; the total interest payments amounted to $667.5 million, or 6% of revenue.\(^2\) These percentages were relatively constant over the ten preceding years.

The ability of the electric power and light companies and other utilities to assume the large fixed charges of bonded debt and privileged stocks is due to the stability of earnings, an effect of regulation. Although the operating revenue of the electric power and light industry climbed from $5.1 billion in 1949 to an excess of $11.1 billion in 1959, the net income as a per cent of operating revenue ranged from only 13.4 to 14.9% over the eleven-year period. The average percentage for this period was 14.6% with six out of the eleven years having an identical percentage of 14.9. Likewise, with an increase in net utility plant investment from $15.6 billion in 1949 to $37.9 in 1959, the utility operating income as a per cent of average net utility plant investment ranged from only 5.6 to 6.2% with four out of the eleven years having a return of 5.7%.\(^3\)

\(^2\)Ibid., p. xii.
\(^3\)Ibid., pp. ix and xiii.
Such stability reveals that the electric power and light industry is not sensitive to the phases of the business cycle as most lines of business endeavor. The attitude of the management of electric firms in regard to the stability of earnings is reflected in a statement made by the president of one company which is quoted as follows: "When and if it becomes necessary to ask for a rate relief to maintain a reasonable return, we will not hesitate to file the necessary application."

In comparison with the non-utilities, an average percentage of net income to operating revenue of 14.6 realized by the electrical industry during the 1949-59 period would appear to be excessive. Consideration must, however, be given to the annual turnover of capital. About five to six years are required for a utility to earn revenue equal to its capital whereas a trading concern's annual revenue may be four to five times its invested capital.22

With a low annual turnover of capital, a large proportion of the revenue dollar must be available for disbursement as a return on the invested capital. The preferred stockholders of the electric power and light companies received nearly 2% of the operating revenue over the 1949-1959 period while the common stockholders received approximately 9% of the operating revenue. The electric firms usually distribute about 70% of the net income in the form of dividends.23 This fact explains the common practice of electric utilities resorting to the sale of additional securities to finance new construction rather than by the use of accumulated earnings.24

22Barnes, op. cit., p. 53.
24Barnes, op. cit., p. 56.
The cost of capital is a major item of expenditures in the operation of an electric power and light company. According to the percentages cited, seventeen cents out of every dollar of revenue realized by the electric companies over the past eleven years have gone to the bond or stockholders. Financial practices, such as total capitalization, choice of securities, and dividend distributions, will affect the cost of present and future capital needs. The cost of capital will, in turn, affect the prescribed return of the utility and the cost of service to the consumer.

The influence of the cost of capital upon the cost of service to the consumer has justified the extension of regulation to the financing of utilities. The Securities and Exchange Commission regulates the financing of utility companies as well as companies in other industries for the protection of investors; however, the interest of the consumers of public utilities is protected by the regulation of financing by the public utility regulatory commissions. Regulation of financing is essential if the public is to be assured the utility is obtaining capital funds at the lowest possible costs, and following sound financial management in other respects.

The Regulatory Task

An awareness of the economic characteristics of public utilities discloses the need for public regulation of the economic power possessed by the companies. Certainly, the utilities have elements in common with the non-utilities. For example, manufacturing firms usually require large fixed investments and operate under conditions of decreasing costs. Pure competition is not the typical market environment, but most commodities or services are sold under conditions of monopolistic competition. However, the relationship of the utilities with the consumers, notably the small domestic or industrial buyers, is unique.
In the electric power and light industry, the small domestic or industrial buyers are directly dependent upon a particular company for electrical service. These consumers cannot afford to generate their own electrical energy; neither can they make a practical substitution. Regulation of public utilities does not rest solely upon the necessity of the service for the welfare of the consumer and of the community, but also upon the direct relationship of dependence of the consumers upon a particular source of supply. This dependence places consumers in a position of possible exploitation by private managers through exorbitant charges, discriminatory pricing, and inadequate standards of service. Regulation seeks to prevent tactics of this sort.

The final authority as to the industries that shall be included in the public utility category rests with the legislators and the courts, the Supreme Court being the final legal authority. The Court considers all of the relevant facts, including economic and social conditions, and then exercises its judgment. In short, the status of a public utility is imposed upon an industry when the management of the companies cannot be trusted with the distribution and pricing of commodities or services.

Once the status of a public utility is imposed upon an industry by a legislature and upheld by the Court, the activities of the companies are subjected to public regulation. The process of regulation has been one of evolution—more and more of the activities of the various public utility firms have been encompassed by regulations on the local, state, and federal levels of government.

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25 Troxel, op. cit., p. 47.
26 Ibid., p. 48.
CHAPTER III
LOCAL, STATE, AND FEDERAL REGULATION

The first pronouncement by the Supreme Court on the concept of a public utility was in the Munn v. Illinois decision in 1877. The question in this case was whether the state of Illinois had the power to regulate the charges for grain stored in warehouses. Pursuant to grain elevators being designated public warehouses by the Illinois Constitution of 1870, the legislature adopted a statute prescribing the maximum rate to be charged by grain elevators. The owners of the grain elevators contended the provisions of the statute amounted to the taking of private property without due process of law as provided for in the Fourteenth Amendment to the Constitution of the United States. The State maintained the statute was an exercise of its police power in providing for the general welfare of the people of the State. Among the factors considered by the Court were the pricing practices and the economic position of the grain elevators in relation to the farmers and the villages. Establishing a precedent, the majority opinion of the Court held the grain elevators were "affected with a public interest," and hence, subject to public control. Thus, the proposition was established that a state, under its police power, has the right to regulate any business in which the public has an essential interest.

1Munn v. Illinois, 94 U.S. 113 (1877).
The Munn v. Illinois case is usually cited as the beginning of public utility regulation in the United States; however, as early as 1784 the lawmakers of Massachusetts considered regulatory provisions in incorporating a bridge company. Municipalities and state governments had been seeking satisfactory solutions to the regulatory problems for almost a hundred years prior to the birth of the electric power and light industry. Nevertheless, the appearance of a new public utility on the scene of the American economy created additional regulatory duties for governmental bodies.

Historically, regulation of electric utilities as well as other utilities has largely been on an experimental basis. New problems have brought forth new control devices. Successful regulatory measures have been widely copied whereas unsuccessful ones have been discarded. The present regulatory process in the electric power and light industry is an outgrowth of attempts by local, state, and the federal governments to effect an adequate regulatory pattern. The historical development of regulation in the electrical industry will now be examined.

Local Regulation

Although state regulation of public utilities had been upheld by the Supreme Court in 1877, attempts at regulation of the electric power and light utilities prior to 1900 were made by local authorities. Before 1900 the electrical utilities were local enterprises, and supposedly local control would be more effective than state regulation. In

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2Dorau, op. cit., p. 283.

addition, due to the home-rule movement, the state legislatures delegated the control of franchises to local governments. A method for local control had been provided.

Regulation of the utilities was accomplished by means of provisions embodied in the franchise agreements. A franchise is a right to occupy a market, and also entitles the holder of the franchise to use streets or other public property necessary for the distribution of the utility service. The term of the franchise may be indefinite or for a certain number of years.

The regulatory provisions commonly found in the early franchise contracts concerned standards of service and rates. It was customary for the franchise to contain provisions fixing the maximum rates which the utility could charge during the term of the contract. If the franchise specified only that the rates should be reasonable, the public officials were forced to negotiate with the superior staffs of the utilities.

Municipalities rarely had reliable factual information concerning financial or accounting matters. Franchises did not provide for control of security issues, dividends, expenditures, or the system of accounting. The public officials were neither trained in the regulation of utilities, nor were adequate funds available for sound regulation.

The weaknesses of local regulation were apparent by 1900. Many of the utilities had ceased to be local concerns, but rendered service to several cities. The franchise proved to be too rigid to be used as

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4Troxel, op. cit., p. 50.

5Mosher, op. cit., p. 3.
a regulatory tool. Demand and cost conditions are subject to change, and the stipulated rate in the franchise could cease to be realistic to either the utility or the consumer before the franchise expired. Added to all of the inherent weaknesses of local regulation was the graft and corruption on the part of local officials in the granting of franchises.

The regulatory authority has almost completely passed from the local level to the state level. By 1959, only five states had failed to delegate regulatory powers over electrical utilities to state commissions. Local authorities in those states which have created regulatory commissions still have some element of control. In Louisiana, the City of New Orleans has sole jurisdiction over the electric utility servicing the city. Other municipalities possess the power to determine by municipal ordinance the quality and character of service, or to require a utility to make additions or extensions to its property. Municipalities also continue to grant franchises to utilities for the use of streets or other public property. However, in most states, the supervision of rates and charges is entrusted exclusively to commissions.

State Regulation

The inability of local authorities to act as an effective regulator of electric and other utilities caused the state legislatures to shift gradually the regulatory authority from municipalities to state commissions. Regulation on a state level was originally used about the

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6 Troxel, op. cit., pp. 52-53.

7 Porter, op. cit., p. 150. The five states are Iowa, Minnesota, Nebraska (All electric utilities are publicly owned.), South Dakota, and Texas.

8 Barnes, op. cit., p. 195.
middle of the nineteenth century in connection with the railroad industry; now the jurisdiction of state commissions was being extended to include the electric, gas, telephone, water, and local transportation industries. Although the state of Massachusetts delegated regulatory power over gas and electric utilities to a state commission in 1885, most state regulation of electrical utilities began after 1900.9

These commissions, known variously as railroad, public utility, or public service commissions, are usually independent of other branches of state government, subject only to judicial review of their decisions. Not wanting to involve regulation with partisan politics and unable to devise specific principles of regulation, the state legislatures created the independent commissions and delegated broad regulatory powers over specific utilities to the commissions.

Since the power of a commission is derived from the legislature, the commission has actually been called an "arm of the legislature."10 It is the function of these commissions to interpret and apply the delegated powers. In general, the changes made in the organization, powers, and duties of the state commissions since 1900 have operated to increase their authority and extend their jurisdiction.

The scope of commission regulation varies among the several states, but ordinarily regulation of electric utilities by the state commission begins with the inception of the utility organization. In a majority of states, the utility is required to obtain a certificate of

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9 Troxel, op. cit., p. 70.

10 Legislative Research Commission, Commonwealth of Kentucky, Public Utilities Regulatory Bodies (Frankfort, Kentucky: Legislative Research Commission, 1958), p. 35.
public convenience and necessity from the commission prior to the beginning of operations. As was true of the earlier municipal franchises, the purpose of a certificate of convenience and necessity is to prevent or limit competition. Upon being granted one of these certificates, a utility company is assigned a geographic service area.

Since the essence of regulation is control over rates, all of the commissions have been delegated authority over rates of electrical utilities. Limitation of rates involves the limitation of earning power and thus the problem of confiscation of private property arises. The courts have held that a utility is entitled to a "fair return" on a fair valuation of the property used and useful in rendering a public service. The fair return is calculated by multiplying a fair rate of return (a percentage) times the fair value of the property (the rate base). The fair value of the property has created much more of a legal controversy than the fair rate of return. Some states prescribe a specific rate of return, or specify a range such as from 5 to 8%, although the majority of the states leaves the determination of the rate of return to the discretion of the regulatory commissions.

The crux of effective rate control boils down to the theories and methods followed in determining the rate base. The short history of commission regulation in the United States has witnessed the development

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11 Moody's Investors Service maintains a current description of the special authority required in the various states prior to commencement of operations of a privately owned electric company. For a state-by-state description of the special authority required as of June 1, 1959, see the Moody's Public Utility Manual, 1960, p. 153. Unless otherwise indicated, the scope of commission authority as discussed in this paper is based upon the information collected and presented by Moody's Investors Service.

of various theories of property valuation. The fair-value doctrine as introduced by the famous Smyth v. Ames decision in 1898 was the constitutional guide until the Hope Natural Gas decision in 1944.\footnote{Federal Power Commission v. Hope Natural Gas Company, 320 U. S. 591 (1944).}

According to the fair-value doctrine, the Court held that consideration must be given to a number of factors including

\ldots the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stocks, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by statutes, and the sum required to meet operating expenses \ldots

The Court neither specified the weight to be given any of these factors, nor excluded other matters from consideration. However, in subsequent decisions, attention has usually been devoted to original cost or reproduction cost.

Following the Smyth v. Ames case, original cost was used to refer to the investment that a company had made in its property.\footnote{Notice that this concept of original cost denotes historical cost as the term is generally used by accountants. In regulatory accounting, however, historical cost refers to an estimated or imputed cost of property.}

A second meaning is now attached to original cost in utility regulation. In 1931, the Wisconsin Commission defined original cost as the cost of the property when first devoted to public service.\footnote{Foster and Rodey, op. cit., p. 293.} The objective of the Wisconsin Commission in adopting this concept of original cost was to reduce the inflated assets of utilities brought about by mergers and consolidations or plain arbitrary writeups. The second interpretation...
of original cost has been widely accepted by commissions and has greatly influenced public utility accounting. Consideration will be given to the accounting aspects of original cost in the following chapters.

Another theory of property valuation based on a cost standard is known as the prudent investment valuation. According to this method, the value of the property to be included in the rate base should be established by deducting the amount of the unwise or fraudulent investments in property items from the original cost (either cost to the first owner or the present owner of the utility property) of the property used and useful in rendering a public service.

The reproduction cost of utility property has usually been interpreted to refer to the cost of reproducing an identical or substantially identical plant under present conditions and with the use of modern methods. Resort has generally been made to engineering appraisals of the property, although index numbers have been used by some commissions.

One finds many differences in the valuation of property for rate purposes among the several states. In five states the commission considers the prudent investment standard; commissions in four states consider the reproduction cost; commissions in thirteen states consider the fair-value doctrine; and commissions in twenty-two states consider some interpretation of original cost. In many of the states, a combination of two or more methods or a variation of particular methods may be used by the commission. In seven states no particular one of these methods is prescribed; thus the method used may be discretionary with the commission.

16 Barnes, op. cit., p. 420.
The courts have repeatedly declined to establish more specific principles of property valuation for rate-making purposes. In 1913, in the Minnesota Rate Cases the Supreme Court said that the determination of property value "...is not a matter of formulas, but there must be a reasonable judgment, having its basis in a proper consideration of all relevant facts." In the same decision, the Court maintained that rate-making was a legislative function. The position of the Court under the fair-value doctrine was only to determine whether the rates established by a commission permitted the utility to earn a fair return on a fair value, whatever that meant. The utilities can appeal to the courts for relief upon receiving an unfavorable decision from a commission. The appeal of decisions to the courts increases the cost of commission regulation, and has caused commissions to be more moderate in handing down decisions.

A new era in public utility regulation is generally considered to have begun with the Hope Natural Gas decision in 1944. Apparently abandoning the fair-value doctrine, the Court announced a new doctrine of "end result." The fair return on fair value was replaced by a concept of "just and reasonable earnings." Again, the Court said commissions did not have to use any single formula or combination of formulas in determining rates, but could make pragmatic adjustments as were necessary. The impact of the rate order on the operations of the company became the important thing, not the technicalities of the

18 Troxel, op. cit., p. 217.
method of property valuation employed by the commission. The purpose of judicial review under the new ruling is only to determine whether the total effect of a rate order enables the utility to receive "just and reasonable earnings." The result of this decision was to increase the rate-making authority of commissions, and to reduce somewhat the fear of judicial reversal of their decisions.

Under the "end result" doctrine, the emphasis on the financial record of the enterprise centers on the liability side of the balance sheet. The Court, looking primarily at the financial history of a company, considers the market position, credit standing, financial obligations, and past dividends. The ability to attract the necessary debt and equity capital is paramount.

Although most state commissions still base rate decisions on some method of property valuation, the long legal controversy over property valuation for rate purposes has been considerably reduced by the impact of the Hope decision. Later decisions also reflect the importance of the financial integrity of the utility firm in the eyes of the members of the Supreme Court.20

Regulation of rates, however, would be meaningless without regulation of the standards of service. The right to establish service standards including the right to order extensions or the right to deny the abandonment of service has been entrusted to commissions.

The authority of state commissions extends to the supervision of the accounting practices of the utility company. Only by control over the accounting practices would the commissions have access to

20 Ibid., pp. 344-45.
reliable data concerning costs, revenues, and property values. All
commissions have prescribed the use of some type of uniform system of
accounts for electric utilities on a state-wide basis. Control of
accounting practices also commonly extends to control over the method
of computing depreciation; in many states the rate of depreciation is
prescribed.

Commissions require the utilities to submit periodic reports,
and in a majority of the states the commission has the statutory power
to call for special reports in connection with investigations. The
legislatures in only two states have denied the commission the authority
to regulate the issuance of new securities. The more aggressive state
commissions also control the leasing, merging, and consolidation of
utility properties.

The statutory power of state commissions may be briefly summa-
rized as follows: (1) control over rates, (2) maintenance of standards
of service, (3) supervision of financial policies, and (4) control
over accounting. Of course, the authority vested in the state commis-
sions varies considerably. Some states, for example, Massachusetts,
Wisconsin, and New York, have been leaders in the field of commission
regulation of utilities. Other states have acted, though slowly at
times, to adopt regulatory measures proved effective in use.

The commission form of regulation was an original development
of the United States. Many criticisms have been levied at the commis-
sion system of regulation, a major one being the functions of a commis-
sion are contrary to the system of government in this country. Since

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21 George A. Graham and Henry Reining, Jr., editors, Regulatory
commissions have the authority to conduct investigations, hold hearings, and render decisions, critics maintain commissions perform the functions of the executive, legislative, and judicial branches of government. This stricture is valid; however, the objections to the commission's acting as both prosecutor and judge in rate cases are partially offset by the principle of judicial review. The superiority of the combination of functions is undoubtedly supported by the failure of the various states to devise a better system of regulation.

Nevertheless, improvements need to be made in the composition and administrative procedures of regulatory commissions in many states. The weakness of commission regulation in certain states is due to the organizational deficiencies. Some of these deficiencies are unqualified commissioners, short tenure of office for commissioners, inadequate personnel, lack of funds, and partisan politics.

The administrative procedure of commissions has also been a subject of criticism. One of the major weaknesses of the less aggressive commissions is the lack of initiative in starting proceedings for a reduction of rates. Commissions of this type await action until complaints are received from customers or communities. If statutory power is available to initiate investigations, such action reflects on the sincerity of the commissioners as public servants.

Qualified commissioners, competent and adequate staff personnel, and adequate funds together with the required statutory power are necessary for sound regulation by commissions.

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22 Troxel, op. cit., p. 87.
State regulation of electric utilities was supplemented by regulation on a national level in the early decades of the twentieth century. Among the factors responsible for the federal government's becoming a regulator of electric utilities were the construction of hydroelectric power dams, the increasingly interstate character of the industry, undesirable practices of holding companies, and inadequate or nonexistent regulation in a number of states. With the coming of the New Dealism in 1933 and the liberalism thereafter, the role of the federal government has become extremely important in the realm of electric utility regulation.

Federal Regulation

The federal government originally became a regulator in the electric industry as a controller of the water resources of the United States. Congressional authority was necessary prior to 1920 before a company or municipality could build a hydroelectric power dam on a navigable stream. In 1920, the Federal Power Commission composed of the Secretaries of War, Interior, and Agriculture was established by Congress with supervisory power over the development of water-power resources.

Upon granting a license authorizing the construction of a hydroelectric dam, the commission requires the licensees to agree to abide by the regulatory measures of the state in which the dam is located. In the absence of adequate state regulation, the commission is authorized to regulate the rates, securities, and services of the licensee until state regulation is provided.23

Although the power remained essentially the same, an independent commission consisting of five full-time members was created in 1930. Sweeping changes, however, were made in the authority of the Federal Power Commission with the passage of the Public Utility Act of 1935. First, electric utilities operating in interstate commerce were placed under the jurisdiction of the Federal Power Commission. The commission was subsequently empowered to regulate the rates, earnings, financial transactions, and accounting practices of electric companies that operated in interstate commerce.\textsuperscript{24}

Again, federal regulation was extended only to those matters which were not subject to regulation by states. A serious gap had existed in the regulation of electric utilities since 1927 when the Supreme Court refused to permit the State of Rhode Island to regulate the price of electricity sent out of the state.\textsuperscript{25} The authority of the Federal Power Commission to fix reasonable and nondiscriminatory rates for the sale of electrical energy at wholesale in interstate commerce has closed this regulatory gap. The powers of the Federal Power Commission are similar in most respects to those of the more progressive state commissions, except that the commission has no authority to regulate the retail rates to consumers. However, regulation of wholesale rates in interstate commerce has an indirect effect on consumer prices.

The Public Utility Act of 1935 also placed the public utility holding companies under the jurisdiction of the Securities and Exchange Commission. Investigations in the 1920's by the Federal Trade Commission

\textsuperscript{24}Ibid., Part II, pp. 26-37.

revealed the abuses of holding companies; a major abuse of electric holding companies was to provide services in engineering, management, and the like to subsidiary companies, and to impose charges which were wholly unrelated to the value of the services rendered. State commissions even admitted federal regulation was necessary to correct the problem of holding companies. In order to exercise better control over the financial activities of the holding companies, the Securities and Exchange Commission is authorized to prescribe accounting practices and systems for companies under its jurisdiction. The broad authority of the Securities and Exchange Commission in the issuance of securities and in the operations of holding companies makes the commission an important regulator in the electrical industry.

Regulation of the electrical industry has been greatly enhanced by the federal commissions. The Federal Power Commission has proved to be an able regulator, and has been eager to assist the state commissions with their regulatory problems. Congress wants cooperation between the federal and state agencies, and even permits the Federal Power Commission to assemble information for state commissions, or to lend employees to them.

In addition to control over interstate movement of electrical energy, the Federal Power Commission has provided leadership on problems common to state and federal control of electric utilities. One of these problems has most certainly been the accounting methodology of electric utilities.

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27 Ibid., p. 111.
CHAPTER IV
THE UNIFORM SYSTEM OF ACCOUNTS

The utilitarian nature of accounting is universally recognized in the accounting profession. With respect to business enterprise in general, accounting information is used by management, creditors, customers, labor groups, and other parties interested in the financial condition or operations of a business entity. In the regulated industries, the use of accounting data as a tool for regulatory purposes has placed an additional burden on the profession of accounting. Information contained in the general-purpose financial statements prepared from the books of account of public utilities proved to be helpful to the regulatory commissioners in the discharge of their duties. Commissions soon realized, however, that in order to have access to reliable financial information covering the financial activities of a public utility, control had to be extended over the accounting system. Accounting control by commissions in the regulated industries has taken the form of prescribing systems of accounts and setting forth detailed instructions for recording transactions and preparing financial statements.

The purpose of this and the next two chapters is to examine the system of accounts prescribed for electric utilities with attention devoted primarily to the unique characteristics of prescribed accounting. As a basis for evaluation, prevailing accounting practices in the
electric utilities are compared with accounting practices of non-regulated industries. The objectives of this comparison are as follows: (1) to determine the differences between prescribed accounting and "generally accepted principles of accounting," and (2) to resolve whether these differences are warranted due to the special function of accounting in a regulated industry. Some of these variances are studied from a managerial viewpoint whereas others are considered from the position of a stockholder, creditor, labor union, or other user of the financial statements. But thought must first be given to the applicability of generally accepted accounting principles to regulated industries.

Generally Accepted Accounting Principles

One of the perplexing problems presently confronting the accounting profession is the meaning of the term "generally accepted accounting principles," the standard to which prescribed accounting is compared in this paper. Reference is made to generally accepted accounting principles throughout accounting literature, and the term is incorporated in the short-form report rendered by public accountants upon certifying financial statements. In addition to issuing opinions or recommendations covering specific accounting problems, the American Institute of Certified Public Accountants (AICPA) has formulated certain auditing standards to be used as guides by certified public accountants in the performance of an audit engagement.\(^1\) Among the standards of reporting is the requirement

\(^{1}\text{American Institute of Accountants, Codification of Statements on Auditing Procedure} \ (\text{New York: American Institute of Accountants, 1951}), \ p. \ 10. \ \text{Note: On June 1, 1957, the name of the American Institute of Accountants (AIA) was changed to the American Institute of Certified Public Accountants (AICPA). The American Institute of Certified Public Accountants will be designated as the AICPA henceforth in this paper.} \)
that the auditor's report must state that the financial statements are presented in accordance with generally accepted accounting principles. Also, Rule 5(e) of the AICPA's Rules of Professional Conduct provides that material departures from generally accepted principles of accounting be disclosed in the auditor's report. The regulations of the Securities and Exchange Commission contain similar requirements. Nevertheless, to date there has not been a clear and concise statement of these generally accepted accounting principles. The question has even been debated as to whether such a statement can be formulated. Currently the research activities of the AICPA are focused on the development of basic postulates or concepts underlying accounting. Once these postulates or concepts are established, it is anticipated that a statement of principles can then be developed. For purposes of this study, generally accepted principles of accounting can only be interpreted to mean sound accounting practices which have received widespread use in business. Due to their logic or usefulness, certain practices have not only been generally accepted, but also have received authoritative recognition by professional organizations. Such practices constitute what is referred to in the accounting profession as generally accepted principles of accounting.

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4 Special Committee on Research Program, "Report to Council of the Special Committee on Research Program," The Journal of Accountancy, CVI (December, 1958), 63.
The problem of generally accepted principles of accounting becomes especially troublesome in certain areas of accounting theory where alternative practices or methods have received widespread usage and have been proclaimed acceptable by the AICPA. The complexity of this problem can be illustrated by reference to the acceptable methods for the valuation of inventory or the depreciation of plant and equipment items. The selection of the accounting principles to be employed by a business entity has a significant effect upon the determination of the net income, and correspondingly, influences the total valuation of assets and equities. Although the AICPA has cautioned against undue reliance upon a single net income figure, it has become increasingly difficult for a reader of an accounting statement to form sound conclusions regarding the financial condition or operations of a business enterprise.

The question has arisen in accounting circles concerning the application of generally accepted accounting principles to the regulated industries. The late George O. May stated"... it is now (January, 1958) clearly established that the regulatory commissions are not bound by principles accepted outside the regulated area, nor are unregulated industries bound by those of the public service commissions." But Walter R. Staub is of the opinion that pronouncements of the AICPA cover regulated as well as non-regulated industries. Special consideration has been given to regulated industries in some of the opinions or


recommendations issued by the AICPA; however, unless otherwise indicated, apparently the pronouncements of the AICPA apply equally to regulated and non-regulated industries. Support for this position is found in a statement made in Bulletin 43 issued by the AICPA in 1953. In part, the statement reads "... opinions and recommendations are directed primarily to business enterprises organized for profit." Exceptions are made only in the case of non-profit institutions, municipalities, professional firms, and the like.

Suggestions have also been made that, in the case of regulated industries, the report accompanying certified financial statements should state that the financial statements are presented in accordance with "principles of accounting imposed by regulatory authority or otherwise accepted" rather than the standard phrase "generally accepted accounting principles." Accounting Series Release No. 7 of the Securities and Exchange Commission lists commonly cited deficiencies in financial statements filed under the Securities Act of 1933 and the Securities Exchange Act of 1934. One of these deficiencies clarifies the position of the

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Securities and Exchange Commission in regard to the application of generally accepted accounting principles to the regulated industries.

The deficiency is as follows:

Certifying that the accounting principles followed by the registrant are in accordance with the system of accounts prescribed by a State regulatory body, or in a particular industry, but without indicating whether the practice of the registrant is in accordance with generally accepted accounting principles and procedures.\footnote{Ibid., p. 8.}

The Committee on Auditing Procedure of the AICPA is presently considering the form of the auditor's report to be issued with respect to statements of regulated industries.

In attempting to formulate the basic postulates and principles of accounting, the research staff of the AICPA is seeking to narrow the areas of differences in accounting practices and thus achieve more uniformity among the accounting and reporting practices of the various companies. This goal has been the objective of the AICPA since the 1930's, but there is renewed hope due to a new philosophy of accounting research. The AICPA in the past has sought answers only to specific problems; now an Accounting Principles Board has been organized whose function is to determine the basic theory of accounting. With the increased emphasis on uniformity among industries, it was surprising to read an article by the Chairman of the new Accounting Principles Board which appeared in The Journal of Accountancy. The author, Mr. Weldon Powell, writes as follows:

The matter of alternatives . . . is especially pertinent in regulated industry--electric, gas, telephone, and water utilities, railroads, airlines, insurance companies, etc. Here the profession unquestionably should put forth a continuing effort
... looking toward the elimination, or at least the minimization, of important differences between the accounting practices required or permitted by regulatory authorities and those followed in industry generally. Meanwhile, in my view, the profession should recognize that many Federal, state, and local commissions have the authority and the duty to prescribe the accounting practices to be followed by the companies subject to their jurisdiction; that some important differences exist between accounting requirements prescribed by them and accounting principles otherwise generally accepted, and in fact, between the accounting requirements of the various commissions themselves, primarily because the accounting systems of the commissions are designed with a view to their use in rate making; and that nothing but confusion is likely to result if independent certified public accountants insist on reporting the financial statements of regulated companies in the light of accounting principles followed by other companies. Until we are able to effect considerably greater consistency in accounting principles generally, in my judgment, the profession should either avoid the use of the expression "generally accepted accounting principles" in opinions on regulated industry, or develop a form of opinion which will give this expression meaningful context.12

Although Mr. Powell appears to accept or possibly advocate dual standards of reporting for regulated and non-regulated industries, there are accountants who strongly urge the application of a single set of accounting principles to all industries. Commenting on the above quotation, Mr. Richard W. Walker, partner in charge of utilities in the Chicago office of Arthur Andersen & Co., a national public accounting firm, said, "I not only do not agree with this view, I think it is dead wrong."13 Mr. Walter R. Staub is also of the opinion public utilities should be subject to the accounting principles followed by industry


generally, and states the great majority of the companies do not wish to be considered "a special breed of cat."14 On the same subject, the controller, a certified public accountant, of a large electric utility had this to say:

"... it is my opinion that the accounting principles underlying financial statements of regulated public utilities are fundamentally the same as those underlying the financial statements of non-regulated enterprises. Also, that such accounting principles apply to regulated and non-regulated enterprises."

The same feeling was expressed by the majority of the executives contacted in this study.

Undoubtedly the preponderance of opinion among both public and private accountants interested in regulated industries favor the application, at least in theory, of generally accepted accounting principles to the regulated industries. From a utilitarian viewpoint, it would certainly be beneficial to investors if the same accounting principles were applied to all industries. Comparability of financial statements and other financial data among companies of various industries would be greatly improved. As public utilities and non-regulated industries must compete in the same money markets for necessary capital, the use of generally accepted accounting principles in the regulated industries would place the sale of securities of all businesses on the same footing.

In practice, however, there are major differences in the accounting principles followed by regulated industries and those followed by other industries. Financial statements of regulated industries have been certified by national accounting firms without disclosing material

14Staub, loc. cit.
departures from generally accepted accounting principles. Such practice
has been held not to be in violation of Rule 5(e) of the Rules of Pro-
fessional Conduct which requires disclosure of material departures from
generally accepted accounting principles.\textsuperscript{15} The justification for this
position by the AICPA rests on a strong presumption that prescribed
practices constitute generally accepted accounting principles in that
industry. Also, as the AICPA has not issued an opinion regarding the
auditor's report for regulated industries, the validity of reporting in
accordance with prescribed accounting must rest on general use and
acceptance. The Committee on Professional Ethics of the AICPA reports
the practice of reporting on financial statements in terms of prescribed
accounting principles appears to be widespread in the regulated industries.\textsuperscript{16}

The principal differences in prescribed accounting and generally
accepted accounting principles no doubt stem from the rate-making policies
of regulatory commissions. The prescribed systems of accounts as de-
signed by regulatory commissions are oriented towards the use of the
financial statements in rate-making. It is interesting to note that
many of the prescribed systems were first set forth in the latter part
of the nineteenth century and the early part of the twentieth century,
prior to the development of accounting thought in this country.

The contribution of the utilities in the evolution of accounting
theory has been most significant. Some of the legal milestones of the
accounting profession have concerned utility companies. In the famed

\textsuperscript{15} Arthur Andersen & Co., Accounting and Reporting Problems of
the Accounting Profession, p. 102.

\textsuperscript{16} Ibid., p. 103.
AICPA injunction case, three electric companies sought an injunction to prohibit the AICPA from rendering an opinion regarding the proper treatment of deferred income taxes. The development of accounting thought in regard to depreciation accounting received impetus from the accounting practices of utility companies. In certain respects, utility accounting is sounder theoretically than industrial accounting. A good example of this is the capitalization of interest during a period of construction, a common practice in the public utility field, but a practice objected to on theoretical grounds by many accountants. Perhaps furtherance of accounting principles would result from a complete unification of accounting principles of the various industries.

Development of Prescribed Accounting for Electric Utilities

The first attempt to achieve some degree of uniformity among the accounting systems of electric companies on a national level was made by the National Electric Light Association (NELA) in 1914. Several of the state commissions had prescribed diverse systems by this time.

17 For a complete documentation of the facts in this case, see Arthur Andersen & Co., The AICPA Injunction Case (Chicago: Arthur Andersen & Company, 1960).


time, and a company subject to the jurisdiction of more than one state
was forced to keep separate books for each state. The work of the NELA
was little more than a standard classification of accounts, being designed
for business and not regulatory purposes.\(^{21}\) Shortly thereafter, the
efforts of the NELA were strengthened by the assistance of the National
Association of Railroad and Utility Commissioners (NARUC). The result
of this union was the adoption of a uniform system of accounts in 1920
which incorporated many of the regulatory features recommended by the
commissioners.

The passage of the Federal Water Power Act in 1920 creating the
Federal Power Commission brought increased action to achieve uniformity.
However, from 1920 to 1936, there were basic disagreements between the
NARUC and the Federal Power Commission. The NARUC system left many
items to the discretion of management and favored the retirement re-
serve method of accounting for fixed assets.\(^{22}\) The Federal Power
Commission which at that time exercised control only over hydroelectric
projects adopted a more rigid system with depreciation accounting
mandatory. As the Federal Power Commission has the statutory power to
"recapture" licensed projects at the end of a fifty-year license period
by paying the net investment, it was necessary for the Federal Power
Commission's system to be specific in the determination of original
cost and the accrual of depreciation.\(^{23}\)

\(^{21}\) Ibid., p. 140.
\(^{22}\) Ibid., p. 138.
\(^{23}\) Ibid., p. 136.
The extension of the jurisdiction of the Federal Power Commission to interstate sales of electrical energy in 1935 increased the needs for uniformity. Cooperation between the Federal Power Commission and the NARUC together with a change in thinking of the NARUC concerning depreciation accounting enabled the two groups to adopt uniform systems substantially the same that became effective on January 1, 1937. The movement towards uniformity was rolling.

Although the uniform systems are modified when changes are desirable, the NARUC adopted a revised system in 1958 and was followed by the Federal Power Commission in 1960. Active consideration was given to the revised systems over a ten-year period by the Federal Power Commission, the NARUC, industry representatives, public accounting firms, and others. By 1959 the vast majority of the states had adopted the system of accounts of the Federal Power Commission or the NARUC; only nine states continued to use a slightly modified state system. These systems are practically identical in content and the variations of one system from another are usually not significant. Due to the extensive jurisdiction of the Federal Power Commission, the system of accounts of this commission which became effective on January 1, 1961, will be discussed in this paper.

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24 Ibid., p. 155.
26 When reference is made to a uniform system of accounts henceforth in this paper, the prescribed accounts of the Federal Power Commission is intended unless otherwise indicated.
The Uniform System of Accounts of the Federal Power Commission

The Federal Power Commission has divided electric utilities and licensees into four classes for the purpose of prescribing a uniform system of accounts. These classes are:

Class A. Utilities having annual electric operating revenues of $2,500,000 or more.

Class B. Utilities having annual electric operating revenues of $1,000,000 or more but less than $2,500,000.

Class C. Utilities having annual electric operating revenues of $150,000 or more but less than $1,000,000.

Class D. Utilities having annual electric operating revenues of $25,000 or more but less than $150,000.

The same system of accounts applies to Class A and B utilities which, as noted in the introduction to this paper, includes 99% of the companies in the privately owned sector of the electric power and light industry. A simpler system differing only in the amount of detail is available for the smaller companies. The classification of a company is determined by its average operating revenues for the past three years; however, any company may elect to adopt the uniform system prescribed for any larger class of utilities.

The uniform system of accounts prescribed for electric utilities consists of four elements:

---


28 Loc. cit.
1. Definitions
2. General Instructions
3. Balance Sheet Accounts
   A. Electric Plant Accounts
   B. Electric Plant Instructions
4. Income Accounts
   A. Operating Revenue Accounts
   B. Operation and Maintenance Expense Accounts
   C. Operating Expense Instructions

Definitions: A list of thirty-three definitions is included in the prescribed accounts for electric utilities. The purpose of these definitions is to reduce the possibility of confusion and misunderstanding between the commission and the utilities. Certain accounting terms have specialized meanings in utility accounting; for example, as applied to electric plant, original cost means "... the cost of such property to the person first devoting it to public service."\(^{29}\)

General Instructions: Information covering various topics is included in this section. The companies are advised to keep adequate records to support the entries in the books of account. Detailed instructions concerning transactions with associated companies and accounting requirements for multiple plants or departments are included. Finally, the companies are instructed to submit all doubtful items to the commission for interpretation.

Balance Sheet Accounts: This part of the prescribed system consists of a list of balance sheet accounts, a group of subaccounts for a detailed classification of electric plant in service, and specific instructions and descriptions for each account.

\(^{29}\text{Ibid., p. 2.}\)
The general form and sequence of the accounts for statement purposes is shown in Figure 1 on page 49. One of the more apparent differences between this sequence and the usual presentation of balance sheet accounts is the location of the utility plant and capital accounts. The utility plant accounts are shown first on the left side, and the capital accounts occupy the dominant position on the right side of the balance sheet in order to emphasize the importance of utility plant and the methods of financing plant acquisitions. Due to the significance of the working capital position in commercial and industrial enterprises, the current assets and current liabilities are considered of primary importance and commonly are placed in first position.

Each account in the uniform system is supported by a definition and description of the types of transactions to be recorded therein. The bases to be used in determining the amounts to be recorded in the various accounts constitute a part of the prescribed system. In general, the cost concept is observed throughout electric utility accounting except in the acquisition of an operating unit or system where regulatory concepts require the division of the cost among two or more accounts. This unique characteristic and other regulatory features of the prescribed system will be scrutinized in the following chapters.

The system of accounts which became effective on January 1, 1961, contains many improvements over the system which had been in effect since 1937. For example, under the old system reacquired stocks and bonds were shown on the left side of the balance sheet simply because such items fit the general title "Assets and Other Debits" of the left side of the balance sheet. Modern accounting thought supports the position that only rarely should reacquired or treasury securities be shown as an
FIGURE 1

BALANCE SHEET ACCOUNTS

<table>
<thead>
<tr>
<th>ASSETS AND OTHER DEBITS</th>
<th>LIABILITIES AND OTHER CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Utility Plant</td>
<td>5. Proprietary Capital</td>
</tr>
<tr>
<td>101 Electric plant</td>
<td>Common capital stock</td>
</tr>
<tr>
<td>102 Electric plant in service</td>
<td>201 Common stock issued.</td>
</tr>
<tr>
<td>103 Electric plant leased to others</td>
<td>202 Common stock subscribed.</td>
</tr>
<tr>
<td>104 Electric plant held for future use</td>
<td>203 Common stock liability for conversion.</td>
</tr>
<tr>
<td>105 Electric plant leased</td>
<td>204 Preferred stock issued.</td>
</tr>
<tr>
<td>106 Construction work in progress—Electric</td>
<td>205 Preferred stock subscribed.</td>
</tr>
<tr>
<td>107 Accumulated provision for depreciation</td>
<td>206 Preferred stock liability for conversion.</td>
</tr>
<tr>
<td>108 Accumulated provision for depreciation</td>
<td>207 Premium on capital stock.</td>
</tr>
<tr>
<td>109 Accumulated provision for depreciation of electric plant leased to others</td>
<td>208 Donations received from stockholders.</td>
</tr>
<tr>
<td>110 Accumulated provision for depreciation of electric plant held for future use</td>
<td>209 Reduction in par or stated value of capital stock.</td>
</tr>
<tr>
<td>111 Accumulated provision for amortization of electric plant in service</td>
<td>210 Gain on resale or cancellation of reacquired capital stock.</td>
</tr>
<tr>
<td>112 Accumulated provision for amortization of electric plant leased to others</td>
<td>211 Miscellaneous paid-in capital.</td>
</tr>
<tr>
<td>113 Accumulated provision for amortization of electric plant held for future use</td>
<td>212 Installments received on capital stock.</td>
</tr>
<tr>
<td>114 Electric plant acquisition adjustments</td>
<td>213 Discount on capital stock.</td>
</tr>
<tr>
<td>115 Accumulated provision for amortization of electric plant acquisition adjustments</td>
<td>214 Capital stock expense.</td>
</tr>
<tr>
<td>116 Other electric plant adjustments</td>
<td>215 Appropriated earned surplus.</td>
</tr>
<tr>
<td>117 Other utility plant</td>
<td>216 Unappropriated earned surplus.</td>
</tr>
<tr>
<td>118 Other electric plant adjustments</td>
<td>217 Reacquired capital stock.</td>
</tr>
<tr>
<td>119 Accumulated provision for depreciation and amortization of other utility plant</td>
<td>218 6. Long-Term Debt</td>
</tr>
<tr>
<td>2. Other Property and Investments</td>
<td>Bonds.</td>
</tr>
<tr>
<td>120 Nonutility property</td>
<td>221 Bonds.</td>
</tr>
<tr>
<td>121 Accumulated provision for depreciation and amortization of nonutility property</td>
<td>222 Rescinded bonds.</td>
</tr>
<tr>
<td>122 Investment in associated companies</td>
<td>223 Advances from associated companies.</td>
</tr>
<tr>
<td>123 Other investments</td>
<td>224 Other long-term debt.</td>
</tr>
<tr>
<td>2. Special funds</td>
<td>7. Current and Accrued Liabilities</td>
</tr>
<tr>
<td>125 Sinking funds</td>
<td>Notes payable.</td>
</tr>
<tr>
<td>126 Depreciation fund</td>
<td>225 Payables to associated companies.</td>
</tr>
<tr>
<td>127 Amortization fund—Federal</td>
<td>226 Accounts payable to associated companies.</td>
</tr>
<tr>
<td>128 Special income funds</td>
<td>227 Customer deposits.</td>
</tr>
<tr>
<td>228 Other special funds</td>
<td>228 Taxes accrued.</td>
</tr>
<tr>
<td>229 Other deferred credits</td>
<td>229 Interest accrued.</td>
</tr>
<tr>
<td>230 Other current and accrued liabilities</td>
<td>Other current and accrued liabilities.</td>
</tr>
<tr>
<td>231 Notes payable</td>
<td>231 Dividends declared.</td>
</tr>
<tr>
<td>232 Accounts payable</td>
<td>232 Matured long-term debt.</td>
</tr>
<tr>
<td>131 Cash</td>
<td>234 Tax collections payable.</td>
</tr>
<tr>
<td>132 Special deposits</td>
<td>235 Miscellaneous current and accrued liabilities.</td>
</tr>
<tr>
<td>133 Interest special deposits</td>
<td>8. Deferred Credits</td>
</tr>
<tr>
<td>134 Dividend special deposits</td>
<td>251 Unamortized premium on debt.</td>
</tr>
<tr>
<td>135 Working funds</td>
<td>252 Customer advances for construction.</td>
</tr>
<tr>
<td>136 Temporary cash investments.</td>
<td>253 Other deferred credits.</td>
</tr>
<tr>
<td>137 Notes receivable</td>
<td>9. Operating Reserves</td>
</tr>
<tr>
<td>138 Accounts receivable from associated companies</td>
<td>254 Property insurance reserves.</td>
</tr>
<tr>
<td>139 Material and supplies</td>
<td>255 Injuries and damages reserve.</td>
</tr>
<tr>
<td>140 Accounts receivable from associated companies</td>
<td>256 Pension and benefit reserve.</td>
</tr>
<tr>
<td>141 Material and supplies</td>
<td>257 Amortization reserve—Federal.</td>
</tr>
<tr>
<td>142 Material and supplies</td>
<td>258 Miscellaneous operating reserves.</td>
</tr>
<tr>
<td>143 Material and supplies</td>
<td>10. Contributions in Aid of Construction</td>
</tr>
<tr>
<td>144 Material and supplies</td>
<td>Contributions in aid of construction.</td>
</tr>
<tr>
<td>145 Material and supplies</td>
<td>11. Accumulated Deferred Income Taxes</td>
</tr>
<tr>
<td>146 Material and supplies</td>
<td>261 Accumulated deferred income tax—Liberalized depreciation.</td>
</tr>
<tr>
<td>147 Material and supplies</td>
<td>262 Accumulated deferred income tax.</td>
</tr>
<tr>
<td>148 Material and supplies</td>
<td>263 Other accumulated deferred income taxes.</td>
</tr>
<tr>
<td>149 Material and supplies</td>
<td>12. Other Deferred Debts</td>
</tr>
<tr>
<td>150 Material and supplies</td>
<td>264 Other deferred debts.</td>
</tr>
<tr>
<td>151 Material and supplies</td>
<td>265 Preliminary survey and investigation charges.</td>
</tr>
<tr>
<td>152 Material and supplies</td>
<td>266 Miscellaneous deferred debts.</td>
</tr>
<tr>
<td>153 Material and supplies</td>
<td>267 Miscellaneous deferred debts.</td>
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<td>154 Material and supplies</td>
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<td>168 Material and supplies</td>
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<td>169 Material and supplies</td>
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<td>173 Material and supplies</td>
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<td>174 Material and supplies</td>
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<td>177 Material and supplies</td>
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<td>178 Material and supplies</td>
<td>292 Miscellaneous deferred debts.</td>
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<td>179 Material and supplies</td>
<td>293 Miscellaneous deferred debts.</td>
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<td>180 Material and supplies</td>
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<td>181 Material and supplies</td>
<td>295 Miscellaneous deferred debts.</td>
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<td>182 Material and supplies</td>
<td>296 Miscellaneous deferred debts.</td>
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<tr>
<td>183 Material and supplies</td>
<td>297 Miscellaneous deferred debts.</td>
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<tr>
<td>184 Material and supplies</td>
<td>298 Miscellaneous deferred debts.</td>
</tr>
<tr>
<td>185 Material and supplies</td>
<td>299 Miscellaneous deferred debts.</td>
</tr>
<tr>
<td>186 Material and supplies</td>
<td>300 Miscellaneous deferred debts.</td>
</tr>
</tbody>
</table>

asset, but properly should be shown on the right side of the balance sheet as contra or negative accounts to the respective capital stock or bond account. This position has been adopted in the revised system of accounts prescribed for electric utilities.

However, there are certain inconsistencies in prescribed accounting and generally accepted accounting principles which evidently are not due to the influence of regulation. The failure of the prescribed system to require classification of long-term debt maturing within one year as a current liability represents a departure from generally accepted accounting principles. The definition of current and accrued liabilities in the uniform system reads as follows: "Current and accrued liabilities are those obligations which have either matured or which become due within one year from the date thereof: except, however, bonds, receivers' certificates and similar obligations which shall be classified as long-term debt until date of maturity."30 As a satisfactory condition as to solvency is assumed in the case of public utilities,31 this departure from generally accepted accounting principles may be partially excused for the sake of expediency and the relative unimportance of the current ratio and other tools for analysis used in determining business solvency.

Another inconsistency of prescribed accounting in comparison with generally accepted accounting principles relates to the sale of capital stock. Instruction A of Account 214 (Capital Stock Expense) is as follows:

30 Ibid., p. 36.
This account shall include in a separate subdivision for each class and series of stock all commissions and expenses incurred in connection with the original issuance and sale of capital stock, including additional capital stock of a particular class or series as well as first issues. Expenses applicable to capital stock shall not be deducted from premium on capital stock.  

The usual procedure in accounting for a cash sale of capital stock with a par value is to debit cash for the net proceeds realized from the sale, credit the related stock account for the par value and then debit a discount or credit a premium account for the difference. In effect, the expenses of the sale of the capital stock are "washed out" through the discount or premium account. In electric utilities, however, separate recognition must be given to the expenses involved in the sale of capital stock. The capital stock expense account was also shown on the asset side of the balance sheet under the prior system, but under the revised system, the account appears as a negative item in the "Other paid-in capital" section of the financial statement. This practice does reflect more complete disclosure of the effects of the transactions involving capital stock, but the question of the usefulness of the additional information could certainly be raised. Probably the reason for the procedure being prescribed in this manner in accounting for electric utilities is due to the financial manipulations which used to be characteristic of the public utilities. It should be recalled that regulatory authorities use accounting control to regulate the issuance of securities as well as rate regulation.

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Income Accounts: The last section of the uniform system of prescribed accounts for electric utilities is composed of the income accounts, two groups of subaccounts for detailed classification of operating revenues and operation and maintenance expense, and instructions for the use of each account.

The influence of regulation has effected the presentation of the financial data on the income statement more than on the balance sheet. Being regulated on a cost-plus basis, electric utilities are entitled to recover their legitimate operating expenses including depreciation plus a fair return on the investment in used and useful property. The divisions of the income statement can be observed in Figure 2 on page 53; operating expenses are deducted from operating revenues to determine the operating income of the utility or the return available to investors from the rendering of service to the public.

The concept of "above or below the line" has been introduced in the income statement to facilitate the regulatory process. Expenses are "above the line" for the purpose of accounting and regulation if they are considered to be reasonable and chargeable against customers. Nonoperating revenue and expense items are properly shown "below the line." The propriety of this and other unusual characteristics of electric utility accounting affecting the determination of income will be discussed at length in Chapter VI.
## FIGURE II

### INCOME ACCOUNTS

#### 1. Utility Operating Income

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>Operating revenues.</td>
</tr>
<tr>
<td>401</td>
<td>Operation expense.</td>
</tr>
<tr>
<td>402</td>
<td>Maintenance expense.</td>
</tr>
<tr>
<td>403</td>
<td>Depreciation expense.</td>
</tr>
<tr>
<td>404</td>
<td>Amortization of limited-term electric plant.</td>
</tr>
<tr>
<td>405</td>
<td>Amortization of other electric plant.</td>
</tr>
<tr>
<td>406</td>
<td>Amortization of electric plant acquisition adjustments.</td>
</tr>
<tr>
<td>407</td>
<td>Amortization of property losses.</td>
</tr>
<tr>
<td>408</td>
<td>Taxes other than income taxes.</td>
</tr>
<tr>
<td>409</td>
<td>Income taxes.</td>
</tr>
<tr>
<td>410</td>
<td>Provision for deferred income taxes.</td>
</tr>
<tr>
<td>411</td>
<td>Income taxes deferred in prior years—Credit. Total operating expenses.</td>
</tr>
</tbody>
</table>

**Operating income.**

| 412-413 | Income from electric plant leased to others. |
| 414     | Other utility operating income. Total operating income. |

#### 2. Other Income

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>415-416</td>
<td>Income from merchandising, jobbing and contract work.</td>
</tr>
<tr>
<td>417</td>
<td>Income from nonutility operations.</td>
</tr>
<tr>
<td>418</td>
<td>Nonoperating rental income.</td>
</tr>
<tr>
<td>419</td>
<td>Interest and dividend income.</td>
</tr>
</tbody>
</table>

#### 3. Miscellaneous Income Deductions

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>421</td>
<td>Miscellaneous nonoperating income. Total other income. Total income.</td>
</tr>
</tbody>
</table>

#### 4. Interest Charges

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>427</td>
<td>Interest on long-term debt.</td>
</tr>
<tr>
<td>428</td>
<td>Amortization of debt discount and expense.</td>
</tr>
<tr>
<td>429</td>
<td>Amortization of premium on debt—Cr.</td>
</tr>
<tr>
<td>430</td>
<td>Interest on debt to associated companies.</td>
</tr>
<tr>
<td>431</td>
<td>Other interest expense.</td>
</tr>
<tr>
<td>432</td>
<td>Interest charged to construction—Cr. Total interest charges. Net income.</td>
</tr>
</tbody>
</table>

#### 5. Earned Surplus

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>216</td>
<td>Unappropriated earned surplus (at beginning of period).</td>
</tr>
<tr>
<td>433</td>
<td>Balance transferred from Income.</td>
</tr>
<tr>
<td>434</td>
<td>Miscellaneous credits to surplus.</td>
</tr>
<tr>
<td>435</td>
<td>Miscellaneous debits to surplus.</td>
</tr>
<tr>
<td>436</td>
<td>Appropriations of surplus. Net addition to earned surplus.</td>
</tr>
<tr>
<td>437</td>
<td>Dividends declared—Preferred stock.</td>
</tr>
<tr>
<td>438</td>
<td>Dividends declared—Common stock.</td>
</tr>
<tr>
<td>216</td>
<td>Unappropriated earned surplus (at end of period).</td>
</tr>
</tbody>
</table>

CHAPTER V

ACCOUNTING FOR UTILITY PLANT: ACQUISITION AND DEPRECIATION

The appraisal of prescribed accounting for electric power and light companies begun in the preceding chapter continues in this chapter. The subject matter under review are those problems of accounting relating to the acquisition and subsequent depreciation of utility property. Accounting for utility plant is of considerable importance in the utility field because of the relatively large amount of plant investment and its slow turnover. Also, governmental regulation places an additional significance upon plant accounting for public utilities. Regulation of public utilities by regulatory or public service commissions is concerned both with a return on and a recovery of the property committed by the utilities to the public service. Accounting control has been used by commissions to assist them in each of these problem areas. Some observations pertaining to the regulatory process will first be made, and then attention will turn to prescribed plant accounting for electric utilities.

Two variables are encountered in the determination of the return on the property employed by a public utility in rendering a service to the public. These variables are (1) the rate base and (2) a percentage rate of return. Consideration was given in Chapter III to the various methods of property valuation which have been used in establishing the rate base. Basically, the solution to the problem has been from either a cost or value approach. Fair-value, original cost, reproduction cost,
prudent investment, and variations or combinations of these methods have been used in the short history of utility regulation in the United States. During periods of rising prices which have characterized much of this period of history, commissions have sought to use a lower cost standard and have advocated either the original cost or prudent investment method. On the other hand, the utilities, seeking an increase in rates, have assailed the cost standard and have stressed the merits of a fair-value or reproduction base.

The equity of one or the other of these methods from an economic standpoint is beyond the scope of this study; the accountant has a contribution to make regardless of the method of property valuation employed in fixing the rate base. However, the influence of regulatory concepts of property valuation upon the system of accounts prescribed by regulatory commissions should be seriously questioned by the accounting profession. The purpose of accounting has been and should continue to be to present the truth relating to the financial position and activities of a business entity to the various readers of the financial statements, not only to the regulatory commissions as in the case of regulated industries, but also to management, investors, creditors, labor groups, and the like. The materiality of plant investment in the public utility industries and its effect upon the determination of net income makes it obligatory upon accountants to object to prescribed rules and practices in accounting for capital expenditures which differ drastically from generally accepted principles of accounting.

The earnings to which a utility is entitled is obtained by multiplying the rate base by a percentage rate of return. The legal controversy has largely centered upon the method of property valuation
used in determining the rate base; yet, a small percentage difference in
the rate of return makes a large quantitative difference in the amount of
earnings. With a fixed rate base, an increase in the rate of return from
5 to 6% amounts to a 20% increase in earnings. Among the factors consid-
ered by commissions and courts in determining the allowable rate of return
have been the historical cost of debt and equity capital, the market rate
of interest, the return received on corresponding risks and uncertainties,
and the economic conditions of the locality in which the utility operates. ¹

The rate of return is thus based partly on financial facts and
partly on subjective thinking by commissions and courts. As is true of
the rate base, the rate of return shall be ascertained by an "enlightened
judgment of all relevant facts." Brief consideration has been given to
the rate of return in order to emphasize the uncertainties involved in the
determination of both the rate base and the rate of return--the two vari-
ables involved in computing the return on the property committed to the
public service.

Utilities are also entitled to a recovery of the property
employed in rendering a public service. This precedent was firmly
established in 1909 in the *Knoxville Water Company* case² when the Supreme
Court said:

Before coming to the question of profit at all the company
is entitled to earn a sufficient sum annually to provide
not only current repairs, but for making good the depreciation
and replacing the parts of the property when they come to the

¹Troxel, op. cit., pp. 372-376.
end of their life. The company is not bound to see its property gradually waste, without making provision out of earnings for its replacement.  

Depreciation of capital assets in the public utility field produces two problems. The first problem is the computation of the annual charge which is shown "above the line" on the income statement and is charged to customers as a reasonable cost of doing business. The charge which appears on the books of account of utilities is based on original cost, or the cost to the first person devoting the property to public use. In the case of self-constructed utility plant, the procedure is in accordance with generally accepted principles of accounting as original cost would be substantially identical to historical cost as the term is commonly used in accounting.

However, with the acquisition of a utility plant from a previous owner by means of an outright purchase, merger, or consolidation, the total charge which can be recovered from customers, or shown "above the line" on the income statement, is usually limited to the depreciated original cost of the property which may be more or less than the historical cost or cost to the accounting entity. In most acquisitions in the electrical industry, there is an excess of cost to the accounting entity over the depreciated original cost because of the rising cost of plant construction. This amount is called an "electric plant acquisition adjustment," and is recorded in a separate account to be amortized or otherwise disposed of as the Federal Power Commission may approve or direct.

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3 Ibid., p. 13.

With one exception, the Federal Power Commission has required the charges to be made "below the line" on the income statement, thus being charged to the investors rather than the consumers. Although immediate write-offs against retained earnings have been ordered, the usual policy of the Commission is to require amortization of the acquisition adjustment over a ten- or fifteen-year period. The disposition of these amounts appears to be arbitrary; at least the Commission has not set forth its basis of determination in any case.

Accountants are prone to accept prescribed procedures which differ from generally accepted accounting principles with the excuse that the distinct features of utility accounting are useful in the regulatory process. Just how useful some of the prescribed requirements are in the regulatory process can be illustrated by referring to the authority of the orders of the Federal Power Commission requiring the disposal of the electric plant acquisition adjustments. Order 42-A, issued by the Commission on July 11, 1939, and currently in force provides:

Disposition of amounts in . . . Plant Acquisition Adjustment Accounts is for accounting purposes only, and such disposition shall not be construed as determining or controlling the consideration to be accorded these items in rate or other proceedings.

This statement contradicts the logical assumption that an order of the Federal Power Commission requiring the amortization of the plant acquisition adjustment "below the line" would receive compatible regulatory treatment.

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The amortization of sizeable amounts of actual plant investment over relatively short periods of time amounts to a clear violation of the principle of matching costs and revenues without benefiting the regulatory process. The magnitude of the electric plant acquisition adjustment is elucidated in the following quotation from an annual report of the Federal Power Commission.

Formal orders and other actions of the Commission to June 30, 1960, affecting 300 companies, authorized the disposition or writing off of amounts classified as plant adjustments totaling $1,630,447,615. This included $919,129,593 representing the excess of bona fide cost over original cost of utility plant acquired through purchase, merger, etc., which had been disposed of either by immediate charges to earned surplus or amortized over periods varying from 3 to 15 years by charges to Account 537, Miscellaneous Amortization (Account 425 of the revised system, a "below the line" item).7 (Underscoring and material in parentheses supplied.)

Without a doubt these write-offs as reflected in the published financial statements of the individual companies have influenced greatly the selling price of electric utility stocks and bonds.

The second main problem associated with depreciation of utility plant in the electric utility industry is the deduction for depreciation in the determination of the rate base. Again there is conflict between the utilities and the commissions. Commissions which insist upon a cost standard of property valuation, for example, the Federal Power Commission, maintain that the past depreciation charges or the accumulated depreciation should be deducted from the rate base because this amount has been recovered from customers through operating expense deductions. On the other hand, companies favor the deduction only of the

actual depreciation that is observed and computed by engineers.\(^8\) The deduction of the accumulated depreciation simplifies the establishment of the proper rate base, and is generally conceded where a cost standard of property valuation is used.\(^9\) However, in the minority jurisdiction of the fair-value or reproduction cost states, some measure of observed depreciation may be employed.

Another regulatory problem involving plant investment can be briefly mentioned. Regulatory commissions have to contend with price-level changes in setting rates which will enable utilities to realize reasonable earnings. Considerable study has been given to the changing value of the dollar during recent years by the accounting profession and other business groups. The problem is unsettled; the AICPA has recognized the inflationary problem, but has insisted that financial statements should remain on the objective, verifiable basis of cost. Full support has been given by the AICPA to the disclosure by supplementary means of the effects of price-level changes upon the determination of net income.

Various commissions have treated price-level changes in different ways. According to Walter A. Morton,

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\text{Inflation in the price of new equipment is automatically reflected in the rate base. The vital question which remains is whether the valuation of, or the rate of return on, previously acquired plant should also be adjusted for changes in money values. Some states believe they should, and seek to achieve this result by giving important weight to "cost of reproduction." However, another view, which appears to be dominant in the "original cost"}
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\(^8\) Troxel, op. cit., p. 329.

\(^9\) Bonbright, op. cit., p. 196.
Although some commissions and courts have completely ignored price-level changes, others have made adjustment in either the rate base, depreciation charge, or the rate of return. In a recent case the Supreme Court of Iowa approved a fair-value rate base by giving 70% weight to reproduction costs and 30% to original cost, and then allowed a depreciation charge based upon the fair-value rate base.11

In the preceding pages of this chapter, an attempt has been made to stress the uncertainty, vacillation, and differences on the part of commissions and courts in the regulation of earnings of electric utilities. The objective of this approach to the study of prescribed plant accounting was to provide the proper perspective by which regulatory accounting for electric utilities could be adequately appraised. Otherwise the present status of prescribed accounting would be more or less accepted as being necessary in the regulatory process.

Definition of Utility Plant

A concise definition of utility plant is not included in the list of definitions contained in the uniform system of accounts prescribed by the Federal Power Commission for electric utilities. By examining the supporting instructions and the descriptions of the various plant accounts, however, the characteristics of utility plant can be delineated. It may thus be said that utility plant:


1. Consists of both tangible and intangible assets.\(^{12}\)

2. Is owned and used by the utility in its electric utility operations, and has an expectancy of life in service of more than one year.\(^{13}\)

3. Should not include "... hand and other portable tools, which are likely to be lost or stolen or which have relatively small value (for example, $50 or less) or short life, unless the correctness of the accounting therefor as electric plant is verified by current inventories."\(^{14}\)

With the exception of the inclusion of intangible assets, the concept of utility plant conforms generally with the common accounting usage of the term "fixed assets."

In accounting for a non-regulated enterprise, the term "fixed assets" or the more descriptive (and preferred) title "plant and equipment" is used to refer to assets of a tangible and relatively permanent character that are used in the normal operations of a business. The intangible assets of an industrial or commercial firm are preferably shown under a separate caption on a published balance sheet, although sometimes the intangible assets are included in a subdivision of the fixed asset grouping. Disclosure is always made, though, of the amount of intangible assets remaining on the books of the accounting entity. The nature of intangibles, for example, organization costs, franchises, patent rights, et cetera, is such that a significant loss could occur if an enterprise should cease as a going concern. Hence, analysts frequently exclude intangible assets from their computations and base ratios or interpretative percentages upon the tangible assets or the tangible net worth.

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\(^{13}\)Ibid., p. 22.

\(^{14}\)Loc. cit.
Although the amount of the intangibles included in utility plant can be ascertained by referring to the detailed accounts in support of utility plant, this information is not disclosed on the financial statements of electric utilities which are made available to the public. No evidence is available to support the inclusion of intangible items in utility plant; it can only be assumed that the commissions are of the opinion that all items of relatively long life which affect the rate base should be included in utility plant. Inasmuch as an allowance is always made for working capital in establishing the final rate base, it would appear that the commissions could also make an allowance for intangible assets. Accountants may partly justify the inclusion of intangible assets within the utility plant because of the insignificance of the dollar value of intangibles in relation to the dollar value of the tangible plant of an electrical utility.

**Balance Sheet Classification of Utility Plant**

The uniform system of accounts provides that plant costs of an electrical utility shall be classified in the following accounts:

<table>
<thead>
<tr>
<th>Account Number</th>
<th>Account Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>Electric plant in service</td>
</tr>
<tr>
<td>102</td>
<td>Electric plant purchased or sold</td>
</tr>
<tr>
<td>103</td>
<td>Electric plant in process of reclassification</td>
</tr>
<tr>
<td>104</td>
<td>Electric plant leased to others</td>
</tr>
<tr>
<td>105</td>
<td>Electric plant held for future use</td>
</tr>
<tr>
<td>106</td>
<td>Completed construction not classified - Electric</td>
</tr>
<tr>
<td>107</td>
<td>Construction work in process - Electric</td>
</tr>
<tr>
<td>114</td>
<td>Electric plant acquisition adjustment</td>
</tr>
<tr>
<td>116</td>
<td>Other electric plant adjustment</td>
</tr>
<tr>
<td>118</td>
<td>Other electric plant</td>
</tr>
</tbody>
</table>

**Electric plant in service:** The most significant of all utility plant accounts is the Electric plant in service. The original cost of the property—the cost incurred by the person who first devoted the
property to the utility service, not necessarily the cost to the present owner—which is used by the utility in its electric utility operations is recorded as electric plant in service.

The original cost is further classified in detailed accounts as shown in Figure 3 on page 65. The intangible plant costs are subdivided in three accounts—Organization, Franchises and consents, and Miscellaneous intangible plant. The tangible plant is functionally classified as either Production, Transmission, Distribution, or General Plant. Within each functional classification, the classification is based upon the physical characteristics of the property. Each of these accounts is supported by a description and, where appropriate, a list of items which are to be recorded therein. The separation of costs in this manner appears to be highly desirable in view of the integrated operations of electrical utilities.

The determination of original cost in many cases is a difficult problem. With the acquisition of an electric facility by self-construction, the system of accounts specifies that charges to the electric plant accounts must be "just and reasonable," otherwise the charges should be made "below the line" on the income statement.\(^1\) In addition, the system of accounts enumerates the components of construction costs.\(^2\) With one exception, the requirements of the system for the inclusion of direct costs and the allocation of overhead cost during a period of construction to the electric plant accounts present no unusual problems. However, contrary to generally accepted principles of accounting, Electric Plant Instruction 3(17) provides, in part, as follows:

\(^1\) Ibid., p. 4.
\(^2\) Ibid., p. 8.
FIGURE III

ELECTRIC PLANT ACCOUNTS

1. INTANGIBLE PLANT

Sec.
301 Organization.
302 Franchises and consents.
303 Miscellaneous intangible plant.

2. PRODUCTION PLANT

A. STEAM PRODUCTION

310 Land and land rights.
311 Structures and improvements.
312 Boiler plant equipment.
313 Engines and engine driven generators.
314 Turbogenerator units.
315 Accessory electric equipment.
316 Miscellaneous power plant equipment.

B. NUCLEAR PRODUCTION

320 Land and land rights.
321 Structures and improvements.
322 Reactor plant equipment.
323 Turbogenerator units.
324 Accessory electric equipment.
325 Miscellaneous power plant equipment.

C. HYDRAULIC PRODUCTION

330 Land and land rights.
331 Structures and improvements.
332 Reservoirs, dams and waterways.
333 Water wheels, turbines and generators.
334 Accessory electric equipment.
335 Miscellaneous power plant equipment.
336 Roads, railroads and bridges.

D. OTHER PRODUCTION

340 Land and land rights.
341 Structures and improvements.
342 Fuel holders, producers and accessories.
343 Prime movers.
344 Generators.
345 Accessory electric equipment.
346 Miscellaneous power plant equipment.

3. TRANSMISSION PLANT

350 Land and land rights.
351 Clearing land and rights of way.
352 Structures and improvements.
353 Station equipment.
354 Towers and fixtures.
355 Poles and fixtures.
356 Overhead conductors and devices.
357 Underground conduit.
358 Underground conductors and devices.
359 Roads and trails.

4. DISTRIBUTION PLANT

360 Land and land rights.
361 Structures and improvements.
362 Station equipment.
363 Storage battery equipment.
364 Poles, towers and fixtures.
365 Overhead conductors and devices.
366 Underground conduit.
367 Underground conductors and devices.
368 Line transformers.
369 Services.
370 Meters.
371 Installations on customers' premises.
372 Leased property on customers' premises.
373 Street lighting and signal systems.

5. GENERAL PLANT

389 Land and land rights.
390 Structures and improvements.
391 Office furniture and equipment.
392 Transportation equipment.
393 Stores equipment.
394 Tools, shop and garage equipment.
395 Laboratory equipment.
396 Power operated equipment.
397 Communication equipment.
398 Miscellaneous equipment.
399 Other tangible property.

"Interest during construction: includes the net cost for the period of construction of borrowed funds used for construction purposes and a reasonable rate on other funds when so used.\textsuperscript{17}

Although the capitalization of interest on borrowed funds has been partially accepted in the industrial field, the recognition of interest on equity funds as a proper cost of plant construction with a concurrent recognition of income has been definitely rejected in accounting for non-regulated industries.\textsuperscript{18}

Regulatory principles govern the capitalization of interest during a period of construction. It is held that "... the public utility consumers of any given year should pay a return only on the costs of those assets that are performing for them a useful service."\textsuperscript{19}

The general practice has been to exclude from the rate base all costs of construction work in process. To reward the utilities for the commitment of capital during the period of construction, regulatory authorities have permitted the inclusion of a computed allowance for interest during construction as a "just and reasonable" component of construction costs. Interest during construction on both borrowed and equity capital is recorded by a debit to the appropriate plant account and a credit to Account 432 - Interest charged to construction, an income account which is shown "below the line" on the income statement. After the completed plant is placed in operation, the utility firm will recoup the interest charges through an enhanced rate base and larger depreciation charges. Thus, future consumers will bear the burden of the unproductive capital during the construction period.

\textsuperscript{17}\textit{Ibid.}, p. 9.
\textsuperscript{18}\textit{Blough, loc. cit.}
\textsuperscript{19}\textit{Bonbright, op. cit.}, p. 178.
The uniform system of accounts specifies that the amount of the interest charged to construction shall be the net cost of borrowed funds plus a reasonable rate on other funds. Foster and Rodey object to this distinction between debt and equity capital, and insist that an imputed rate of interest, based upon the current cost per dollar of total capital to the enterprise, should be applied to all funds used during construction.\textsuperscript{20} In commenting upon the proposed revision of the system of accounts, a letter from Arthur Andersen to the Federal Power Commission contained the following:

Since, under ordinary circumstances, it is impractical or impossible to determine the source of funds used for each construction project, or even for the aggregate of all construction projects, the public utility should be permitted to charge interest during construction at an overall estimated cost of money rate.

No action was taken on this point or on thirteen other recommendations made by Arthur Andersen with respect to the proposed draft of the revised system of accounts for electric utilities. As is true in many instances, the system of accounts states only that the rate of interest on "other funds" shall be reasonable. Provisions of this nature leave much power in the hands of commissions. The inclusion of interest on funds during a period of construction at a rate larger than the prevailing cost of debt capital has even been challenged by staff members of the Federal Power Commission on the grounds of accounting principles.\textsuperscript{21}

\textsuperscript{20}Foster and Rodey, op. cit., p. 275.

\textsuperscript{21}Bonbright, op. cit., p. 179. Professor Bonbright makes an interesting observation: "Both sides in rate-case disputes have a tendency to find these 'accepted principles' relevant when, but only when, they comport with whatever rules of rate making they favor in the case at bar." Loc. cit.
The policy of capitalizing interest during construction is widespread in the electrical industry. Naturally, the utilities want to inflate their costs (for rate-making purposes) in order to realize a larger return on and recovery of property committed to the public service. A review of recent income statements of twenty-five electric utilities reveals only two companies which failed to set forth separately the amount of interest charged to construction; this materially affected the determination of the final net income figure. A study of the financial reporting practices of fifty-six gas and electric utilities for the years 1957 through 1959 disclosed that fifty of the companies used a separate caption to disclose interest charged to construction. In regard to the significance of this item, in 1959 the composite income account of the Class A and B electric utilities reporting to the Federal Power Commission shows that the net income of $1,656 million included a credit of interest charged to construction of $103 million. Yet, in the comprehensive annual reports filed with the Commission, the electric utilities are not required to disclose the amount of capital involved or the rate of interest used in determining the amount of interest charged to construction.

The same situation exists in the annual reports available to stockholders and the general public. Only the amount of interest charged to construction is normally given; neither the financial statements nor


the accompanying notes included in the annual reports examined in this study contained any information concerning the determination of the amount of interest charged to construction. Also, the annual reports contained no disclosure of the unique practice of capitalizing interest in the utility field.

The alternative to the inclusion of interest during construction as a proper cost of plant construction would be to include the cost of construction work in process directly in the rate base. Some discrimination among consumers would result by including construction work in process in the rate base, especially during periods of erratic or rapid plant expansion. However, more serious discrimination probably results from other imperfections of the regulatory process; a good example would seem to be the "regulatory lag," which Bonbright defines as "... the quite usual delay between the time when reported rates of profit are above or below standard and the time when an offsetting rate decrease or rate increase may be put into effect by commission order or otherwise." 24

Although the capitalization of interest, particularly on equity funds, has not been generally accepted as sound accounting, the practice does have support on theoretical grounds. No accountant would question the existence of an economic cost when funds are committed to the production of inventory or the construction of physical facilities. Such costs must be considered to achieve a complete matching of costs and revenues. Nevertheless, these implicit costs have not been given recognition in the books of account. The disagreements in the utility field concerning the distinction between debt and equity capital and the

24 Bonbright, op. cit., p. 53.
appropriate measure of a rate of interest illustrate the difficulties encountered when attempts are made to enter subjective areas and to give accounting recognition to implicit costs.

More significant, however, than the capitalization of interest is the requirement of the system of accounts that utility plant acquired from a previous owner must be recorded in the Electric plant in service account at the cost of the first person devoting the property to public service. This concept of cost, called "aboriginal" cost by its foes, was first conceived by the public service commission of Wisconsin, and was introduced in the system of accounts of the Federal Power Commission in 1937. Original cost was severely attacked immediately thereafter and criticism continued during the 1940's, but during later years it has received less and less attention in the professional literature. But the concept still exists and has a decided effect upon the valuation of plant, the measurement of net income, the regulation of earnings, and the purchase and sale of utility property.

The regulatory case for original cost can best be illustrated by referring to a hypothetical rate case. For example, assume that an electric operating unit with a depreciated original cost of $100,000 was transferred to another owner, either as a result of an arm's length bargaining or a transaction between affiliates, at a fair market price of $125,000. The second owner would insist that his cost of $125,000 should be permitted to earn a rate of return; however, under the true original cost concept of rate regulation, the rate base would be restricted to the depreciated original cost of $100,000, the unrecovered capital which had been committed to the public service. As Bonbright explains it, "... investors are not compensated for buying utility
enterprises from their previous owners any more than they are compensated for the prices at which they may have bought public utility securities on the stock market. Instead, they are compensated for devoting capital to the public service. The buying company merely takes over the former company's claim to a return on and recovery of the capital originally devoted to the public service. Utility property, like other property, is bought and sold at prices reflecting the expectations of the buyers and sellers as to what the properties can be made to earn in the future. If an amount in excess of the depreciated original cost is paid upon the acquisition of an operating unit or system, the buying company must be willing to accept a rate of return on its investment which is less than that earned by the selling company.

This interpretation of original cost as a property valuation standard for rate purposes has been generally upheld by the courts. The language of Judge Learned Hand in the Niagara Falls Power Company decision is directly in point. Judge Hand ruled that even though an amount in excess of original cost had been paid in good faith upon the acquisition of utility property, the company was not necessarily entitled to include the excess over original cost in the rate base. In this connection, he said:

For if that is true, the builder of a road who does not sell it, is at a disadvantage compared with one who does. The builder who does not sell is confined for his base to his original cost; he who sells can assure the buyer that he may use as a base whatever he pays in good faith. If the builder can persuade the buyer to pay more than the original cost the

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24 Bonbright, op. cit., p. 177.
difference becomes part of the base and the public must pay rates computed upon the excess. Surely this is a most undesirable distinction.  

The laxity in accounting for plant assets of electric power and light companies contributed greatly to the present state of prescribed plant accounting. According to William A. Paton, plant accounting exhibited three main weaknesses during the early history of utilities. One of these weaknesses—the failure of utilities to classify plant costs properly, particularly the costs associated with an aggregate purchase of existing facilities—was used by the Federal Power Commission as justification for the "aboriginal" cost concept. The other weaknesses of utility plant accounting were improper accounting for piecemeal renewals and the failure to deal with depreciation systematically. As a result, the plant accounts were often inadequate for managerial and financial reporting purposes as well as regulatory purposes. The use of engineering appraisals to determine plant cost and depreciation became the controlling factor in rate-case disputes. However, with the advent of prescribed plant accounting, greater reliance has been placed upon the plant records of electric utilities in regulatory proceedings.

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26 Ibid., p. 793.


The usefulness of plant accounting records as an instrument of regulation received momentum in the Hope Natural Gas decision in 1944. In this case the Federal Power Commission had established the rate base by deducting the accumulated depreciation from the original cost of the property when first devoted to public service. The Supreme Court did not actually place its seal of approval on the process used by the Commission in determining the rate base, but neither did the Court reject the Commission's findings for failure to give consideration to reproduction costs. The essence of this decision led George O. May to say:

The decision clearly constitutes a new chapter in the history of accounting as a factor in rate regulation. It indicates that the day of the appraiser has passed and the era of accounting has arrived. It seems certain that rate regulation will become almost completely a matter of accounting.

The Federal Power Commission and many state commissions have henceforth become ardent advocates of this novel concept of original cost, not only for regulatory purposes, but also for accounting classification of plant cost. Even in the so-called fair value states, commissions give consideration to the cost of property when first devoted to public service.

The requirements of the revised system of accounts of the Federal Power Commission for the recording of plant cost of an acquired operating unit or system are essentially the same as those of the first system of accounts made effective on January 1, 1937. As previously indicated, original cost accounting was set forth as the only practical means to achieve and maintain an adequate classification of plant costs on the

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31 Foster and Rodey, op. cit., p. 32.

books of electric utilities. In addition, sizeable write-ups and inflated values had resulted from the practices of holding companies; these were to be set forth separately or possibly eliminated from the books of accounts under the original cost concept. The most important reason, however, for the adoption of original cost accounting was the fact that the Federal Power Commission favored the original cost method of property valuation for rate-making purposes, and wanted this information readily available from the books of account.

Subsequent to the adoption of original cost accounting by the Federal Power Commission, Mr. Charles W. Smith, Chief of the Commission's Bureau of Finance, Rates and Statistics was called upon to defend the concept in rate-case disputes in various states. In testimony before the Georgia Public Service Commission on April 7, 1945, Mr. Smith explained the purpose of original cost and the procedures involved as follows:

It was well known at the time of the drafting of the system of accounts, especially through the Federal Trade Commission investigations of the utility industry, that there was much inflation and a considerable amount of undisclosed intangibles in utility accounts. This problem was attacked in the accounting system by requiring the amounts in the plant accounts as the effective date thereof, to be frozen in Account 100.6, plant in the process of reclassification.

Utilities were then required to make comprehensive studies of the amount in that account and to reclassify the amounts unto three main categories; first, the original cost of plants; second, the difference between bona fide cost to the company and original cost; and, third, write-ups and other improper charges.33

These amounts were then to be recorded in the Electric plant in service, Electric plant acquisition adjustments, and Electric plant adjustments accounts, respectively.

Although somewhat cumbersome, the system of accounts was actually designed to disclose both original cost and cost to the accounting entity. The original cost of utility plant, estimated if not known, was recorded in the Electric plant in service account and its many subaccounts. Any legitimate costs to the present owner in excess of the original cost were lodged in the Electric plant acquisition adjustments account, so named because these amounts arose out of property acquisitions. The cost to the accounting entity could supposedly be ascertained by adding the amounts in the two accounts. Items which did not represent costs in any sense of the word, such as write-ups, were recorded as Electric plant adjustments. The amounts in both the Electric plant acquisition adjustments and the Electric plant adjustments accounts were to be "amortized, or otherwise disposed of" as the Federal Power Commission directed in a case-by-case analysis. This provision in the system of accounts gave the Federal Power Commission additional authority over the valuation of plant assets.

As long as the actual cost to the accounting entity was determinable from the accounts, the accounting profession could not seriously question the classification procedures which were designed to make available to the regulatory bodies the original cost of physical properties for rate-making purposes. Actually, the utility companies did not object to the classification requirements as much as they feared the compulsory write-off of amounts lodged in the adjustment accounts, particularly the bona fide plant costs recorded in the Electric plant
acquisition adjustments account. The utilities realized what the next step of the Federal Power Commission would be; the policy of the Commission has generally been to remove the plant adjustments immediately from the books of accounts, usually effected by charges to earned or capital surplus, and to require the amortization of the acquisition adjustments (actual plant costs to the present owner) over relatively short periods of time without regard to the productive lives of the acquired assets. The result of this course of action by the Federal Power Commission may be seen in the fact that physical properties of electric power and light companies, especially utility plants devoted to public service by a predecessor, are no longer reported on published financial statements in accordance with generally accepted accounting principles, but are presented in accordance with the mandates of the Federal Power Commission. And it should be emphasized that the rapid elimination of acquisition adjustments apparently serves no regulatory purpose inasmuch as the acquisition adjustments, with one exception, have been excluded from the rate base and the amortization of which has been shown "below the line" on the income statement.35

The emphasis throughout plant accounting for electric utilities is not necessarily upon cost to the accounting entity, but upon the original cost to the first person devoting the property to the public


35 "In order for a company to be entitled to include the dollars lodged in Account 100.5 (acquisition adjustments) in its rate base it must establish in a rate case, that such amounts produced consumer benefits of a character measurable in terms of specific amounts of money in order to warrant the inclusion of such sums in the rate base." Ibid., p. 21.
service. The problems in this connection are compounded because many of the present utility firms are an outgrowth of a series of purchases, mergers, et cetera. In his critical analysis of the original cost provisions of the system of accounts of the Federal Power Commission, William A. Paton, one of a few vigorous opponents of this unique concept of original cost, stated in 1944 that

Actually the basic principle of plant accounting adopted by the FPC system is "original cost," not cost to the present owner. It is "original cost" which is emphasized throughout the system; it is "original cost" which is set up in the detailed plant accounts; it is "original cost" which is subject to depreciation. "Acquisition adjustments," on the other hand, are dealt with as a necessary evil. They are set up in an "adjustments" account; they are excluded from the detailed plant ledger; they are subject to amortization, not depreciation; they may be disposed of at any time as the Commission may direct, and a part or all of the resulting charges may be excluded from revenue deductions.36

The attack on original cost was continued by Paton in his book, Asset Accounting, published in 1952.37 Paton, along with other well-known professional accountants, has also appeared as a company's witness in opposition to the prescribed requirements of the system of accounts of the Federal Power Commission.38

The public accountants and executives who were communicated with in the course of this study made many references to the prescription of original cost and its related problems. Representative remarks extracted from correspondence are as follows:

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36 Paton, op. cit., p. 437.
37 See pp. 373-410.
The accounting for plant cost for regulated utilities on the basis of "original cost" is in conflict with the generally accepted treatment of stating fixed assets at cost thereof to the company.

The prescription of so-called "original cost" rests upon the decision of regulatory bodies to establish the rate base upon the cost of property when first devoted to service rather than upon cost to the entity.

... in theory this is a fairly fundamental deviation, although in practice it does not loom as important today as it was some years ago.

The question of disposing of the cost of plant acquisitions in excess of original cost remains unresolved after 20 years. As a result there is a likelihood that the integration of various utility systems has been estopped, thereby depriving the public of the full benefits of superpower generation and transmission.

The philosophy underlying the recording of plant acquisitions at "original cost" rather than "cost to the utility" with a write-off of the difference to surplus or amortization of such excess over arbitrary periods is alien to the accepted accounting principles which are predicated on cost accountability on the part of the reporting company and the allocation of this cost over the estimated useful life of plant in a systematic and rational manner.

It is evident that the people in daily contact with the electric power and light industry are cognizant of the special accounting applicable to operating units or systems acquired from a predecessor. Yet, no opinion or recommendation on this topic has been issued by the AICPA.

A logical question seems to be--Is the present state of prescribed plant accounting actually a result of the requirements of the system of accounts? Observe the thinking of Charles W. Smith when the system of accounts was first adopted:

The method of plant accounting outlined in the Uniform System of Accounts of the Federal Power Commission is the only practicable method of giving vital information to regulatory bodies and other interested parties and at the same time, preserving to the companies their conception of cost to themselves. Original cost does not appear in the balance sheet but rather is a subdivision
or detail forming one part of the balance sheet account. The views of the commissions and utilities as to total plant are, therefore, harmonized. The disagreements, if any, concerns not the total plant account which appears in the balance sheet, but a detail thereof.\(^{39}\)

But the practice of the Federal Power Commission in requiring the elimination of the cost of plant acquisitions in excess of original cost has "unharmonized" the views of the Commission and the utilities. Even including regulatory considerations, there is no sound basis for treating the plant acquisition and adjustment slice of cost to the accounting entity differently from the amount of the cost which is placed in the Electric plant in service account. In answer to the above question, the words of William A. Paton are again appropriate.

\[\ldots\text{it must be recognized that the FPC system of accounts as such does not require arbitrary treatment of "acquisition adjustments." The door to such treatment is left ajar by the system, but there is nothing in the language of the prescribed accounts which compels the Commission to push the door open and use it.}^{40}\]

This is a most unfortunate situation, and no doubt the attitude of the Federal Power Commission will change as the composition of the Commission and staff members changes.

Considerable time and effort has been involved in the reclassification of utility plant on an original cost basis. When the original cost requirements were first introduced in the system of accounts in 1937, each electric utility and licensee subject to the jurisdiction of the Federal Power Commission was given a period of two years from the date the system became effective to a particular company in which to


\(^{40}\)Paton, op. cit., p. 437.
prepare and file with the Commission the reclassification and original
cost studies. Subsequent to the filing of a proposed reclassification
by a utility, the Federal Power Commission, in many cases assisted by
state commissions, would undertake a field examination to verify the
determination of original cost by the utility companies. The objections
raised by utility companies and accountants together with the expanding
jurisdiction of the Federal Power Commission obviously prolonged the
reclassification program. In reporting upon the status of the reclassifi-
cation and original cost studies in the Fortieth Annual Report for the
fiscal year ending June 30, 1960, the Federal Power Commission stated
that the work under this program was almost completed. It appears then
that the primary function of the Federal Power Commission in future years
with respect to the accounting classification of utility plant on an
original cost basis will deal with the purchase and sale of individual
operating units or systems.

Electric plant purchased or sold: Upon the acquisition of an
operating unit or system, the cost of acquisition, including expenses
incidental thereto, are charged to a clearing account—Electric plant
purchased or sold. The utilities are then instructed to submit proposed
journal entries to the Federal Power Commission within six months from
the date of acquisition to effect a transfer of the cost to the appro-
priate accounts. The supporting definition and instructions for the use
of the clearing account outline the procedures to be followed in

42 Loc. cit.
classifying the plant costs. Although the treatment afforded the acquisition adjustments continues to be the dominant feature of these procedures, further exceptions from common accounting practice are created by attempting to disclose the original cost of the utility plant when first devoted to public service.

For example, assume that an electric operating system was acquired from a previous owner at a cash cost of $1,000,000; assume also that the cost of the operating system when first devoted to public service as disclosed by the records of the vendor amounted to $800,000, and the depreciation applicable to the property accrued on the vendor's books totaled $100,000. Assuming that the system was to be placed in service by the acquiring company, the system of accounts requires the acquisition to be recorded as follows:

| Electric plant in service | 800,000 |
| Electric plant acquisition adjustments | 300,000 |
| Accumulated provision for depreciation of electric plant in service | 100,000 |
| Cash | 1,000,000 |

In the event of any degree of affiliation between the two companies, the Federal Power Commission is likely to call the amount of the purchase price in excess of the book value of the property on the vendor's books a mere "write-up" and insist that the "acquisition adjustment" was really only an "adjustment." As previously stated, the policy of the Commission has been to require more rapid disposition of debit balances in the Electric plant adjustments account than is usually required in the case of acquisition adjustments.

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44 Paton, op. cit., p. 448.
With reference to generally accepted accounting principles, in the above example the accountant would accept the stated price of $1,000,000 for entry in the accounts unless evidence of collusion or fraud was present. This amount, the actual cost to the buyer, is recorded in the appropriate asset account; neither the original cost to some predecessor nor the accumulated depreciation related thereto on the books of the vendor is taken into consideration by the accountant. Moreover, in the case of depreciable assets, the $1,000,000, less salvage value, if any, is the amount which is charged against revenue over the productive life of the asset.

The requirements of the uniform system of accounts in accounting for the acquisition of an operating unit or system, examined in conjunction with the practice of the Federal Power Commission in requiring the elimination of plant acquisition adjustments on an arbitrary basis, are in conflict with three of the basic concepts of accounting. These concepts which are universally recognized in the accounting profession and the business world are (1) the entity concept, (2) the cost concept, and (3) the periodic matching of cost and revenue. Each of these will be examined more closely.

The usual interpretation of the entity concept is that "The accountant views the business enterprise as a specific entity separate from its owners. It is this entity and its activities that assume the focus of his attention."45 (Emphasis supplied.) The accountant is concerned with one unit; thus, the reports of the accountant should reflect the results of accounting for this unit. According to Karrenbrock and Simons, "A plant item acquired in secondhand or used condition should be set up at actual

45 Karrenbrock and Simons, op. cit., p. 47.
cost rather than at its original cost to the seller less an allowance for depreciation on such cost. But in accounting for electric utilities, the accountant must record the original cost of utility plant acquired as an operating unit or system, and the accumulated depreciation applicable to the property on the books of the vendor company. The policy of the vendor company in accruing depreciation, the efficiency of the first owner in the construction of the system, and other factors relating solely to the previous owner or owners will influence greatly the accounting for utility plant on the books of the acquiring company. In the preceding example, if the vendor company had accrued depreciation on its books of $150,000 instead of the $100,000, the depreciated original cost of the acquired property which can be shown "above the line" on the income statements as revenue deductions in future years would have been only $650,000. Note that the $50,000 increase in the accumulated depreciation on the vendor's books would also have resulted in a $50,000 increase in the plant acquisition adjustment. By bringing into the books of the acquiring company items which pertain only to the previous owner, the significance of the cost to the accounting entity is considerably reduced.

In order for the books of account to be stated in complete agreement with the entity concept, the cost to the accounting entity should be disclosed in the property accounts, and the depreciation account should contain only the depreciation charges which have been made by the accounting entity since the acquisition of the property. Considering the desirability of disclosing original cost to the regulatory bodies from a utilitarian viewpoint, the realization of this objective in accounting for electric utilities is virtually impossible.

\[46\] Ibid., p. 442.
The cost concept is transgressed when the Federal Power Commission orders the elimination of plant acquisition adjustments. Section 120.4 of the Regulations Under the Federal Power Act contains the only statement of policy of the Commission in the disposition of the acquisition adjustments.\(^4^7\) This section provides, in part, as follows:

(a) Debit amounts in an Electric plant acquisition adjustments account may be charged to Earned surplus in whole or in part, or may be amortized over a reasonable period by charges to Miscellaneous amortization without further order of the Commission;

(b) Should a utility desire to account for debit amounts in an Electric plant acquisition adjustments account in any manner different from that indicated in paragraph (a), it shall petition the Commission for authority to do so;

(c) Debit balances shall not be determined by application of credit balances thereto;

(d) Credit amounts in an Electric plant acquisition adjustments account shall be accounted for as directed by the Commission.

The experience of the Federal Power Commission has dealt mainly with debit balances in the acquisition adjustments account or an excess of cost to the accounting entity over the depreciated original cost. In the few cases involving a credit balance in an acquisition adjustments account, which arise when the actual cost to the buyer is less than the depreciated original cost, it appears that most of them have been transferred to the accumulated provision for depreciation.\(^4^8\)

The cost concept requires that assets be recorded at the dollars of initial cost to the business entity. In non-cash acquisitions, the


fair market value of the asset given up or the fair market value of the asset received, whichever is more clearly discernible, is deemed to constitute the acquisition cost. The Federal Power Commission is abusing the cost concept in ordering, or even in permitting, the charging of a debit acquisition adjustment amount against earned surplus. Moreover, the failure to observe the cost concept in accounting for a plant acquisition leads automatically to an improper matching of cost and revenue over the productive life of the acquired plant.

The action of the Federal Power Commission in requiring the write-off of plant acquisition adjustments cannot be explained by analyzing the origin of these amounts. Paton states a debit balance in a plant acquisition adjustment account may be said to include three main elements:

1. The excess of the actual cost of land, water rights, and other natural resources over the "original cost" of such factors;

2. The excess of the actual cost of structures and equipment—depreciable assets—over their original cost, resulting primarily from advancing prices for equipment and higher costs of construction, after taking into account the effect of accrued depreciation;

3. An amalgam of intangibles.

The Federal Power Commission has apparently ignored the existence of increasing plant costs, but has placed much credence in the intangible factor. In fact, Mr. Smith has asserted that plant acquisition adjustments "represents the cost of intangibles, particularly prospective earning power." This may be completely true in certain cases. It has previously been established that in paying an amount in excess of the

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49 Paton, op. cit., p. 439.

50 Testimony of Mr. Charles W. Smith, loc. cit.; See also Paton, op. cit., p. 441.
depreciated original cost upon the acquisition of utility property, the buying
company must be willing to accept a lower rate of return on its investment
than was being earned by the previous owner. The validity of this statement
rests necessarily on the use of the depreciated original cost as the rate base
in regulatory proceedings. Actually, the buying company could capitalize the
excessive earnings in computing the maximum price that could be paid
upon the acquisition of utility property. But even if the total of the
acquisition adjustment represents intangibles, there is no sound basis for the
write-off of this amount against earned surplus, or for the amortization of the
"intangibles" over a shorter period of time than the life of the physical
properties to which the intangibles are identified.

In the acquisition of a mixed aggregate of property, consisting of both
tangible and intangible elements, sound accounting practice requires that
the amount assigned to the intangible assets should not be based on the
lump-sum consideration in excess of the book value of the assets on the
books of the seller, as undoubtedly is the case in accounting for electric
utilities, but the amount attributed to intangible assets should be the excess
of the actual cost to the buyer over the estimated values of the component
physical elements. Once the cost is accurately determined, the treatment
to be accorded intangible assets in subsequent financial statements
depends on the nature of the intangible assets.

Generally accepted principles of accounting recognize two types of
intangible assets which may arise in the purchase of a mixed aggregate of
property.\footnote{American Institute of Certified Public Accountants, Accounting
Research Bulletin No. 43, Restatement and Revision of Accounting Research
Bulletins, pp. 37-40.} Type A intangibles includes those having a limited
existence whereas Type B is comprised of intangible assets with no
indication of limited life. The minute details in accounting for these
types of intangibles are not here important. In general, Type A intang-
ibles, such as patents, copyrights, goodwill as to which there is evidence
of limited duration, et cetera, are amortized systematically over the
period of time benefited; Type B intangibles, for example, goodwill gen-
erally, going value, trade names, and the like should be written off when
there is reasonable evidence that they have become worthless. As
Mr. Smith speaks of the plant acquisition adjustments representing pros-
spective earning power, it is probably safe to assume that the bulk of
the intangibles included in the acquisition adjustments is of Type B.
Therefore, minor support can be found in accounting thought for the elimi-
nation of that portion of plant acquisition adjustment which is composed
of Type B intangibles. As a going concern operating in a regulated
sphere where no recognition is given to the acquisition adjustments in
rate proceedings, the elimination of the acquisition adjustments, if
composed entirely of Type B intangibles, from the books of an electric
utility is valid. From the standpoint of stewardship accounting, however,
the prospective earning power included in the acquisition adjustments
should be amortized over the period of time used in capitalizing the
excessive earnings. This is the only way whereby the efficiency of
management can be reasonably measured.

The whole argument breaks down, though, in permitting the
immediate write-off of the so-called "intangibles" against earned sur-
plus. The AICPA has explicitly ruled on this point. In the words of
the Committee on Accounting Procedure of the AICPA:

Lump-sum write-offs of intangibles should not be made to
earned surplus immediately after acquisition, nor should
intangibles be charged against capital surplus. If not amortized systematically, intangibles should be carried at cost until an event has taken place which indicated a loss or a limitation on the useful life of the intangibles. 52

In permitting a direct write-off of acquisition adjustments against earned surplus, the Federal Power Commission is violating the cost basis of accounting and prohibiting a proper periodic matching of cost and revenue. Plant acquisition adjustments should be dealt with on the same basis as the original cost segment of the actual cost to the present owner. If the Federal Power Commission is generous and permits an amortization of the acquisition adjustments over future periods, the period of amortization should not be arbitrary, but should normally be based on the productive lives of the physical assets. Indeed, in certain cases, the period of amortization for certain intangible elements may be longer than the productive life of any tangible asset in the aggregate purchase. In negotiations between the buyer and seller upon the acquisition of an operating unit or system, the buyer may have granted the seller an allowance for the intangible assets associated with the developed territory. Intangible assets of this nature could properly remain on the books indefinitely.

From a regulatory viewpoint, the logic of the Federal Power Commission in requiring the rapid elimination of the acquisition adjustments is not too clear. As previously indicated, neither the amount lodged in the acquisition adjustments account nor the amortization charge on the income statement have any bearing on rate regulation. The books of account and the periodic reports filed with the regulatory bodies disclose both the original cost and the acquisition adjustments whereas any

52 Ibid., p. 40.
amortization of acquisition adjustments is generally shown "below the line" on the income statement. But an immediate write-off or a rapid amortization of a part of the actual cost to the accounting entity expended upon the acquisition of an operating system would no doubt increase the cost of the entity's capital because of either a reduction of earned surplus available for dividends or a reduction in current earnings. Regulatory bodies consider, among other things, the cost of capital in establishing the rate of return in rate proceedings. It would appear then that the action of the Federal Power Commission in eliminating the acquisition adjustments would actually result in larger earnings to the utility companies than if generally accepted accounting principles were followed in accounting for the acquisition adjustments.

Also, the restraint on the purchase and sale of utility property resulting from the accounting disposition of the difference between the actual cost and the depreciated original cost probably increases the cost of capital in the long run. Paton reports that in one case the buyer refused to go ahead with a purchase transaction when confronted with a directive requiring the immediate write-off of approximately one-half of the total cash cost of the property. 53

The convention of comparability of accounting data can also be raised as an objection to the original cost provisions of prescribed plant accounting for electric utilities. For example, assume that a utility company buys one plant with a depreciated original cost of $500,000 on the books of the vendor for $1,000,000, and builds a substantially identical plant for another $1,000,000. The two plants may be comparable in several respects--same date of acquisition, identical

cost to the accounting entity, capable of rendering equal service to consumers—but one plant may be carried on the books at $500,000 whereas the other would be carried at its initial cost of $1,000,000. Accounting of this nature merely adds to the confusion which exists in the interpretation of financial statements.

Other Utility Plant Accounts: The scope of electric plant in comparison with the classification of plant and equipment in industrial or commercial accounting is more comprehensive than has been indicated by referring to the inclusion of intangible assets within the concept of utility plant in accounting for electric utilities. Utility plant includes not only electric plant in service, but also electric plant leased to others, electric plant held for future use, and construction work in process.

In non-regulated enterprises, a positive correlation is anticipated between plant and equipment and sales, gross margin, or net income from operations; hence, it is important for purposes of analysis and interpretation that the plant and equipment classification be restricted to items which contribute to the realization of sales revenues. To observe the concept of full-disclosure, it is necessary to recognize separately plant items, if material in amount, which are not used in the normal operations of the business entity. Although frequently in practice the plant and equipment classification is extended to include these items, plant items leased to others or properties held for future use are more properly classified as investments whereas construction work in process should be shown as a miscellaneous or other asset on published financial statements. The financial analyst, being fully informed as to the facts, is then in a position to exercise his judgment regarding these items in evaluating the performance of the company.
The inclusion of electric plant leased to others, electric plant held for future use, and construction work in process within the concept of utility plant in accounting for regulated utilities is of no benefit to the regulatory process. Except under unusual circumstances, these items are excluded from the rate base in rate proceedings, and accordingly do not contribute to the realization of operating revenues. In other words, under the conventional concept of rate regulation, operating revenues of electric utilities are derived solely from the utility plant in service plus a reasonable allowance for working capital. The investment in utility plant in service is disclosed in the financial statements and supporting schedules included in the periodic reports filed with regulatory bodies, but in the financial reports made available to the general public, the financial statements are commonly presented in condensed form and fail to disclose separately the amounts of electric plant leased to others, electric plant held for future use, and construction work in process. Thus, the financial analyst is unable to employ the traditional interpretative tools with the same degree of accuracy that is possible in analyzing the financial operations in non-regulated areas.

The disclosure given to the composition of utility plant on published financial statements of electric utilities must be considered in relationship with the requirements of the Securities and Exchange Commission. Sufficient disclosure of plant and equipment is provided for in reporting for non-regulated enterprises; the requirements of the Securities and Exchange Commission for the disclosure of plant and equipment on balance sheets, as set forth in Regulation S-X, are as follows:

State separately here, or in a footnote referred to herein, if practicable, each major class, such as land, buildings,
machinery and equipment, leasehold or functional grouping
and the basis of determining the amounts.\textsuperscript{54}

But public utilities are subjected to different standards when the
Securities and Exchange Commission specifies:

Tangible and intangible utility plant of a public utility
company shall be segregated so as to show separately the
original cost, plant acquisition adjustments, and plant
adjustments, as required by the system of accounts
prescribed by the applicable regulatory authority.\textsuperscript{55}

Consequently, disclosure of the details supporting electric utility plant
is drastically lacking in comparison with common accounting practices. A
study of the financial statements and accompanying notes included in the
annual reports of twenty-five electric utilities revealed the following:

1. Valuation on an original cost basis was disclosed in
every case, but no explanation of the concept of original
cost in utility accounting was contained in any report.

2. Six companies disclosed an acquisition adjustment
(commonly called cost in addition to original cost), and
indicated the period of amortization. Three other com­
panies stated the acquisition adjustments had been fully
amortized; however, since the amortization entries are
made directly to the acquisition adjustment account
rather than to a contra account, disclosure of fully-
amortized acquisition adjustments is not always assured.

3. In no case was there an attempt made to inform the readers
of the financial statements as to the effect of prescribed
accounting upon the cost of the utility plant.

4. Twelve diversified companies disclosed the investment in
electric plant, gas plant, and other utility plant.

5. Three companies revealed the cost of construction work in
process; one company indicated the cost of plant held for
future use; one company stated that utility plant included
intangibles, but did not indicate the amount; one company
stated that no intangibles were included in utility plant;
and one company listed a sizeable amount of unclassified
plant.

\textsuperscript{54}United States Securities and Exchange Commission, Regulation

\textsuperscript{55}Loc. cit.
The joint committee of the American Gas Association - Edison Electric Institute reported similar findings in its study of the financial reporting practices of utilities for the years 1957 through 1959. The minimum requirements of the Securities and Exchange Commission for the disclosure of utility plant on published financial statements of electric utilities leaves much to be desired; in isolated cases where an attempt has been made to follow generally accepted accounting practices in disclosing the composition of utility plant, the action of the management of the utilities, possibly with the encouragement of public accounting firms, exceeded the requirements of the Securities and Exchange Commission.

The materiality of electric plant in service to the other utility plant accounts partly justifies the prescribed procedures in utility plant accounting. On December 31, 1959, 94.4% of the electric plant investment of 269 Class A and Class B electric utilities was represented by electric plant in service; 5.2% was composed of construction work in process, and the balance of 0.4% was attributed to electric plant leased to others, electric plant held for future use, and plant acquisition adjustments. Still, in certain situations with individual companies, the latter items could represent a sizeable segment of the plant investment. Under such conditions, sound reporting practices would require disclosure of the plant investment beyond the requirements of the Securities and Exchange Commission. The responsibility for this disclosure rests largely on the members of the public accounting profession.

56 The Joint American Gas Association - Edison Electric Institute Project Committee on Financial Reporting, loc. cit.

Depreciation of Electric Plant in Service

Many writers have discussed the nature and purpose of depreciation of plant and equipment in non-regulated as well as regulated industries. No attempt is made in this paper to present fully the historical development of depreciation accounting or to discuss all of the many ramifications in accounting for the depreciation of utility plant; the main purpose of this section is to examine the current thinking with respect to the prescribed procedures of accounting for the depreciation of electric plant in service. The discussion is restricted to electric plant in service because of the materiality of this item in the composition of utility plant.

The Committee on Terminology of the AICPA has defined depreciation accounting as follows:

Depreciation accounting is a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation. Depreciation for the year is the portion of the total charge under such a system that is allocated to the year. Although the allocation may properly take into account occurrences during the year, it is not intended to be a measurement of the effect of all such occurrences.

Stated simply, the purpose of depreciation accounting is to apportion the cost of an asset over the operating periods benefited by the utilization of the asset. The recognition of depreciation complies with the concept

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of matching costs and revenues. It is thus apparent that depreciation is a determinant in the measurement of periodic business income.

This view of depreciation coincides with the usual treatment of depreciation for rate-making purposes. Utilities are permitted to recover their capital outlays through periodic charges for depreciation. The amount of the annual allowance is shown "above the line" on the income statement, hence being charged to consumers as a legitimate cost of doing business. Most commissions have the statutory power to regulate the accrual of depreciation. The problem is still highly controversial due to the absence of any single, theoretically correct answer. As a consequence, diverse methods and procedures are prescribed by state and federal regulatory commissions.

As stated in Chapter IV of this paper, depreciation accounting was included in the important revisions made in the prescribed systems of accounts that were set forth by the Federal Power Commission and the NARUC in 1937. Prior to that time, the utilities had generally practiced some form of retirement policy in accounting for capital assets. One method of retirement accounting is based on the theory that no depreciation should be recognized until the asset is eliminated from service; at the time of retirement, the cost of a plant item less any net salvage value is charged in full to operations. Under another view of retirement accounting, no depreciation is recognized until an asset is retired, but at that time the cost of the replacement is charged directly to operations. In order to equalize retirement costs each year, the utilities also modified the retirement policy by making some

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60 Paton and Paton, op. cit., p. 390.
annual charges to retirement expense and thereby accumulating a retirement reserve. All of these methods of retirement accounting had one element in common—the utilities were able to manipulate or to normalize the periodic net income. Such conditions were undesirable both from a regulatory and an accounting standpoint.

The prescription of depreciation accounting by the various regulatory commissions during the 1930's resulted in the elimination of one of the major differences in accounting for electric utilities and the prevailing generally accepted accounting practices. Further consideration will be given to the appropriate annual charge for depreciation in the determination of periodic net income in the following chapter.

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CHAPTER VI

THE DETERMINATION OF UTILITY INCOME

The art of accountancy in the United States received impetus during the latter part of the nineteenth century when bankers and other creditors began to request potential debtors to submit financial data upon applying for credit. These early creditors were chiefly concerned with the net worth of the debt applicant and the margin of safety of the creditor in the event of insolvency; thus, the balance sheet was the primary instrument upon which creditors based their decisions in granting credit. The income statement was viewed as merely a connecting link between successive balance sheets.

The increasing use of long-term credit instruments forced creditors to give more consideration to the earning power of the debtor. Creditors realized that earning power must be present in order for a debtor to be financially able to liquidate a debt in the distant future. The accounting summary which portrays the earning power of a business entity is the income statement. The income statement is the end result of the matching of costs and revenue for a period of time. Without doubt, this periodic matching of costs and revenue is the most difficult of accounting problems. The purpose of this chapter is to examine the periodic matching of costs and revenue for an electrical utility. A focal question throughout this discussion is: From the standpoint of comparability of income statements
of regulated and non-regulated industries, are creditors, investors, and other users of the financial statements of electrical utilities adequately informed?

Generally Accepted Principles of Income Determination

The subject of income determination has received a major share of attention in the professional literature during the past years; nevertheless, considerable misunderstanding exists today in the business world concerning the measurement of net income. This state of confusion stems partly from the multitude of procedures, forms, and terminology used by accountants in the measurement process; but the most important reason for misunderstanding in the realm of business income can be attributed to the limitations of accounting as the art has evolved to this date. The answers sought by investors, labor groups, and the like are not readily available from general-purpose financial statements. However, the vast majority of the readers of the published financial statements probably regard the amount of net income shown on the income statement as the most significant figure disclosed on the financial statements.

The significance of net income is due to the nature of the income or profit and loss statement. As the operation of any business is a continuing stream of activity, it is desirable to take a "test reading" periodically to determine the efficiency of the management entrusted with the firm's resources. The amount of the net income represents the earning power of the resources devoted to the operations of the business entity. This earning power is commonly expressed in terms of a percentage or in absolute terms of earnings per share of capital stock.
Prominence is given to such interpretative ratios in annual financial reports as well as in reports of investors' services and financial newspapers.

The importance of the income statement from a managerial viewpoint should not be overlooked. The income statement is used by management to evaluate its past accomplishments and to plan its future operations. A vertical analysis of the income statement, whereby each cost or expense item is expressed as a percentage of revenue, is useful to management for purposes of cost analysis and control.

The AICPA has rightly recognized the significance attached to net income. The Committee on Accounting Procedure of the AICPA has stated:

The fairest possible presentation of periodic net income, with neither material overstatement nor understatement, is important, since the results of operations are significant not only to prospective buyers of an interest in the enterprise but also to prospective sellers.¹

But it should be observed that precise measurement of net income has not and probably will never become a reality. Recognizing this fact, the AICPA has cautioned that undue reliance should not be placed upon the results of income determination.² In order to understand the difficulties encountered in the measurement of net income, it becomes necessary to acquire a conception of the theoretical structure of income determination. This theoretical structure is composed of a group of interrelated concepts. These concepts are considered in the following paragraphs.

¹American Institute of Certified Public Accountants, Accounting Research Bulletin No. 43, Restatement and Revision of Accounting Research Bulletins, p. 7.
²Ibid., pp. 18 and 65.
Basic Concepts in the Measurement Process

Various words—concepts, conventions, principles, standards, postulates, tenets, and canons—have been used at one time or another to refer to certain basic assumptions of accounting. Accountants are not in complete agreement as to the terminology used in referring to these assumptions; moreover, accountants are not in complete agreement in the compilation of these assumptions. This presentation is not intended to be exhaustive, but only to present some of the concepts that are well-recognized and the acceptance of which is necessary in the measurement of net income.

The Accounting Period: Basic to the measurement of net income for a business entity is the adoption of the accounting period. The acceptance of the accounting period convention permits the preparation of progress reports on an interim basis throughout the indefinite life of the business entity. Although the exact amount of net income realized cannot be ascertained until the termination of all business activity, the interim reports afford a continuous review of the earning power of the resources invested in the business. The period of time for which these progress reports are prepared is known variously as the accounting, fiscal, or operating period.

Although income or operating statements are frequently prepared for managerial purposes on a quarterly or monthly basis, the accounting period most commonly selected for financial reporting to the general public is the calendar year. The main problem created by the division of the life span of a business entity into arbitrary periods of time is the assignment of revenues and expenses to the proper accounting period. The failure of the flow of entity transactions to conform exactly with
these prescribed time intervals necessitates the acceptance of another basic assumption of accounting--the matching process.

The Matching Process: The determination of net income results from the application of the concept of the periodic matching of cost and revenue. Net income emerges when recognized revenues exceed recognized expenses; on the other hand, a net loss is incurred when the expenses exceed revenues. The accountant must not only determine the amount of revenue to be recognized in a particular accounting period, but he must also determine the proper amount of expense to be deducted therefrom in a sound determination of net income.

Finding satisfactory bases of association is the major problem encountered in the matching of cost and revenue. Ideally, all expenses incurred in the realization of revenue should be included in the measurement of net income for an accounting period. However, revenue and expenses must not only be related to each other but also to the accounting period under consideration. The matching of revenue and expense items to the accounting period necessitates the acceptance of the accrual basis of accounting. The accrual basis of accounting, in contrast with the cash basis, has been adopted in order to recognize revenue and expenses in the proper accounting period. The recognition of certain revenue or expenses may be accelerated by the accrual basis of accounting whereas the recognition of other items may be deferred. The accrual or deferment of revenue or expense recognition at the end of an accounting period eliminates some of the disadvantages created by dividing the life span of a business unit into defined accounting periods. As revenue or expense recognition can be accelerated or deferred for accounting purposes, the flow of entity transactions becomes primarily a financial management factor.
**Going Concern**: That the operations of the business enterprise will continue is another required assumption in the measurement of business net income. By adopting the concept of the going concern, the accountant is not compelled to estimate forced sale or liquidation values for the assets or unexpired costs of a business entity whenever financial statements are prepared. Income determination would become a valuation process rather than a measuring process without the acceptance of the going-concern viewpoint. Thus the accountant would be a financial appraiser rather than a financial historian.

**The Cost Concept**: The accountant has been rightly called a historian. In recording, classifying, and summarizing business transactions, the accountant uses the documentary evidence of the business transactions as a basis for his work. By this process, the reports of the accountant are supported by objective, verifiable evidence in the form of business papers. Although serious limitations exist in accounting because of the observance of the cost concept, a more satisfactory approach has not been devised.

One of the limitations of accounting attributed to the cost concept is the failure of the accounting profession to recognize fluctuating price levels. In using the historical cost as a basis for accounting records and reports, the accountant is assuming a stable monetary unit which is contrary to economic reality. Another limitation of accounting which can be attributed to the cost concept is the rejection of implicit costs in the measurement of net income. Only explicit costs or costs clearly supported by business papers and for which a cash outlay was or will be required are recognized as deductions from revenue in the determination of business net income. Implicit costs, such as
the salary of an owner-manager of a proprietorship, are not acknowledged as operating expenses of the business entity. Yet in decision-making, both explicit and implicit costs should be recognized. These limitations have arisen due to the desirability of keeping accounting on an objective basis of historical cost.

Conservatism: The doctrine of conservatism has a decided influence upon the acceptance of accounting methods employed in the determination of net income. Conservatism in accounting can be simply stated as follows: Provide for all losses; anticipate no income. Although unwarranted exercises of conservatism which distort net income and shift profits from one accounting period to another cannot be condoned, a degree of conservatism as a precautionary measure is acceptable because of the human element involved in the work of the accountant.

In defining accounting as an art, the AICPA placed great emphasis upon "... the creative skill and ability with which the accountant applies his knowledge to a given problem." Whenever an error of personal judgment is quite likely, a conservative treatment of an accounting problem would be the preferred course of action.

Consistency: Consistency has an important place in accounting thought and action. The standard auditor's report accompanying certified financial statements contains an expression that the accounting principles used in the preparation of the financial statements were "applied on a basis consistent with that of the preceding year." Under the doctrine of consistency, the auditor is required to disclose not only the

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existence of material departures from previous procedures, but also the
effect of the change. This information is especially desirable in the
comparison of income statements of different accounting periods.

Full Disclosure: As an additional aid in the comparison and
analysis of financial statements, accountants observe the concept of
full disclosure in the preparation and presentation of financial data.
This concept requires that full disclosure be given to all the facts
that are required in reaching informed opinions. The existence of
many variations in accounting practices and the use of accounting state­
ments by different groups for different purposes brought forth the con­
cept of full disclosure in accounting theory.

In the analysis of financial statements, attention must be
given to the accounting methods employed in the depreciation of fixed
assets, the valuation of inventories and similar areas where the
selection and use of certain methods of accounting will have a material
effect upon the determination of net income and the statement of finan­
cial position. Therefore, whenever an alternative method is permissable,
the accountant should disclose not only the monetary amount, but also
the accounting method used in obtaining the amount shown on the financial
statement. Disclosure of the accounting methods used may be made within
the body of the financial statement or by means of an accompanying note.

In addition, full disclosure pertains to the manner in which the
financial data is presented. To contribute to the proper interpretation
of the financial statements, the accountant should exercise care in the
choice of terminology, data classifications, and the form of the
financial statements and supporting schedules.
From the foregoing, it is evident that there is hardly a phase of accounting theory that is not related to income determination. Income determination occupies a dominant position in accounting theory today; new accounting methods or procedures are either accepted or rejected in view of their propriety in the measurement process. The income statement is no longer regarded as a mere connective link between successive balance sheets. With recognition of the significance of net income and the increased emphasis upon accuracy in the determination of net income, there has been a tendency to regard the balance sheet as the connecting link between successive income statements.

Marked differences exist between the form of an income statement commonly followed for a merchandising or manufacturing enterprise and the traditional form of an income statement for a utility firm such as a power and light company. Some of these differences can be attributed to the nature of the productive operations of a utility firm whereas other distinct features have been incorporated within the income statement of a utility firm as a possible aid in the regulation of earnings. As a basis for comparison of income statements of regulated and non-regulated industries, the conventional form of an income statement for a non-regulated industry will now be examined.

Conventional Form and Content of the Income Statement

The Multiple-Step Income Statement: The form and content of income statements vary considerably. A common practice is to present the income statement in multiple-step form which normally includes sections for sales (or income from services), cost of goods sold (or expenses of providing services), operating expenses, other income and taxes. Figure 4 on page 106 illustrates a multiple-step income statement.
Figure 4

Multiple-Step Income Statement

THE ABC COMPANY

INCOME STATEMENT

For Year Ended December 31, 1961

<table>
<thead>
<tr>
<th>Revenue from sales:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross sales</td>
<td>$xxx</td>
</tr>
<tr>
<td>Less: Sales returns and allowances</td>
<td>$xxx</td>
</tr>
<tr>
<td>Sales discounts</td>
<td>$xx</td>
</tr>
<tr>
<td>Net sales</td>
<td>$xxx</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost of goods sold:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Merchandise inventory, January 1, 1961</td>
<td>$xxx</td>
</tr>
<tr>
<td>Add: Merchandise purchases</td>
<td>$xxx</td>
</tr>
<tr>
<td>Freight in</td>
<td>$xx</td>
</tr>
<tr>
<td>Delivered cost of purchases</td>
<td>$xxx</td>
</tr>
<tr>
<td>Less: Purchases returns and allowances</td>
<td>$xxx</td>
</tr>
<tr>
<td>Purchases discount</td>
<td>$xx</td>
</tr>
<tr>
<td>Merchandise available for sale</td>
<td>$xxx</td>
</tr>
<tr>
<td>Less: Merchandise inventory, December 31, 1961</td>
<td>$xx</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>$xx</td>
</tr>
<tr>
<td>Gross profit on sales</td>
<td>$xxx</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating expenses:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Selling expenses:</td>
<td></td>
</tr>
<tr>
<td>Sales salaries</td>
<td>$xxx</td>
</tr>
<tr>
<td>Advertising expense</td>
<td>$xx</td>
</tr>
<tr>
<td>Depreciation expense - Selling</td>
<td>$xx</td>
</tr>
<tr>
<td>Miscellaneous selling expenses</td>
<td>$xx</td>
</tr>
<tr>
<td>General expenses</td>
<td></td>
</tr>
<tr>
<td>Officers and office salaries</td>
<td>$xxx</td>
</tr>
<tr>
<td>Supplies expenses</td>
<td>$xx</td>
</tr>
<tr>
<td>Depreciation expense - General</td>
<td>$xx</td>
</tr>
<tr>
<td>Miscellaneous general expense</td>
<td>$xx</td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>$xx</td>
</tr>
<tr>
<td>Net profit from operations</td>
<td>$xxx</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other income and expenses:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Other income:</td>
<td></td>
</tr>
<tr>
<td>Interest income</td>
<td>$xxx</td>
</tr>
<tr>
<td>Dividend income</td>
<td>$xx</td>
</tr>
<tr>
<td>Other expenses:</td>
<td></td>
</tr>
<tr>
<td>Interest expense</td>
<td>$xx</td>
</tr>
<tr>
<td>Add: Excess of other income over other expenses</td>
<td>$xx</td>
</tr>
<tr>
<td>Net income before income taxes</td>
<td>$xxx</td>
</tr>
<tr>
<td>Less: Income taxes</td>
<td>$xx</td>
</tr>
<tr>
<td>Net income after income taxes</td>
<td>$xxx</td>
</tr>
</tbody>
</table>
Proponents of the multiple-step income statement maintain that the intermediate balances such as net sales, gross profit on sales, net profit from operations and the like are of benefit in the analysis and interpretation of the results of operations. On the other hand, the opponents of the multiple-step income statement point out that the various sectional labelings and profit designations are confusing and misleading to the reader of the financial statement. This group also objects to the implication that certain costs and expenses take precedence over others as deductions from revenue, and insist that there is no profit until all costs and expenses have been deducted.

The Single-Step Income Statement: During recent years increasing usage has been made of a single-step income statement which avoids sectional designations and intermediate balances. This form has the full support of those who object to the multiple-step income statement. A condensed form of a single-step income statement is illustrated in Figure 5 on page 108.

For managerial purposes, the considerable detail provided by the multiple-step income statement assists management in the analysis and control of operating costs and expenses. However, the simpler condensed form of the single-step income statement is probably adequate in the majority of cases for financial reporting to the general public.

A greater problem, and one which has created quite a controversy in the accounting profession, concerns the method of reporting items which do not relate solely to the accounting period under consideration, but are considered to be extraordinary, nonrecurring and unpredictable. Unusual gains and losses and corrections in profits of prior periods are
Figure 5

Single-Step Income Statement

THE ABC COMPANY

INCOME STATEMENT

For Year Ended December 31, 1961

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales</td>
<td>$xxx</td>
</tr>
<tr>
<td>Other income - interest and dividends</td>
<td>xxx</td>
</tr>
<tr>
<td>Total revenue</td>
<td>$xxx</td>
</tr>
<tr>
<td>Deduct:</td>
<td></td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>$xxx</td>
</tr>
<tr>
<td>Selling expenses</td>
<td>xxx</td>
</tr>
<tr>
<td>General expenses</td>
<td>xxx</td>
</tr>
<tr>
<td>Other expenses - interest</td>
<td>xxx</td>
</tr>
<tr>
<td>Income taxes</td>
<td>xxx</td>
</tr>
<tr>
<td>Total deductions</td>
<td>$xxx</td>
</tr>
<tr>
<td>Net income</td>
<td>$xxx</td>
</tr>
</tbody>
</table>
included in this group. Although there is general agreement that a clear
demarcation should be given to these extraordinary items, there is not
complete agreement as to how the special items should be reported on the
statements summarizing the activities of the business entity.

One method is to show the unusual and nonrecurring items on the
income statement immediately after the amount designated as net income
after taxes. A second method is to carry the charges and credits arising
from such items directly to the Earned surplus or Retained earnings
account. Under the second method of reporting, the extraordinary items
would not appear on the income statement, but would be shown on the
statement of retained earnings which is prepared to summarize the changes
in earned capital during the accounting period. Each method of reporting
extraordinary items has certain advantages and disadvantages.

The All-Inclusive Income Statement: When extraordinary items
are reported on the income statement, it is said that the income state-
ment has been prepared in accordance with the all-inclusive concept of
income determination. The advocates of the all-inclusive income state-
ments, which includes both the American Accounting Association and the
Securities and Exchange Commission, recommend the inclusion in the
income statement of all items of profit and loss recognized during the
period, whether or not they are directly related to the operations of
that period. Based on a proprietary concept of income, the all-inclusive
income statement presents the full story of the financial activities of
the business entity during the accounting period under review. Thus,
the reader of the income statement does not have to search elsewhere for
information pertaining to operations. Care should be exercised, however,
in clearly setting forth the net income after taxes based on normal
operations and in describing precisely the nature of the final figure of the income statement.

The Current Operating Performance Income Statement: The current operating performance concept of income determination has been advanced in order to emphasize the basic earning power of the business entity under normal conditions. Basing their arguments of a concept of income related to normal operations and to the accounting period, the advocates of the current operating performance income statement hold that misconceptions are likely to arise as to exactly which amount reported on an all-inclusive income statement represents the earnings for the period. In recognizing the significance attached to net income, the AICPA prefers the current operating performance statement; however, the all-inclusive statement has been termed acceptable by the AICPA in view of its recommendation by the Securities and Exchange Commission.

The principal disadvantage of the current operating performance statement is the omission of certain items of profit and loss from the determination of business income. The reader of a current operating performance income statement is compelled to consider both the income statement and the statement of retained earnings to reach an informed opinion concerning the current activities as well as the long-run earning capacity of the business entity. This disadvantage has been offset by the introduction and increasing usage of a combined statement of income and retained earnings.

The Income Statement of an Electric Power and Light Company

The income statements included in the annual financial reports of electric power and light utilities follow generally the system of
accounts as prescribed by regulatory bodies. No control is exercised by the Securities and Exchange Commission over the form of presentation of the income statements of public utilities. On this point, Regulation S-X issued by the Securities and Exchange Commission provides as follows:

A public utility company using a uniform system of accounts or a form for annual report prescribed by Federal or state authorities, or a similar system or report, shall follow the general segregation of revenues prescribed by such system or report. \(^4\)

A similar provision in Regulation 3-X applies to the segregation and reporting of expenses on the income statements of public utilities. This is another area in which the Securities and Exchange Commission has relinquished control over the financial reporting practices of public utilities. Thus, the regulatory bodies possess unlimited authority over the dissemination of income data of public utilities to the general public. This condition is quite unusual inasmuch as the basic function of the regulatory bodies is to protect the interests of the consumers whereas the Securities and Exchange Commission has as its basic purpose the protection of the interest of the investors. A conflict of interest in the performance of this dual function by the regulatory bodies would no doubt result in action by the regulatory bodies which would prove to be favorable to the consumers' interests.

The Uniform System of Accounts Effective on January 1, 1961

The income accounts included in the uniform system of accounts prescribed by the Federal Power Commission for electric power and light companies were presented on Figure 2, page 53, of this paper. The

grouping of these accounts, which became effective on January 1, 1961, would indicate that the Federal Power Commission prefers the current operating performance concept of income determination, and also recommends the presentation of a combined statement of income and earned surplus. The inclusion of the earned surplus accounts with the revenue and expense accounts is perhaps the most important change in the new system of accounts with respect to the presentation of income data.  

Sufficient time has not passed in order to evaluate the statements prepared under the new system of accounts.

The Uniform System of Accounts Effective January 1, 1937 to January 1, 1961

Under the system of accounts effective prior to 1961 which was in force when the financial statements examined in this study were prepared, the current operating performance income statement was also recommended, but the inclusion of the earned surplus accounts with the balance sheet accounts would indicate a preference for separate statements of income and earned surplus. Considerable variations, however, are to be found in the usage of terminology and the form of presentation of income statements included in the annual reports of electric power and light companies. A typical statement prepared for a diversified utility company is illustrated in Figure 6 on page 113.

The principal difference in the form of an income statement of a utility firm and the form commonly utilized in commercial accounting concerns the classification of expense items as either operating revenue deductions or income deductions. This distinction between operating

\[5\] See Appendix II, page 141, of the Uniform System of Accounts Prescribed for Public Utilities and Licensees (Class A and B).
Figure 6

Income Statement of an Electric Power and Light Utility

THE ABC UTILITY COMPANY

INCOME STATEMENT

For Year Ended December 31, 1961

<table>
<thead>
<tr>
<th>OPERATING REVENUES:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric</td>
<td>$xxx</td>
</tr>
<tr>
<td>Gas</td>
<td>xxx</td>
</tr>
<tr>
<td>Other</td>
<td>xxx</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$xxx</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPERATING REVENUE DEDUCTIONS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations</td>
<td>$xxx</td>
</tr>
<tr>
<td>Maintenance</td>
<td>xxx</td>
</tr>
<tr>
<td>Depreciation</td>
<td>xxx</td>
</tr>
<tr>
<td>Taxes, other than federal income</td>
<td>xxx</td>
</tr>
<tr>
<td>Federal income tax</td>
<td>xxx</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>xxx</td>
</tr>
</tbody>
</table>

| OPERATING INCOME           | $xxx |

| Non-operating income       | xxx |

| GROSS INCOME               | $xxx |

<table>
<thead>
<tr>
<th>INCOME DEDUCTIONS:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest on long-term debt</td>
<td>$xxx</td>
</tr>
<tr>
<td>Amortization of electric plant</td>
<td>xxx</td>
</tr>
<tr>
<td>acquisition adjustments</td>
<td></td>
</tr>
<tr>
<td>Interest charged to construction (credit)</td>
<td>(xxx)</td>
</tr>
<tr>
<td>Other deductions</td>
<td>xxx</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>xxx</td>
</tr>
</tbody>
</table>

| NET INCOME                | $xxx |
expenses, which is referred to in utility accounting as "above or below the line," is incorporated within the income statement solely for regulatory purposes. Only the operating expenses which are considered by the regulatory body to be legitimate costs of rendering service are to be included as revenue deductions, or shown "above the line." Other operating expenses which cannot be included in regulatory proceedings must be classified as income deductions, thus appearing "below the line." Individual expense items which are normally shown "below the line" are presented later in this chapter.

In a study of the annual reports to stockholders of fifty-six gas and electric utilities for the years 1957 through 1959, a joint committee of the American Gas Association - Edison Electric Institute made several assertions relating to the presentation of income which were supported by an analysis of the reports included in this study.\(^6\) The more important of these observations are summarized briefly as follows:

1. The conventional type of statement with revenues, expenses, other income and income deductions, listed in that order, was followed with only slight modification by fifty-three of the fifty-six companies in 1959. (See Figure 6, page 113.)

2. Nine companies elected to use a combined statement of income and earned surplus. However, in contrast to the recent trend in commercial accounting, increasing usage of the combined statement is not indicated as the same number of companies used this type of statement over the three-year period covered by the study.

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3. The annual reports of thirty of the fifty-six companies included in the study of the joint committee contained condensed statements of income. In all cases, this type of statement preceded the formal and certified income statement.

The condensed statement of income is illustrated in Figure 7, page 116.

In discussing the purpose of the condensed statement of income, the remarks of the joint committee are of interest to the public accounting profession. The committee stated that the form of composition

... seems to convey the fact that the Condensed State of Income represents an effort on the part of the concerned companies to present to their stockholders not only a statement that might be more readily understandable than the formal version, but also one that includes additional information pertinent to company income and expenses that might prove clarifying to stockholders. 7

Although the use of supplementary statements and diagrammatic presentations of income data is fairly common in commercial accounting, it appears that the utility companies are going somewhat farther in presenting the condensed statement of income. Also, the question remains as to whether the management of the utility companies concerned are accomplishing their objective in including a "statement of income" which differs radically from the certified statement. The average investor probably becomes confused when confronted with alternative income statements which at times are extremely difficult to reconcile. A superficial analysis of the problem indicates that little has been gained by including the condensed statement of income in the annual reports of utility companies; however, the inclusion of this type of statement undoubtedly detracts from the creditability of the certified income statement.

7 Ibid., p. 55.
Figure 7
Condensed Statement of Income of an Electric Power and Light Utility

**CONDENSED STATEMENT OF INCOME**

<table>
<thead>
<tr>
<th>We Received</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales of electricity</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Sales of gas</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>From other sources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$</td>
<td>$</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>We Paid (Out) or Set Aside</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages, salaries and employee benefits</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Gas purchased (also purchased power where significant)</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Material, supplies and other expenses</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Taxes</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Depreciation</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Interest on borrowed money</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Dividends on preferred stock</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Dividends on common stock</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Retained in the business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$</td>
<td>$</td>
</tr>
</tbody>
</table>

The basic elements involved in the determination of utility income have been presented in the foregoing pages. After this somewhat general and brief view of income determination for a utility firm, consideration will now be directed to the more immediate problem; that is, an analysis of specific areas in the determination of utility income which differs markedly from generally accepted accounting practices of a non-regulated enterprise. Principally these topics have been suggested by the executives contacted in the primary research for this paper. The topics to be considered are as follows:

1. Current practices with respect to the depreciation of utility plant.
2. Degree of application of income tax allocation principles.
3. Extraordinary losses occasioned by the abandonment of utility plant items.
4. Treatment of charitable donations.

Each of these problem areas will now be discussed.

Depreciation of Utility Plant

The authority of the Federal Power Commission in prescribing methods and rates of depreciation of utility property is expressed in Section 302 of the Federal Power Act. This section provides, in part, as follows:

The Commission may, from time to time, ascertain and determine, and by order fix, the proper and adequate rates of depreciation of the several classes of property of each licensee and public utility.8

Similar references pertaining to the depreciation of utility plant are

found throughout the publications of the Federal Power Commission; however, each of these references contains the same general language of the quoted excerpt.

Perhaps the main reason for the lack of a direct statement setting forth the views of the Federal Power Commission with respect to the methods and rates used in depreciation accounting is due to the overlapping of the jurisdictions of the Federal and state commissions in this area. The authority of the Federal Power Commission extends only to those phases of utility operations which are not covered by regulations on the state level; therefore, the Federal Power Commission prescribes rates of depreciations only when the Commission is of the opinion that discrimination exists in the allocation of plant costs in the wholesale distribution of electrical energy. Thus, the principal regulators of methods and rates of depreciation of utility plant are the respective state commissions.

Various studies indicate that the straight-line method of accruing depreciation is in general use in the utility field. In 1958, 241 out of 263 Class A and B electric utilities, or 92% of the utilities included in this classification, employed the straight-line method in apportioning the cost of utility plant in equal amounts over the estimated life of the plant. The other 8% of the utilities included in this classification used some form of an interest method (4%), retirement method (3%), or revenue method (1%). The Federal Power Commission

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reports that these diverse methods are being used less and less in favor of the much simpler straight-line method.

The general acceptance of the straight-line method of accruing depreciation in the electrical industry no doubt stems from the prescription of straight-line depreciation accounting by the majority of the state commissions. The widespread prescription of the straight-line method on the state level is summarized by the Federal Power Commission as follows:

Of the 47 commissions having power to prescribe the method of accruing depreciation, 21 have prescribed the straight line method, 11 generally prescribe it and 7 though prescribing no method state that straight line is generally used. Thus in 39 of the 47 jurisdictions straight line depreciation is in general use.10

Because of its simplicity, the straight-line method of depreciation accounting is used to a considerable extent in accounting for non-regulated enterprises. However, as long as there is a systematic and rational assignment of plant costs to the operating periods benefited by the use of the plant item, other methods of depreciation are equally acceptable. Accelerated methods, such as the sum-of-years-digits or the declining-balance, which permit recovery of larger amounts in the earlier years of the life of an asset have gained in popularity since these methods were approved for tax purposes in 1954. In many instances, a decreasing charge for depreciation will actually achieve a more equitable allocation of plant costs. A decline in the productivity of an asset or an increase in the cost of repairs and maintenance may justify the use of an accelerated method of depreciation accounting.

Two important questions arise in evaluating depreciation accounting in the utility field. First, the question arises as to whether the regulatory commissions should have the authority to prescribe methods and rates of depreciation. The affirmative answer is generally agreed upon inasmuch as depreciation is one of the major costs of rendering a public service. Only by an exercise of control over the operating costs can the regulatory commissions properly perform their functions. But it should be emphasized that some of the commissions do not have this authority while other commissions have lacked the funds or the will to exercise control over the depreciation practices of utility companies. In considering this situation, Bonbright comments as follows:

Not all commissions, however, have made clear what methods of depreciation accounting they deem acceptable; and in this event they are under at least moral pressure to accept the method (if any) consistently and carefully applied by the company in question, so long as it falls within the limits of recognized good practice.\(^{11}\)

The second question concerns the prescription and general acceptance of straight-line depreciation for accounting as well as for rate-making purposes in the public utility field. Paton states that the virtues of straight-line depreciation are not so clear as to justify the use of this method by all utilities. According to Paton,

Management should be allowed some choice in the matter. If a utility prefers the interest method, or some systematic activity or production plan, or a reasonable accelerated depreciation procedure, it would seem to be unwise for the regulatory authority to insist on a rigid straight-line accrual.\(^{12}\)

\(^{11}\)Bonbright, op. cit., p. 212.

\(^{12}\)Paton and Paton, op. cit., p. 398.
One of the factors normally listed as justification for the use of straight-line depreciation in regulatory accounting is the assignment of uniform annual amounts for depreciation over the lifetime of a fixed asset. On the surface it would then appear that the consumers of the different years would be charged equal amounts for the consumption of capital. Such is not the case, however, as the utilities are compensated both for a return of capital (the annual depreciation charge) and a return on capital (the rate of return). With the straight-line method, the total cost for the use of a fixed asset becomes smaller and smaller as the asset approaches retirement. A complicated interest procedure could be used to equalize the total annual charges for the use of a fixed asset, but the desirability of such equalization from the standpoint of the consumers could be questioned. The economic implications of the diverse methods of computing depreciation from the consumers' viewpoints are intense.

Other factors are partially responsible for the current use of straight-line depreciation in regulatory accounting. Straight-line depreciation accounting has had widespread use in general accounting for many years and only in the past decade has much use been made of other methods of depreciation. The approval of accelerated methods for tax purposes led to the official sanction of these methods by the AICPA in 1954. Mention has been made previously of the difficulty of giving recognition to evolving and changing views in regulated accounting. The coming years may witness a swing from an almost complete use of straight-line depreciation in utility accounting to

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13 See Accounting Research Bulletin No. 44 issued by the American Institute of Certified Public Accountants.
an acceptance and use of accelerated methods. As will be discussed subsequently, a tax allocation problem exists because utilities have elected to take advantage of accelerated depreciation for tax purposes while adhering to straight-line accruals for financial reporting purposes. The lack of a satisfactory solution to the tax allocation issue could strengthen the case for the use of accelerated depreciation for accounting and regulatory purposes.

**Tax Allocation Principles**

Without question the most significant problem currently confronting utility firms relates to accelerated depreciation as permitted by the *Internal Revenue Code* of 1954, and the related accounting and rate-making aspects. This issue has been before the commissions and courts in a number of states, and as might be expected, there is a wide variety of treatment for accounting and rate-making purposes.

Section 167 of the *Internal Revenue Code* of 1954 provides for the use of both the declining-balance and the sum-of-the-years-digits methods of computing depreciation in the determination of taxable income. These liberalized methods were approved for tax purposes primarily as a stimulus to additional capital investment in the business world. Since the subsequent approval of liberalized depreciation for accounting purposes, many industrial concerns have elected to use the liberalized methods for accounting as well as for income tax purposes. Other concerns have elected to continue to use straight-line depreciation for financial reporting, but have taken advantage of the larger deductions for depreciation for tax purposes. The resulting discrepancy between accounting and taxable income gives rise to an allocation of income taxes among accounting periods. This inter-period allocation of income taxes
is necessary to comply with the basic principle of matching costs and revenues.

First, it should be understood that inter-period allocation of income taxes is not a unique problem of the utility industry, although the problem is more complicated in utility accounting due to the use of accounting data for rate-making purposes. Allocation of taxes has warranted and received a considerable amount of attention during recent years and a vast body of literature pertaining thereto has accumulated. Also, it should be understood that principles of allocation of income taxes may have to be employed whenever there is a difference in the calculation of accounting and taxable income; however, this discussion will be restricted to the allocation of taxes in utility accounting brought about by the use of accelerated depreciation for tax purposes and straight-line accruals for financial reporting and rate making.

In approving the use of accelerated depreciation methods as generally accepted methods of accruing depreciation charges, the AICPA anticipated that some concerns would probably continue to use straight-line depreciation in the determination of accounting income but would deduct the larger amounts in accordance with tax regulations for tax purposes. An attempt was made by the AICPA to provide for this possibility in the original research bulletin on the subject of accelerated depreciation. Quoting from Research Bulletin No. 44, issued by the AICPA in October, 1954, the Committee on Accounting Procedure of the AICPA stated that:

\[\text{For a comprehensive presentation of allocation of income taxes, see Arthur Andersen & Co., Accounting for Income Taxes (Chicago: Arthur Andersen & Co., 1961).}\]
There may be situations in which the declining-balance method is adopted for tax purposes but other appropriate methods are followed for financial accounting purposes. In such cases it may be that accounting recognition should be given to deferred income taxes.

Actually, the concept of matching costs and revenues requires that accounting recognition must be given to deferred income taxes. In order to have a complete and proper matching of costs and revenues, the income statement should be charged for the income taxes applicable to the net income reported thereon. Since this amount may be more or less than the current tax liability disclosed on the balance sheet, the recognition of either deferred tax charges or credits may become necessary.

The use of straight-line depreciation for accounting purposes with the concurrent use of accelerated depreciation for tax purposes results in an excess of accounting income over taxable income during the early years of the life of an asset. During this period of time, the income tax expense shown on the income statement (based on accounting profit) will exceed the amount of income taxes currently payable. Therefore, during the early years of the life of the asset, the income tax charge appearing on the income statement must be subdivided when reported on the balance sheet as follows: (1) the amount currently payable (the tax liability based on taxable income), and (2) a deferred tax credit. In reality, the recognition of the deferred tax credits during the years in which the accelerated depreciation exceeds the straight-line depreciation charges amounts to an accumulation of income taxes payable in future years. The accelerated recovery of the cost of the asset for tax purposes will eventually create an excess of taxable income over accounting income. During the latter years of the life of
the asset, the tax currently payable will be more than the tax expense charged on the income statement. The excess of the current tax liability over the tax expense is recognized as a current liability on the balance sheet by a periodic transfer from the deferred tax credit account. In other words, the income tax accumulated in prior periods is now payable. The use of accelerated depreciation for tax purposes then reduces the immediate tax payments but increases the future tax payments. Depreciation deductions for both accounting and tax purposes are limited to the cost of the asset; hence, there is no permanent reduction in taxes through the use of accelerated depreciation, but merely a deferral of taxes until later years. The application of income tax allocation principles, also known as "normalization" or "tax-effect" accounting, is appropriate in order to properly match costs and revenues on an accrual basis over the life of an asset when different methods of depreciation are used for accounting and tax purposes.

Another view advanced for the treatment of deferred income taxes is known as the "flow-through" theory.¹⁵ This theory is popular in utility accounting and is based on the premise of a permanent tax saving rather than a deferral of taxes. The proponents of the flow-through theory maintain that the declining depreciation charges on old assets will be offset in future years by equal or greater depreciation charges with respect to subsequent property additions. Moreover, the increased taxes during the latter service years of one asset will be offset by the reduced taxes during the early service years of another asset. Although such offsetting constitutes unsound accounting, it

would also appear that the required assumptions would invalidate the flow-through theory. A permanent tax saving would necessitate a continuous growth at a stable or an increasing rate; in addition, accelerated methods would have to be employed in computing depreciation charges on additional capital investments for tax purposes.

With the flow-through theory, only the taxes currently payable are reported on the financial statements. The tax benefits obtained by the use of accelerated depreciation are permitted to flow through to the income statement, thus increasing the net income and retained earnings. The adoption of this approach in accounting for income taxes has been based on regulatory motives. Some commissions have taken the position that the tax deferrals under accelerated depreciation constitute a saving to the utility and, therefore, should be passed on to the consumers in the form of lower rates. The flow-through theory of deferred income taxes received at least partial recognition by the AICPA in a revision of Bulletin No. 44 in July of 1958. The support for the flow-through theory is found in paragraph 8 of said bulletin which follows:

Many regulatory authorities permit recognition of deferred income taxes for accounting and/or rate-making purposes, whereas some do not. The committee believes that they should permit the recognition of deferred income taxes for both purposes. However, where charges for deferred income taxes are not allowed for rate-making purposes, accounting recognition need not be given to the deferment of taxes if it may reasonably be expected that increased future income taxes, resulting from the earlier deduction of declining-balance depreciation for income-tax purposes only, will be allowed in future rate determinations.

This paragraph has been cited extensively as an example of special accounting principles being adopted for regulated industries.

The wisdom of the Committee on Accounting Procedure of the AICPA in making an exception to the recognition of deferred income taxes in
case of public utilities is questionable. An executive of a public utility firm has stated that fifteen of the twenty-one members of the Committee at the time of the issuance of Bulletin No. 44 (Revised) were members of public accounting firms which, in the opinion of the executive, had done little public utility accounting work. Although some members of the Committee objected to the exception made in paragraph 8, the bulletin was adopted and presently affords public accountants some protection where regulatory authorities have required improper accounting for income taxes.

The adoption of flow-through accounting for deferred income taxes violates the matching process and fails to recognize the accrual of taxes payable in future years. From a regulatory viewpoint, the refusal of certain regulatory commissions to acknowledge as an operating expense a provision for taxes to be paid in future years shifts a part of the income tax expense from present consumers to future consumers. Also, and this is both an accounting and a regulatory issue, there is no common understanding or objective standard upon which to base an "expectation" that increased future taxes will be allowed in future rate determinations as provided in paragraph 8 of Bulletin No. 44 (Revised). The prevailing practice in this respect is set forth by Arthur Andersen & Company as follows:

Evidently most accountants simply assume that if, for rate purposes, the regulatory commissions now follow the practice of allowing only the income taxes paid, future commissions

16 Arthur Andersen & Co., The AICPA Injunction Case, p. 70.
17 Arthur Andersen & Co., Accounting for Income Taxes, p. 81.
will continue to do this indefinitely, and thus that it is reasonable to expect that the increased taxes will be allowed in the future.  

The firm of Arthur Andersen & Company is highly critical of this practice and states that current provision should be made for deferred income taxes in the absence of a controlling court decision. In any case, the expectation of an allowance for increased income taxes in future rate determinations is a legal and not an accounting question and should be based on competent legal counsel.  

The basis for an expectation of an allowance for increased income taxes in future rate determinations has also come under attack by various commissions and courts. In the Union Electric Company case, the Illinois Commerce Commission stated its opinion as follows:

It appears to this Commission that it would be merely a hopeful guess by a utility that a commission some time in the future would allow for rate making the payment of income taxes in excess of otherwise normal income taxes resulting from savings in income taxes in earlier years, which may have been, in part or in whole, distributed as dividends. This Commission does not believe that it may reasonably be expected that such increased future income taxes will be allowed in future rate determinations.

Nevertheless, regulatory commissions in a number of other states advocate the flow-through theory and recognize only the income taxes actually paid as operating expenses.

A count-down by the various state commissions with respect to "tax-effect" or "flow-through" would be almost meaningless due to the

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18 Arthur Andersen & Co., Accounting and Reporting Problems of the Accounting Profession, p. 43.
19 Ibid., p. 44.
constant shifting of opinion and the wide variety of treatment to be found in the various states. In summary, however, of the states which have taken a position on this matter, about two-thirds have approved some form of normalization whereas the other third have prescribed the flow-through theory. The uniform system of accounts of the Federal Power Commission provides for the recognition of deferred income taxes but puts it on an optional basis because of the conflict with the state commissions. The alarming aspect of this situation is the existence of this diversity in an industry in which the uniform system of accounts was designed to achieve uniformity.

Capitalization of Retirement Losses

Another unique practice of utility income determination concerns the capitalization of losses occasioned by the premature retirement of utility property items. Accounts are included within the uniform system of accounts which are to be used upon the approval of the respective commissions for the recording and the subsequent amortization of extraordinary property losses brought about by obsolescence or other special causes. According to Paton,

This doctrine is based upon the conception of a utility enterprise as a business which as a result of rate restrictions is not in a position to take advantage of

\[ \text{\textsuperscript{21}} \text{Walter R. Staub, Inherent Weaknesses in Present Day Public Utility Accounting, p. 11.} \]

\[ \text{\textsuperscript{22}} \text{Federal Power Commission, Uniform System of Accounts Prescribed for Public Utilities and Licensees (Class A and Class B), p. 41.} \]

\[ \text{\textsuperscript{23}} \text{See Account 182, Figure 1, page 49 and Account 407, Figure 2, page 53 of this paper.} \]
speculative opportunities and hence, in fairness, must be guarded against unusual losses.²⁴

Although this practice is a departure from generally accepted accounting principles, the capitalization of such retirement losses appears justified inasmuch as the utility firm is permitted to report the amortization of these losses "above the line" on the income statement. Therefore, from a going-concern viewpoint, the extraordinary property loss represents an asset which is to be charged off against future revenue.

Charitable Donations

The most frequently used example of an expense item which most commissions require to be reported "below the line" on the income statement is donations for charitable, social, or community welfare purposes. In a letter by Arthur Andersen and Company to the Federal Power Commission at the time of the revision of the uniform system of accounts, the argument for the inclusion of donations as operating expenses rather than income deductions was presented as follows:

Public utility corporations have civic and community responsibilities as do other corporations and citizens. The cost of meeting these responsibilities by payments for charitable and community purposes is appropriately an operating expense, not an income deduction. Accordingly, an operating expense account should be provided for such donations.

The revised system, however, requires that expenditures of this nature be lodged in Account 426 - Other income deductions. Here again, there is a divergence of opinion on the state level which affects the comparability of reports within the industry. Undoubtedly the accounting

classification of donations is being used as a tool in an attempt to gain recognition of donations as an operating expense for rate-making purposes.
Numerous differences between accounting practices of a non-regulated enterprise and those practices which might be required in accounting for an electric power and light utility firm have been set forth in the preceding pages of this dissertation. Other no less important exceptions could have been cited, but adequate evidence was presented to substantiate a charge that regulatory authorities, with the support of the courts of this country, have continually prescribed accounting procedures to be followed by electric utilities as well as other firms "affected with the public interest" which are contrary to generally accepted accounting principles. The attitude of the commissions and courts towards these generally accepted accounting principles is reflected in a recent decision of the Federal Power Commission in which the examiner remarked:

The Uniform System of Accounts, however, is designed for effective regulation. The accounting requirements are, of course, designed to achieve consistency and equality of treatment as between regulated companies; but regulatory accounting is not primarily concerned with general principles or corporate accounting, but rather with what must be done to comply with the statute administered.1

Surely this view of regulatory accounting is detrimental to the operations of public utility firms and has a direct effect on the rates charged to


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the ultimate consumers. The influence of regulatory accounting affects the utility firms from the standpoint of both costs and revenues.

The utilities, like the non-regulated industries of the United States, are operating in a capitalistic society whereby the economic law of supply and demand largely determines the cost of the labor, capital and other factors of production. The mere declaration by a regulatory commission that a certain procedure be followed in accounting for the operations of a utility firm influences the competitive position of the utility firm in the acquisition of the necessary factors of production. Also, since the primary purpose of regulation is the control of earnings, the prescribed accounting treatment of a given item will most likely be the one which will result in the lowest possible rates. The prescription of "flow-through" accounting for tax deferrals resulting from the use of accelerated depreciation serves as a good example. As previously stated, the adoption of "flow-through" accounting for deferred taxes reduces the tax charge and thus enhances the reported earnings on the operating statement of the public utility. Basing their actions on the reported earnings, the various users of the financial statements would react in different ways, depending upon their economic position relative to the utility firm. Aside from the regulatory aspects, labor groups might demand higher wages and the investors would no doubt expect larger dividend distributions. And all of this simply because the utility firm was compelled to follow prescribed procedures which were clearly contrary to generally accepted accounting principles. The conclusion is therefore reached that accounting reports and statements which are based upon prescribed procedures of a regulatory commission cannot be fair and informative to all users of the financial statements.
The Development of Accounting Practices

In the early days of accounting in the United States, accounting rules and practices tended to develop within the individual companies and therefore reflected the needs and desires of management. Gradually, the accounting profession recognized that these conditions did not permit adequate and truthful accounting to the growing number of users of the financial reports and statements. Thus, the limitations and weaknesses of the development of accounting practices within the various companies led to the formulation of accounting practices independently by those who had no personal interest in the results they produced. The activities of the American Institute of Certified Public Accountants, the American Accounting Association, and the Securities and Exchange Commission were important in this respect.

Uniform systems of accounts in the regulated industries were set forth prior to the development of "generally accepted principles of accounting" as the phrase is used today. Regulatory commissions realized that the regulatory process could not function unless a standardized accounting procedure was established for all companies within a particular jurisdiction. But this standardized procedure has created differences in accounting for the regulated and non-regulated industries as well as differences in accounting for the individual companies within a particular regulated industry. No one can seriously question the right of a commission to determine the accounts and system to be used in the accounting function; however, at the same time, the regulatory commission should not prescribe the principles and methods to be used in reporting to the general public. This condition presently exists.
Accounting principles and standards in the regulated industries, as in the non-regulated industries, should be established independently in order that the reports and statements prepared in the accounting process will be fair and informative to the many users of the financial data. In discussing this issue, a well-known public accountant attacked the system of regulation of earnings of public utilities as follows:

The system of regulation under which the same regulatory agency which is setting prices is also establishing the accounting practices and standards that ultimately are reflected in those prices is not a sound one. Accounting principles and standards should be established independently so that they and the results they show can be used for all purposes. Accounting practices must be such that they will provide fair and reliable information and data to the extent that is necessary in the rate-making process. Sound accounting practices must precede rate making; they cannot merely augment it or concur in it. It is circular reasoning to say that it is good accounting because it follows the rate-making theories and then to turn around and set rates based upon that accounting.

The assertions of the preceding quotation appear to be logical and fully supportable. In order for the accounting records of the electric power and light companies to be responsive to the needs of the public, the accounting profession must adopt a more positive attitude in the development of accounting practices in this regulated industry.
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VITA

James P. Modisette was born in the Marysville community near Magnolia, Arkansas, on December 6, 1931, the son of Clarence J. and Lillie McCall Modisette. He was graduated from Mt. Holly High School, Mt. Holly, Arkansas, in May, 1949, having been named salutatorian of his graduating class.

He worked in the oil fields of South Arkansas until January, 1950, when he began a bookkeeping course at Green's Business School in El Dorado, Arkansas. In July, 1950, he accepted employment as a bookkeeper with Martin Motor Company, the Packard agency in El Dorado. In April, 1951, he was named a field office manager for Fagan Electric Company, Inc. of Little Rock, Arkansas. Until he entered the U. S. Army in February, 1953, he was assigned to construction projects at Barksdale Air Force Base, Shreveport, Louisiana, and aluminum plants at Bauxite and Arkadelphia, Arkansas.

Upon his release from the service, he entered Southern State College at Magnolia, Arkansas, in September, 1954, and received the Bachelor of Science degree with honors in May, 1957. He was awarded a non-service fellowship at the University of Mississippi for a continuation of his study of accountancy on the graduate level during the school year 1957 - 1958. In May, 1958, he received the Master of Business Administration degree from the University of Mississippi.
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He accepted a teaching assistantship at Louisiana State University and began working on his doctorate in accounting in September, 1958. Having completed all requirements for the Doctor of Philosophy degree except the dissertation, he accepted a position in September, 1960, as Assistant Professor of Accounting at Northeast Louisiana State College in Monroe, Louisiana, a position which he presently holds.

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EXAMINATION AND THESIS REPORT

Candidate:  
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Major Field:  
Accounting

Title of Thesis: An Evaluation of Current Accounting Practices in the Privately Owned Electric Power and Light Industry

Approved:

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R. H. Van Vechten
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EXAMINING COMMITTEE:

[Signatures]

Date of Examination:

July 20, 1962