Statement of Financial Accounting Standards No. 2

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Accounting for Research and Development Costs

October 1974

Financial Accounting Standards Board
of the Financial Accounting Foundation
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FAS 2: Accounting for Research and Development Costs

INTRODUCTION

1. This Statement establishes standards of financial accounting and reporting for research and development costs with the objectives of reducing the number of alternative accounting and reporting practices presently followed and providing useful financial information about research and development costs. This Statement specifies:

a. Those activities that shall be identified as research and development for financial accounting and reporting purposes.
b. The elements of costs that shall be identified with research and development activities.
c. The accounting for research and development costs.
d. The financial statement disclosures related to research and development costs.

2. Accounting for the costs of research and development activities conducted for others under a contractual arrangement is a part of accounting for contracts in general and is beyond the scope of this Statement. Indirect costs that are specifically reimbursable under the terms of a contract are also excluded from this Statement.

3. This Statement does not apply to activities that are unique to enterprises in the extractive industries, such as prospecting, acquisition of mineral rights, exploration, drilling, mining, and related mineral development. It does apply, however, to research and development activities of enterprises in the extractive industries that are comparable in nature to research and development activities of other enterprises, such as development or improvement of processes and techniques including those employed in exploration, drilling, and extraction.

4. *APB Opinion No. 17*, "Intangible Assets," is hereby amended to exclude from its scope those research and development costs encompassed by this Statement.

5. Paragraph 13 of *APB Opinion No. 22*, "Disclosure of Accounting Policies," is amended to delete "research and development costs (including basis for amortization)" as an example of disclosure "commonly required" with respect to accounting policies.

6. Standards of financial accounting and reporting for research and development costs are set

forth in paragraphs 7-16. The basis for the Board's conclusions, as well as alternatives considered by the Board and reasons for their rejection, are discussed in Appendix B to this Statement. Background information is presented in Appendix A.

STANDARDS OF FINANCIAL ACCOUNTING AND REPORTING

Activities Constituting Research and Development

7. Paragraphs 8-10 set forth broad guidelines as to the activities that shall be classified as research and development.

8. For purposes of this Statement, research and development is defined as follows:

a. *Research* is planned search or critical investigation aimed at discovery of new knowledge with the hope that such knowledge will be useful in developing a new product or service (hereinafter "product") or a new process or technique (hereinafter "process") or in bringing about a significant improvement to an existing product or process.
b. *Development* is the translation of research findings or other knowledge into a plan or design for a new product or process or for a significant improvement to an existing product or process whether intended for sale or use. It includes the conceptual formulation, design, and testing of product alternatives, construction of prototypes, and operation of pilot plants. It does not include routine or periodic alterations to existing products, production lines, manufacturing processes, and other on-going operations even though those alterations may represent improvements and it does not include market research or market testing activities.

9. The following are examples of activities that typically would be included in research and development in accordance with paragraph 8 (unless conducted for others under a contractual arrangement—see paragraph 2):

a. Laboratory research aimed at discovery of new knowledge.
b. Searching for applications of new research findings or other knowledge.
c. Conceptual formulation and design of possible product or process alternatives.
d. Testing in search for or evaluation of product or process alternatives.
e. Modification of the formulation or design of a product or process.
f. Design, construction, and testing of pre-production prototypes and models.
g. Design of tools, jigs, molds, and dies involving new technology.
h. Design, construction, and operation of a pilot plant that is not of a scale economically feasible to the enterprise for commercial production.
i. Engineering activity required to advance the design of a product to the point that it meets specific functional and economic requirements and is ready for manufacture.

10. The following are examples of activities that typically would be excluded from research and development in accordance with paragraph 8:

a. Engineering follow-through in an early phase of commercial production.
b. Quality control during commercial production including routine testing of products.
c. Trouble-shooting in connection with break-downs during commercial production.
d. Routine, on-going efforts to refine, enrich, or otherwise improve upon the qualities of an existing product.
e. Adaptation of an existing capability to a particular requirement or customer's need as part of a continuing commercial activity.
f. Seasonal or other periodic design changes to existing products.
g. Routine design of tools, jigs, molds, and dies.
h. Activity, including design and construction engineering, related to the construction, relocation, rearrangement, or start-up of facilities or equipment other than (1) pilot plants (see paragraph 9(h)) and (2) facilities or equipment whose sole use is for a particular research and development project (see paragraph 11(a)).
i. Legal work in connection with patent applications or litigation, and the sale or licensing of patents.

Elements of Costs to Be Identified with Research and Development Activities

11. Elements of costs shall be identified with research and development activities as follows:

a. *Materials, equipment, and facilities*. The costs of materials (whether from the enterprise's normal inventory or acquired specially for research and development activities) and equipment or facilities that are acquired or constructed for research and development activities and that have alternative future uses (in research and development projects or otherwise) shall be capitalized as tangible assets when acquired or constructed. The cost of such materials consumed in research and development activities and the depreciation of such equipment or facilities used in those activities are research and development costs. However, the costs of materials, equipment, or facilities that are acquired or constructed for a particular research and development project and that have no alternative future uses (in other research and development projects or otherwise) and therefore no separate economic values are research and development costs at the time the costs are incurred.
b. *Personnel.* Salaries, wages, and other related costs of personnel engaged in research and development activities shall be included in research and development costs.
c. *Intangibles purchased from others. The costs of intangibles that are purchased from others for use in research and development activities and that have alternative future uses (in research and development projects or otherwise) shall be capitalized and amortized as intangible assets in accordance with APB Opinion No. 17.* The amortization of those intangible assets used in research and development activities is a research and development cost. However, the costs of intangibles that are purchased from others for a particular

research and development project and that have no alternative future uses (in other research and development projects or otherwise) and therefore no separate economic values are research and development costs at the time the costs are incurred.

d. *Contract services*. The costs of services performed by others in connection with the research and development activities of an enterprise, including research and development conducted by others in behalf of the enterprise, shall be included in research and development costs.

e. *Indirect costs*. Research and development costs shall include a reasonable allocation of indirect costs. However, general and administrative costs that are not clearly related to research and development activities shall not be included as research and development costs.

Accounting for Research and Development Costs

12. All research and development costs encompassed by this Statement shall be charged to expense when incurred.

Disclosure

13. Disclosure shall be made in the financial statements of the total research and development costs charged to expense in each period for which an income statement is presented.

14. A government-regulated enterprise that defers research and development costs for financial accounting purposes in accordance with the Addendum to *APB Opinion No. 2*, "Accounting for the 'Investment Credit,'" shall disclose the following additional information about its research and development costs:

a. Accounting policy, including basis for amortization.
b. Total research and development costs incurred in each period for which an income statement is presented and the amount of those costs that has been capitalized or deferred in each period.

Effective Date and Transition

15. This Statement shall be effective for fiscal years beginning on or after January 1, 1975, although earlier application is encouraged. The requirement of paragraph 12 that research and development costs be charged to expense when incurred shall be applied retroactively by prior period adjustment (described in paragraphs 18 and 26 of *APB Opinion No. 9*, "Reporting the Results of Operations"). When financial statements for periods before the effective date or financial summaries or other data derived therefrom are presented, they shall be restated to reflect the prior period adjustment. The prior period adjustment shall recognize any related income tax effect. The nature of a restatement and its effect on income before extraordinary items, net income, and related per share amounts for each period presented shall be disclosed in the period of change.

16. The disclosures specified in paragraphs 13-14 are encouraged but not required for fiscal periods prior to the effective date of this Statement. If disclosures for those earlier periods are made, amounts shall be based to the extent practicable on the guidelines in paragraphs 8-11 of this Statement for identifying research and development activities and costs.

The provisions of this Statement need not be applied to immaterial items.

This Statement was adopted by the unanimous vote of the seven members of the Financial Accounting Standards Board:

Marshall S. Armstrong, *Chairman*
Donald J. Kirk
Arthur L. Litke
Robert E. Mays
John W. Queenan
Walter Schuetze
Robert T. Sprouse

Appendix A: BACKGROUND INFORMATION

17. Expenditures for research and development constitute a significant element of the United States economy and are vital for its growth. Based on statistics for research and development as defined by the National Science Foundation (see paragraph 25), total expenditures were over $30 billion in 1973, approximately two-thirds of which was spent for research and development conducted by business enterprises and the balance for research and development conducted by the government, universities and colleges, and other organizations.

18. In recognition of the significance of research and development and the alternative accounting and reporting practices presently followed for research and development costs, in April 1973 the FASB placed on its technical agenda a project on "Accounting for Research and Development and Similar Costs." The scope of the project encompassed accounting and reporting by companies in the development stage.

19. A task force of 16 persons from industry, government, public accounting, the financial community, and academe was appointed in July 1973 to provide counsel to the Board in preparing a Discussion Memorandum analyzing issues related to the project.

20. In February 1973 the AICPA published *Accounting Research Study No. 14,* "Accounting for Research and Development Expenditures." In view of the availability of that study and other published research studies and articles, which are cited in Appendix B and in the Discussion

Memorandum, the FASB did not undertake a major research effort for the project. The FASB staff interviewed a limited number of selected financial analysts and commercial bankers and reviewed a substantial number of published financial statements.

21. The Board issued the Discussion Memorandum on December 28, 1973, and held a public hearing on the subject on March 15, 1974. The Board received 74 position papers, letters of comment, and outlines of oral presentations in connection with the public hearing and heard 14 oral presentations at the hearing.

22. In its deliberations following the hearing, the Board concluded that the initial Statement of Financial Accounting Standards resulting from the project should address solely accounting for research and development costs. An Exposure Draft of a proposed Statement on "Accounting for Research and Development Costs" was issued on June 5, 1974. The Board received 168 letters of comment on the Exposure Draft.

Appendix B: BASIS FOR CONCLUSIONS

23. This Appendix discusses factors deemed significant by members of the Board in reaching the conclusions in this Statement, including the various alternatives considered and reasons for accepting some and rejecting others.

ACTIVITIES CONSTITUTING RESEARCH AND DEVELOPMENT

24. The guidelines in paragraphs 8-10 for activities that should be identified as research and development are designed to accommodate a wide variety of research and development activities. Adherence to those guidelines should result in a reasonable degree of comparability. Differences among enterprises and among industries are so great that a detailed prescription of the activities and related costs includable in research and development, either for all companies or on an industry-by-industry basis, is not a realistic undertaking for the FASB.

25. The Board began its consideration of a definition of research and development with the following definition by the National Science Foundation (NSF):[1]

> *Research and development*—Basic and applied research in the sciences and engineering and the design and development of prototypes and processes. This definition excludes quality control, routine product testing, market research, sales promotion, sales service, research in the social sciences or psychology, and other nontechnological activities or technical services.

26. The NSF further classifies research and development activities by type, as follows:[2]

> *Basic research*—Original investigations for the advancement of scientific knowledge not having specific commercial objectives, although such investigations may be in fields of present or potential interest to the reporting company.
>
> *Applied research*—Investigations directed to the discovery of new scientific knowledge having specific commercial objectives with respect to products or processes. This definition differs from that of basic research chiefly in terms of the objectives of the reporting company.
>
> *Development*—Technical activities of a nonroutine nature concerned with translating research findings or other scientific knowledge into products or processes. [Development] does not include routine technical services to customers or other activities excluded from . . . research and development.

27. The NSF definition has the advantage of being relatively widely used and understood. However, it is oriented primarily to research in the physical and biological sciences and excludes research in the social sciences.

28. Respondents to the Discussion Memorandum recommended modifications of the NSF definition as well as various other definitions which were generally similar to or broader than the NSF definition. The Board agreed that a broad definition including research and development activities in the social sciences such as those conducted by service-type business enterprises is appropriate for financial accounting and reporting purposes. Accordingly, the definition in paragraph 8 has been adopted.

29. The Exposure Draft had included research and development activities conducted for others under a contractual arrangement within the definition of research and development and had proposed that all research and development costs not directly reimbursable by others be charged to expense when incurred. Some respondents to the Exposure Draft contended that costs incurred in research and development activities conducted for others under a contractual arrangement should continue to be accounted for in accordance with financial accounting standards for contracts in general rather than as research and development costs. The Board agrees with this view and the change is reflected in paragraph 2.

30. The examples in paragraphs 9-10 incorporate certain changes, many of which were recommended by respondents to the Exposure Draft. The Board believes that those paragraphs as changed more clearly reflect its intent regarding the inclusion or exclusion of particular types of activities within the definition of research and development.

31. Several respondents to the Exposure Draft raised questions about the inclusion or exclusion of the development of various types of computer software within the definition of research and development. Computer software is developed for many and diverse uses. Accordingly, in each case the nature of the activity for which the software is being developed should be considered in relation to the guidelines in paragraphs 8-10 to determine whether

software costs should be included or excluded. For example, efforts to develop a new or higher level of computer software capability intended for sale (but not under a contractual arrangement) would be a research and development activity encompassed by this Statement.

ELEMENTS OF COSTS TO BE IDENTIFIED WITH RESEARCH AND DEVELOPMENT ACTIVITIES

32. To achieve a reasonable degree of comparability among enterprises, the Board concluded that broad guidelines are appropriate to identify the elements of costs that should be included as research and development. Those guidelines are in paragraph 11.

33. Consideration was given to the alternative that the costs of materials, equipment, or facilities that are acquired or constructed for a particular research and development project and that have no alternative future uses (in other research and development projects or otherwise) be apportioned over the life of the project rather than treated as research and development costs when incurred. The Board reasoned, however, that if materials, equipment, or facilities are of such a specialized nature that they have no alternative future uses, even in another research and development project, those materials, equipment, or facilities have no separate economic values to distinguish them from other types of costs such as salaries and wages incurred in a particular project. Accordingly, all costs of those materials, equipment, and facilities should be treated as research and development costs when incurred.

34. Paragraph 11(c) reflects certain changes from the Exposure Draft to treat the costs of intangibles purchased from others in a manner similar to that in paragraph 11(a) for the costs of materials, equipment, or facilities. Paragraph 11(c) is not intended to alter the conclusions in paragraphs 87-88 of APB *Opinion No. 16*, "Business Combinations," regarding allocation of cost to assets acquired in a business combination accounted for by the purchase method.

35. The conclusion that general and administrative costs not be allocated to research and development activities (unless clearly related) conforms to present accounting practice, which generally treats such costs as expenses when incurred.

36. One question in the Discussion Memorandum was whether interest or other cost of capital should be allocated to research and development activities. At present, interest or other cost of capital generally is not allocated to the cost of assets or specific activities for financial accounting purposes. The Board believes that allocation of interest or other cost of capital to research and development activities is part of a broader question beyond the scope of this Statement.

ACCOUNTING FOR RESEARCH AND DEVELOPMENT COSTS

37. The Board considered four alternative methods of accounting at the time research and development costs are incurred:

a. Charge all costs to expense when incurred.
b. Capitalize all costs when incurred.
c. Capitalize costs when incurred if specified conditions are fulfilled and charge all other costs to expense.
d. Accumulate all costs in a special category until the existence of future benefits can be determined.

38. In concluding that all research and development costs be charged to expense when incurred (see paragraph 12), Board members considered the factors discussed in paragraphs 39-59. Individual Board members gave greater weight to some factors than to others.

Uncertainty of Future Benefits

39. There is normally a high degree of uncertainty about the future benefits of individual research and development projects, although the element of uncertainty may diminish as a project progresses. Estimates of the rate of success of research and development projects vary markedly—depending in part on how narrowly one defines a "project" and how one defines "success"—but all such estimates indicate a high failure rate. For example, one study of a number of industries found that an average of less than 2 percent of new product ideas and less than 15 percent of product development projects were commercially successful.[3]

40. Even after a project has passed beyond the research and development stage, and a new or improved product or process is being marketed or used, the failure rate is high. Estimates of new product failures range from 30 percent to 90 percent, depending on the definition of failure used.[4] One study concludes that "for about every three products emerging from research and development departments as technical successes, there is an average of only one commercial success." [5] That study goes on to say that "of all the dollars of new product expense, almost three-fourths go to unsuccessful products; about two-thirds of these . . . dollars are in the 'development stage.'" [6]

Lack of Causal Relationship between Expenditures and Benefits

41. A direct relationship between research and development costs and specific future revenue generally has not been demonstrated, even with the benefit of hindsight. For example, three empirical research studies, which focus on companies in industries intensively involved in research and development activities, generally failed to find a significant correlation between research and development expenditures and increased future benefits as measured by subsequent sales,[7] earnings,[8] or share of industry sales.[9]

Accounting Recognition of Economic Resources

42. In paragraph 57 of APB *Statement No. 4*, "Basic Concepts and Accounting Principles Underlying Financial Statements of Business Enterprises," economic resources are defined as the scarce means for carrying on economic activities. The economic resources of a particular

enterprise are generally regarded as those *scarce* resources for which there is an *expectation of future benefits to the enterprise either through use or sale*.

43. Not all of the economic resources of an enterprise are recognized as assets for financial accounting purposes. However, criteria for identifying those economic resources that should be recognized as the assets of an enterprise for accounting purposes have not been specified in the official accounting literature. One criterion that has been suggested in published research studies and articles and in position papers, letters of comment, and oral presentations the Board received in connection with the public hearing is that of *measurability*.

44. The criterion of measurability would require that a resource not be recognized as an asset for accounting purposes unless at the time it is acquired or developed its future economic benefits can be identified and objectively measured.

45. Paragraphs 39-40 indicate that at the time most research and development costs are incurred the future benefits are at best uncertain. In other words, there is no indication that an economic resource has been created. Moreover, even if at some point in the progress of an individual research and development project the expectation of future benefits becomes sufficiently high to indicate that an economic resource has been created, the question remains whether that resource should be recognized as an asset for financial accounting purposes. Although future benefits from a particular research and development project may be foreseen, they generally cannot be measured with a reasonable degree of certainty. According to the research data cited in paragraph 41, there is normally little, if any, direct relationship between the amount of current research and development expenditures and the amount of resultant future benefits to the enterprise. Research and development costs therefore fail to satisfy the suggested measurability test for accounting recognition as an asset.

46. The criterion of exchangeability, which was discussed in the Exposure Draft, was not considered a significant factor by the Board in reaching its final conclusion on accounting for research and development costs. The Board believes that exchangeability needs further study and at this time the Board neither accepts nor rejects exchangeability as a criterion for accounting recognition of an economic resource.

Expense Recognition and Matching

47. *APB Statement No. 4* explicitly avoids using the term "matching" because it has a variety of meanings in the accounting literature. In its broadest sense, matching refers to the entire process of income determination—described in paragraph 147 of *APB Statement No. 4* as "identifying, measuring, and relating revenues and expenses of an enterprise for an accounting period." Matching may also be used in a more limited sense to refer only to the process of expense recognition or in an even more limited sense to refer to the recognition of expenses by associating costs with revenue on a cause and effect basis. In the following discussion, matching is used in its most limited sense to refer to the process of recognizing costs as expenses on a cause and effect basis.

48. Three pervasive principles for recognizing costs as expenses are set forth in paragraphs 156-160 of APB *Statement No. 4* as follows:

> *Associating Cause and Effect*. Some costs are recognized as expenses on the basis of a presumed direct association with specific revenue . . . . recognizing them as expenses accompanies recognition of the revenue.
>
> *Systematic and Rational Allocation*. . . . If an asset provides benefits for several periods its cost is allocated to the periods in a systematic and rational manner in the absence of a more direct basis for associating cause and effect.
>
> *Immediate Recognition*. Some costs are associated with the current accounting period as expenses because (1) costs incurred during the period provide no discernible future benefits, (2) costs recorded as assets in prior periods no longer provide discernible benefits, or (3) allocating costs either on the basis of association with revenue or among several accounting periods is considered to serve no useful purpose.... The principle of immediate recognition also requires that items carried as assets in prior periods that are discovered to have no discernible future benefit be charged to expense, for example, a patent that is determined to be worthless.

49. As noted in paragraph 41, evidence of a direct causal relationship between current research and development expenditures and subsequent future benefits generally has not been found. Also, there is often a high degree of uncertainty about whether research and development expenditures will provide any future benefits. Thus, even an indirect cause and effect relationship can seldom be demonstrated. Because there is generally no direct or even indirect basis for relating costs to revenues, the Board believes that the principles of "associating cause and effect" and "systematic and rational allocation" cannot be applied to recognize research and development costs as expenses. That is, the notion of "matching"—when used to refer to the process of recognizing costs as expenses on any sort of cause and effect basis—cannot be applied to research and development costs. Indeed, the general lack of discernible future benefits at the time the costs are incurred indicates that the "immediate recognition" principle of expense recognition should apply.

Usefulness of Resulting Information

50. *APB Statement No. 4* indicates that certain costs are immediately recognized as expenses because allocating them to several accounting periods "is considered to serve no useful purpose." There is general agreement that two of the basic elements in the decision models of many financial statement users are (a) expected return—the predicted amount and timing of the return on an investment—and (b) risk—the variability of that expected return. The data cited in paragraphs 39-41, the views of security analysts and other professional investors submitted to the Board in connection with the public hearing, and FASB interviews with selected analysts and bankers suggest that the relationship between current research and development costs and the amount of resultant future benefits to an enterprise is so uncertain that capitalization of any

research and development costs is not useful in assessing the earnings potential of the enterprise. Therefore, it is unlikely that one's ability to predict the return on an investment and the variability of that return would be enhanced by capitalization.

Capitalization of All Costs When Incurred

51. Enterprises undertake research and development activities with the hope of future benefits. If there were no such hope, the activities would not be conducted. Some persons take the position that the accounting treatment for research and development costs should be determined by considering in the aggregate all of the research and development activities of an enterprise. In their view, if there is a high probability of future benefits from an enterprise's total research and development program, the entire cost of those activities should be capitalized without regard to the certainty of future benefits from individual projects.

52. The Board believes, however, that it is not appropriate to consider accounting for research and development activities on an aggregate or total-enterprise basis for several reasons. For accounting purposes the expectation of future benefits generally is not evaluated in relation to broad categories of expenditures on an enterprise-wide basis but rather in relation to individual or related transactions or projects. Also, an enterprise's total research and development program may consist of a number of projects at varying stages of completion and with varying degrees of uncertainty as to their ultimate success. If research and development costs were capitalized on an enterprise-wide basis, a meaningful method of amortization could not be developed because the period of benefit could not be determined. Moreover, over 90 percent of the respondents to a survey reported in AICPA *Accounting Research Study No. 14* indicated that their company's philosophy is that research and development expenditures are intended to be recovered by current revenues rather than by revenue from new products.[10]

Selective Capitalization

53. Selective capitalization—capitalizing research and development costs when incurred if specified conditions are fulfilled and charging to expense all other research and development costs—requires establishment of conditions that must be fulfilled before research and development costs are capitalized. The Board considered a number of factors on which prerequisite conditions might be based, including the following:

a. *Definition of product or process*. The new or improved product or process must be defined.
b. *Technological feasibility*. The new or improved product or process must be determined to be technologically feasible.
c. *Marketability/Usefulness*. The marketability of the product or process or, if it is to be used internally rather than sold, its usefulness to the enterprise must be substantially assured.
d. *Economic feasibility*. Probability of future economic benefits sufficient to recover all capitalized costs must be high. Encompassed by the notion of economic feasibility is measurability of future benefits. Also implicit is the ability to associate particular future benefits with particular costs.

e. *Management action*. Management must have definitely decided to produce and market or use the new product or process or to incorporate the significant improvement into an existing product or process.

f. *Distortion of net income comparisons*. Capitalization or immediate charging to expense of research and development costs must be determined on the basis of whether interperiod comparisons of net income would be materially distorted.

54. None of those factors, however, lends itself to establishing a condition that could be objectively and comparably applied by all enterprises. Considerable judgment is required to identify the point in the progress of a research and development project at which a new or improved product or process is "defined" or is determined to be "technologically feasible," "marketable," or "useful." Nor can the "probability of future benefits" be readily assessed. A "management decision" to proceed with production does not necessarily assure future benefits. The Board does not believe that "distortion of net income comparisons," which a few respondents to the Discussion Memorandum suggested, is an operable criterion by which to decide whether research and development costs should be capitalized because the point at which net income comparisons might be "distorted" cannot be defined. Moreover, in assessing risk, financial statement users have indicated that they seek information about the variability of earnings.

55. The Board has concluded that no set of conditions that might be established for capitalization of costs could achieve the comparability among enterprises that proponents of "selective capitalization" cite as a primary objective of that approach.

56. If selective capitalization were applied only to costs incurred after fulfillment of the specified conditions, only a portion of the total costs of a particular research and development project would be capitalized and amortized. Thus, the capitalized amount would not indicate the total costs incurred to produce future benefits; nor would the amount of periodic amortization of capitalized costs represent a "matching" of costs and benefits.

57. Selective capitalization might involve retroactive capitalization of previously incurred costs in addition to capitalization of costs incurred after fulfillment of the specified conditions. However, many research and development costs incurred before fulfillment of the conditions are not likely to be directly identifiable with the particular new or improved product or process for which costs would be capitalized. Moreover, retroactive capitalization of costs previously charged to expense is contrary to present accounting practice for other transactions whose initial accounting is not altered as a result of hindsight. The preparation of periodic financial statements requires many estimates and judgments for which restatements are not made in retrospect.

Accumulation of Costs in a Special Category

58. The Board considered the proposal that all research and development costs be accumulated in a special category distinct from assets and expenses until a determination can be made about whether future benefits exist. That special category might be reported either below the asset

section of the balance sheet (with segregation of a corresponding amount of stockholders' equity) or as a negative (contra) element of stockholders' equity. Ultimately, the accumulated costs would be transferred to assets (if future benefits become reasonably established) or written off (if it were reasonably established that no significant future benefits would ensue).

59. A feature cited by proponents of this approach is that it draws attention to the uncertainty surrounding most research and development costs and it enables postponement of the capitalize vs. expense decision. This alternative was rejected, however, for the following reasons. First, financial analysts and others have indicated that costs accumulated in that special category would not be useful in assessing the earning power of an enterprise because of the uncertainties involved, and the research data cited earlier tend to support that view. Second, use of a special category would alter the nature of the basic financial statements and would complicate the computation of ratios and other financial data.

DISCLOSURE

60. Regardless of their position on the accounting treatment for research and development costs, respondents to the Discussion Memorandum generally pointed out that current disclosure practices for research and development costs vary and that requirements for informative disclosure need to be established. The disclosures specified in paragraphs 13-14 reflect the Board's general agreement with that view.

61. The Exposure Draft had proposed that disclosure also be required of (a) the accounting policy for research and development costs, (b) the amount of directly reimbursable research and development costs incurred, (c) the costs of research and development conducted in behalf of the enterprise by others, and (d) the amounts and classifications in the income statement of research and development costs charged to expense during the period. The Board has accepted the recommendation of some respondents to the Exposure Draft that disclosure of accounting policy not be required [11] because this Statement permits only one method of accounting for research and development costs. Some letters of comment on the Exposure Draft indicated that data related to items (b), (c), and (d) above are frequently difficult to obtain and that those disclosures generally would not be meaningful. The Board agrees with this view; this Statement does not require those disclosures.

62. The Board recognizes that disclosure of additional information about an enterprise's research and development activities might be useful to some financial statement users. However, many respondents to the Discussion Memorandum contended that certain kinds of information should not be required to be included in financial statements because the information is not sufficiently objective, is confidential in nature, or is beyond the scope of financial accounting information. For that reason, the Board concluded that disclosure of (a) the nature, status, and costs of individual research and development projects, (b) the nature and status of patents, (c) projections about new or improved products or processes, and (d) an enterprise's philosophy regarding research and development, all of which were included in the Discussion Memorandum

as disclosure possibilities, should not be required. In addition, most respondents said that forecasts of research and development expenditures should not be considered in this project, and the Board agrees with that view. Disclosure of research and development costs by line of business is a matter included in "Financial Reporting for Segments of a Business Enterprise," another project presently on the Board's agenda.

EFFECTIVE DATE AND TRANSITION

63. The Board considered three alternative approaches to reporting a change in the method of accounting for research and development costs: (1) prior period adjustment, (2) the "cumulative effect" method described in *APB Opinion No. 20*, "Accounting Changes," and (3) continued amortization of previously capitalized costs. The Board concluded that the prior period adjustment method will provide the most useful information about research and development costs for comparing financial data for periods after the effective date of this Statement with data presented for earlier periods.

64. Upon consideration of all circumstances, the Board judged that the effective date specified in paragraph 15, which had been proposed in the Exposure Draft, is advisable.

Footnotes

FAS2, Appendix B, Footnote 1--National Science Foundation, *Research and Development in Industry 1971* (Washington, D.C.: U.S. Government Printing Office, May 1973), p. 19.

FAS2, Appendix B, Footnote 2--*Ibid*.

FAS2, Appendix B, Footnote 3--Booz-Allen & Hamilton, Inc., *Management of New Products* (Chicago: Booz-Allen & Hamilton, Inc., 1968), p. 12.

FAS2, Appendix B, Footnote 4--John T. Gerlach and Charles Anthony Wainwright, *Successful Management of New Products* (New York: Hastings House, Publishers, Inc., 1968), p. 126.

FAS2, Appendix B, Footnote 5--Booz-Allen & Hamilton, Inc., *Management of New Products*, p. 2.

FAS2, Appendix B, Footnote 6--*Ibid.,* p. 11.

FAS2, Appendix B, Footnote 7--Maurice S. Newman, "Equating Return from R & D Expenditures," *Financial Executive,* April 1968, pp. 26-33.

FAS2, Appendix B, Footnote 8--Orace Johnson, "A Consequential Approach to Accounting for R & D," *Journal of Accounting Research,* Autumn 1967, pp. 164-172.

FAS2, Appendix B, Footnote 9--Alex J. Milburn, "An Empirical Study of the Relationship of Research and Development Expenditures to Subsequent Benefits," (Unpublished Research Study, Department of Accountancy of the University of Illinois, 1971).

FAS2, Appendix B, Footnote 10--Oscar S. Gellein and Maurice A. Newman, *Accounting Research Study No. 14,* "Accounting for Research and Development Expenditures," (New York: AICPA, 1973), p. 100.

FAS2, Appendix B, Footnote 11--That disclosure is required by this Statement for certain government-regulated enterprises (see paragraph 14).