



ARKANSAS SCIENCE & TECHNOLOGY AUTHORITY

100 Main Street, Suite 450, Little Rock, Arkansas 72201 (501) 371-3554

**MINUTES OF THE 28TH REGULAR MEETING OF THE
ARKANSAS SCIENCE AND TECHNOLOGY AUTHORITY'S
BOARD OF DIRECTORS
JONESBORO, ARKANSAS
JANUARY 22, 1988**

CALL TO ORDER

The meeting was called to order at 1:00 p.m. by Dr. Winfred L. Thompson, Chairman of the Board, in the Osage Room of Reng Center at Arkansas State University, Jonesboro. Board members present included Mr. Harry Truman Moore, Dr. Joe Nix, Mr. Louis Ramsay, Mr. John Troutt, and Mr. Jerry Webster.

Visitors included: Ms. Liz Abernathy, Manager, The Technology Center; Mr. Guy Enchelmayer, Manager, East Arkansas Business Incubator System; Mr. Ted Land, Executive Director, North Arkansas Business Incubator System; Mr. Scott Lewis, Executive Assistant to the President, Arkansas State University; Mr. Jerry Seiff, Executive Director, Genesis Incubator Project; Ms. Leanne Spigner Wisdom, Arkansas Gazette; Mr. Kurt Hodges, Jonesboro Sun.

APPROVAL OF MINUTES

Presenting the draft minutes from the December 4, 1987 Board meeting, Dr. Thompson asked whether there were any additions or corrections. Mr. John Troutt moved that the minutes be approved as written; Mr. Louis Ramsay seconded the motion, which was unanimously approved.

INTRODUCTION OF BUSINESS INCUBATOR MANAGERS

(The introduction of the business incubator managers was deferred to the Planning Committee report.)

PRESIDENT'S REPORT

Dr. Ahlen directed the Board's attention to the president's report (Appendix A) and explained that it was a brief report because of the short length of time between the last Board meeting on December 4, 1987 and the present meeting. Dr. Ahlen stated that Ms. Kay Kelly, communications manager, mailed out the Authority's first bulletin which contained a summary of Mr. Belden Daniels' address to the Board from the Fall Planning Session. Dr. Ahlen indicated that he had received good comments about the bulletin and Mr. Daniels' speech.

INVESTMENT COMMITTEE REPORT

Mr. Harry Truman Moore, chairman of the Investment Committee, presented to the Board the Investment Fund Report for Quarter Ending December 31, 1987 (Appendix B) and indicated the total investment fund balance is now in excess of two million dollars.

In presenting the Status Report on Projects, Jim Benham, vice president finance, stated that ARTECH has employed thirty-two full-time persons during the first six months of its first full fiscal year. Additionally, ARTECH has sales projections of over two million dollars for this year and has a sufficient backlog to support these projections as well as having sufficient bids outstanding to continue building this backlog. ARTECH has also become the full service representative and regional distributor for GMF Robotics, which is the world's largest robotics firm. This resulted as a co-venture between General Motors and FANUC, a Japanese robotics firm.

Mr. Benham reported that MICOIL currently has eight employees, and because of a very successful advertising program, has now created name and product recognition within the electronics industry. From this advertising program, MICOIL has received over 500 inquiries for product information and samples; over 48 sales representative agencies approached MICOIL which resulted in 10 agencies being chosen to represent MICOIL and its products in over 34 states. Two firms will be covering England, Scotland, Ireland, Wales, and France, and negotiations are pending for covering West Germany and Israel. In addition, two government contracts have been secured. With customer response exceeding expectations, MICOIL hopes to surpass its current year sales projections.

During the Board's discussion it was noted that the loans made to ARTECH and MICOIL are currently being repaid on a monthly payment basis. Both ARTECH and MICOIL are ahead of their original projected employment status for this time frame and have continued expectations for future growth.

Regarding the General Fund Second Quarter Expenditure Report, Oct.-Dec. 1987 (also included in Appendix B), Mr. Moore stated that the Authority had only expended 86% of what was authorized for the quarter, and through the first half of the fiscal year had only expended 39% of the total funds allocated. Mr. Moore expressed his appreciation to the Authority's staff for doing a good job of staying within the budget that the state has indicated.

As a note of explanation, Dr. Ahlen stated there were a number of conferences that the ASTA staff attended during the second quarter of the fiscal year that used funds which would normally have been expended later in the fiscal year. As a result, the expenses for travel appeared to be running ahead of schedule. As compensation, the Authority's travel will decrease later in the year.

Dr. Joe Nix made a motion for the Investment Committee Report to be approved; Mr. John Troutt seconded the motion. The Board gave its unanimous approval.

PLANNING COMMITTEE REPORT

Mr. John Troutt stated the Planning Committee had nothing new to report. Ms. Alice Smith gave a brief report of the status of projects.

Ms. Smith recounted to the Board that during the Planning Session in early December 1987, two topics were discussed, and the Board asked the Planning Committee to draft resolutions of each and set these as the Authority's priorities for the next year.

Therefore, Ms. Smith presented for the Board's consideration Draft Resolution No. 88-2, Providing for the Development and Implementation of an Action Plan to Develop an Arkansas Science and Technology Corridor (Appendix C), which states "That the Arkansas Science & Technology Authority will pursue the development and implementation of the science and technology corridor plan as a priority project of the Board of Directors, and will proceed in cooperation with Federal

and State agencies, community leaders and associations, and other interested public and private interest groups, toward this goal." Mr. Harry Truman Moore moved that Resolution No. 88-2 be approved; Mr. Jerry Webster seconded the motion. The Board gave its unanimous approval.

Ms. Smith also presented for the Board's consideration Draft Resolution No. 88-3, Providing for the Support of a Coordinating Office for Federal Science and Technology Research in Arkansas (Appendix D), which states "That the Arkansas Science & Technology Authority will pursue the development and implementation of a plan for a coordinating office for federal science and technology research, as a priority project of the Board of Directors, to serve as an advocate of federal science and technology research and development funding opportunities for Arkansas." Dr. Joe Nix moved that Resolution No. 88-3 be approved; Mr. Jerry Webster seconded the motion. The Board gave its unanimous approval.

Introduction of Incubator Managers

Ms. Smith introduced the incubator managers present for the Board meeting including: Mr. Guy Enchelmayer, Manager of the East Arkansas Business Incubator System; Mr. Jerry Seiff, Manager of the Genesis Incubator Project; Ms. Liz Abernathy, Director of the Technology Center, and Mr. Ted Land, Executive Director of the North Arkansas Business Incubator System.

Update on Incubator Projects

Ms. Smith stated that Mr. Bob Graham, Executive Director of The Business Center, could not be present for the meeting. She presented a brief summary of Mr. Graham's last monthly report to the Authority and stated that the Business Center had initiated a Business Planning Workshop, with the support of funds under the Job Training Partnership Act, for which approximately 140 people registered. From this amount, 80 persons completed the course; 33 persons had viable business plans which resulted in 8 new business incubator prospects. This is a unique approach for generating clients of the business incubator program.

Ms. Liz Abernathy reported the Technology Center has six incubator tenants. Nine other tenants were grandfathered in on the center's master lease, which gives a total of 15 tenants.

The six specific incubator tenants include: Worden and Associates, a biochemical research development firm; HHW Datacorp, a software development firm; Laser Aim Inc., specializing in laser weaponry; Energy Rated Homes of Arkansas, whose speciality is energy efficiency methods; AEB Consultants, a firm offering training seminars and curriculum; and Waggoner & Company, an administrative firm for biomedical researchers.

One tenant has now graduated; Mr. Charles Henderson of Henderson and Company. Mr. Henderson's first shop, J. Persley Chocolates, is now open at MainStreet in downtown Little Rock.

Mr. Guy Enchelmayer reported the East Arkansas Business Incubator System currently has two applications, one of which was approved by its advisory board. This company will be their first tenant and should begin its operations in the incubator by March 1, 1988.

Mr. Ted Land reported the North Arkansas Business Incubator System has one client company employing five persons. NABIS offers secretarial assistance on a fee basis for area businesses. NABIS also has received an application which is pending approval by its advisory board.

Mr. Jerry Seiff reported the GENESIS Incubator has been able to expand their operations for an additional year from the initial funds granted to the incubator. This means they will be able to operate for three years instead of two. GENESIS has been streamlining its entry requirements. The incubator has six tenants and is considering another, U.S. Cosmetics, which manufactures collagen for the cosmetic industry. The three newest tenants are: Nthography, who was featured in Venture magazine as having been selected as one of 100 most exciting new companies in 1987; Allied Mushroom products, Inc., who manufactures spawn for the shitake mushroom; and The Citadel, headed by Dottie Moffett, which has potential for manufacturing diagnostic kits. Energy Techniques, an original tenant, will be graduating from the incubator creating several new offices and offering approximately 30 jobs.

Regarding the incubator projects, Dr. Thompson stated there had been some problems in getting the projects underway, and an important aspect had been recognizing those problems and working out agreements under which operations could proceed. He indicated the Board did not want to be in the business of unfairly competing with private industry, but it does want to encourage job creation and growth and development in

Arkansas. Therefore, at times it will be difficult to distinguish between these two essential facets of one enterprise. Dr. Thompson expressed his appreciation for the work that has taken place in getting the Authority through these early problematic stages.

Dr. Ahlen expressed his appreciation to the incubator managers for the work they have done and the role they have played in helping the Authority accomplish its mission.

Mr. Ramsay stated he felt it would be well received if the incubator managers joined Dr. Ahlen when he presents the Authority's report to the legislature and help by answering any questions the legislature might have regarding the incubator projects.

RESEARCH COMMITTEE REPORT

In Dr. Hart's absence, Dr. Joe Nix, Research Committee member, presented two proposals to the Board with the committee's recommendation that the proposals be approved.

Draft Resolution No. 88-4 (Appendix E), is a basic research project submitted by Dr. C.E. Carlton and Dr. T.J. Kring of the University of Arkansas, Fayetteville, entitled "The Biology and Rearing Requirements of Melitaria prodenialis Walker (Lepidoptera: Phycitidae)," which is to be funded in the amount not to exceed \$13,595. The project proposes to investigate the possibility of using a natural predator as a biological control for prickly pear. Dr. Nix moved that the Board approve Draft Resolution No. 88-4; Mr. Ramsay seconded the motion. Motion carried.

Draft Resolution No. 88-5 (Appendix F), is an applied research project submitted by Dr. Monroe J. Goode and Dr. Teddy E. Morelock of the University of Arkansas, Fayetteville, entitled "Revitalizing the Arkansas Spinach Industry," which is to be funded in the amount not to exceed \$49,610. The project, aided by its private sponsor, the Allen Canning Company, proposes to research and develop new spinach crops that are disease resistant. Dr. Nix moved that the Board approve Draft Resolution No. 88-5; Mr. Ramsay seconded the motion. Motion carried.

During the Board's discussion of Resolution No. 88-5, it was stated that with the newly developed spinach varieties, the employment in growing spinach is expected to increase by

approximately 700 positions. Also, the Allen Canning Company will be contributing to this project equally in the amount of \$49,610, in addition to other sponsors who will be contributing various amounts to this research.

Dr. Nix shared with the Board that one of the main objectives of the Research Committee in reviewing proposals is to insure good science. Before a recommendation is brought before the Board, the committee has already secured input from the scientific community to satisfy this objective.

Dr. Thompson expressed his confidence in and appreciation for the Research Committee and the work it has done.

OLD BUSINESS

Mr. Louis Ramsay presented to the Board Draft Resolution No. 88-1 (Appendix G), Providing for the Commendation of William H. Bowen. The resolution seeks to express the Authority's appreciation to Mr. Bowen for his distinguished service as Chairman of the Arkansas Science and Technology Authority's Board of Directors from August 21, 1986 to September 11, 1987. Mr. Ramsay read the resolution to the Board then moved for its adoption. Mr. Jerry Webster seconded the motion. The Board of Directors unanimously passed the resolution.

Dr. Thompson requested the resolution be appropriately framed for presentation to Mr. Bowen.

NEW BUSINESS

The next Board meeting date is tentatively scheduled for March 4, 1988 in Little Rock; the Authority's staff will verify this date with each Board member by phone.

Dr. Ahlen brought to the attention of the Board the Code of Ethics Disclosure form (Appendix H) which each Board member, by state requirement, should fill out and submit to the Secretary of the State by the end of the month.

Dr. Ahlen shared with the Board a request he received to write a letter of support for a proposed planning grant to study the establishment of an Arkansas Risk Science Research Center. This project is being carried forward by private

citizens in cooperation with the University of Arkansas for Medical Sciences and UALR's Graduate Institute of Technology. Dr. Ahlen believes this letter will carry a stronger endorsement for the planning grant to the National Science Foundation if the Board would consider this item and support it with a motion.

Dr. Ahlen invited the Board's discussion and comments. During this discussion, Dr. Ahlen explained that the request for proposals was issued by the National Science Foundation for Science and Technology Research Centers. There will be approximately twelve of these centers funded. The proposal that is being discussed is for a \$35,000 planning grant to see if all of the component parts can be brought together to establish a Risk Science Research Center. The National Center for Toxicological Research, the University of Arkansas for Medical Sciences and the International Life Sciences Institute have a three-way cooperative agreement for a risk science research center, but it is a very small effort. Therefore, establishing an Arkansas Risk Science Research Center would build on this effort. However, the actual request needs to be submitted through an institution of higher education, so the medical sciences campus would take the lead.

The persons submitting this proposal are very impressed with the apparent lead that the institutions in Arkansas have over the rest of the country in this regard, and they feel this is a unique opportunity.

Mr. Louis Ramsay made a motion for the Board to approve a recommendation that Dr. Ahlen write a letter carrying the Board's endorsement and support for establishing an Arkansas Risk Science Research Center; Mr. Moore seconded the motion. The Board gave its unanimous approval.

ADJOURNMENT

Dr. Thompson thanked Dr. Scott Lewis and Dr. Eugene Smith for hosting the Board meeting at the Arkansas State University campus and for the tour of the East Arkansas Business Incubator System.

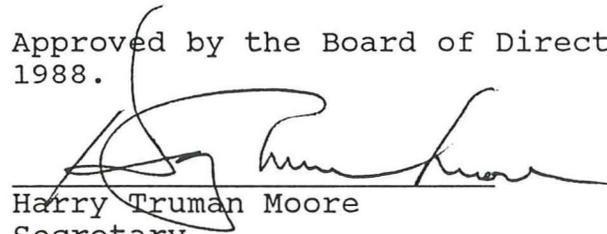
January 22, 1988

There being no further business, the meeting adjourned at 2:10 p.m.

Respectfully submitted,

Harry Truman Moore
Secretary
Board of Directors

Approved by the Board of Directors on this 4th day of March, 1988.



Harry Truman Moore
Secretary
Board of Directors

**ARKANSAS SCIENCE & TECHNOLOGY AUTHORITY**

100 Main Street, Suite 450, Little Rock, Arkansas 72201 (501) 371-3554

RESOLUTION NO. 88-2

PROVIDING FOR THE DEVELOPMENT AND IMPLEMENTATION OF AN ACTION PLAN TO DEVELOP AN ARKANSAS SCIENCE AND TECHNOLOGY CORRIDOR.

WHEREAS, the concept of an Arkansas science and technology corridor was first developed in 1982 as the result of a legislative study on the feasibility of using the National Center for Toxicological Research (NCTR) near Pine Bluff as a resource for economic development;

WHEREAS, this same legislative task force recommended the establishment of a science and technology development agency like the Arkansas Science & Technology Authority;

WHEREAS, the National Advisory Board of First Commercial Bank, N.A., suggested in 1983 that the Authority prepare a master plan for the development of the area, to include identifying those entities most likely to be attracted to a location in proximity to NCTR and to the educational and medical complex in Little Rock and to seek their location in the area;

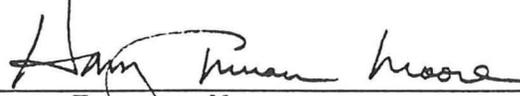
WHEREAS, the Board of Directors, acknowledging the importance of this area to the growth of science- and technology-based enterprises and to the economic growth of the State, approved in 1986 "The Arkansas Science and Technology Corridor: An Avenue for Development," as a discussion and background paper presenting alternatives for action; and

WHEREAS, the Board of Directors renewed its interest in the potential for development of the Arkansas science and technology corridor at its biennial planning session in December, 1987;

NOW THEREFORE BE IT RESOLVED:

THAT the Arkansas Science & Technology Authority will pursue the development and implementation of the science and technology corridor plan as a priority project of the Board of Directors, and will proceed in cooperation with Federal and State agencies, community leaders and associations, and other interested public and private interest groups, toward this goal.

APPROVED by the Board of Directors
on this 22nd day of January, 1988.



Harry Truman Moore
Secretary, Board of Directors

**ARKANSAS SCIENCE & TECHNOLOGY AUTHORITY**

100 Main Street, Suite 450, Little Rock, Arkansas 72201 (501) 371-3554

RESOLUTION NO. 88-3

PROVIDING FOR THE SUPPORT OF A COORDINATING OFFICE FOR FEDERAL SCIENCE AND TECHNOLOGY RESEARCH IN ARKANSAS.

WHEREAS, the federal government spends approximately \$60 billion a year on research and development (R&D) through federal laboratories, colleges and universities, non-profit research organizations and industry;

WHEREAS, the most recent totals of federal R&D obligations by state show Arkansas continues to lag in per capita federal R&D spending;

WHEREAS, the more than 30 states that have established a full-time liaison with Congress and federal agencies are listed in the higher rankings of per capita federal R&D spending;

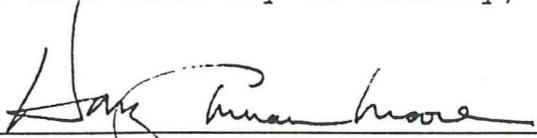
WHEREAS, there is a heightened awareness by Congress of the need to improve the economic competitiveness of the United States, evidenced by the comprehensive trade reform legislation, HR 3, that includes funds for new, technology development programs; and

WHEREAS, the further development of science and technology resources within the state will require substantial financial resources beyond state funds;

NOW THEREFORE BE IT RESOLVED:

THAT the Arkansas Science & Technology Authority will pursue the development and implementation of a plan for a coordinating office for federal science and technology research, as a priority project of the Board of Directors, to serve as an advocate of federal science and technology research and development funding opportunities for Arkansas.

APPROVED by the Board of Directors
on this 22nd day of January, 1988.



Harry Truman Moore
Secretary, Board of Directors

**ARKANSAS SCIENCE & TECHNOLOGY AUTHORITY**

100 Main Street, Suite 450, Little Rock, Arkansas 72201 (501) 371-3554

RESOLUTION NO. 88-4

PROVIDING THE APPROVAL FOR THE FUNDING OF ONE BASIC RESEARCH GRANT PROPOSAL BY THE BOARD OF DIRECTORS OF THE ARKANSAS SCIENCE & TECHNOLOGY AUTHORITY.

WHEREAS, Act 859 as amended empowers the Arkansas Science & Technology Authority to establish and administer a Basic Research Grant Program; and

WHEREAS, Act 571 of 1987 includes an appropriation of \$1,800,000 for funding basic and applied research in Arkansas' colleges and universities; and

WHEREAS, Act 890 of 1987 includes an appropriation of \$314,000 for fiscal year 1987-88 for funding business incubator and basic and applied research in Arkansas' colleges and universities; and

WHEREAS, there are sufficient unencumbered funds in the aforementioned appropriations; and

WHEREAS, proposals were solicited in accordance with rules and guidelines for the Program; and

WHEREAS, proposals were reviewed for eligibility and completeness by the Authority's staff; and evaluated on the basis of scientific merit by peers in appropriate fields of science; and

WHEREAS, the Science Advisory Committee recommends, and the Authority's Research Committee concurs, that no proposal shall be funded without first receiving at least one evaluation from a peer outside the State of Arkansas; and

WHEREAS, the Research Committee is committed to recommending to the Board of Directors those proposals that are scientifically meritorious; and

WHEREAS, the Research Committee finds that it is appropriate for the Authority to fund only proposals that are of limited time duration;

NOW THEREFORE BE IT RESOLVED;

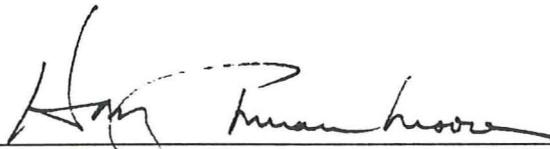
THAT the Arkansas Science & Technology Authority's Board of Directors approves for funding the following proposal:

PROPOSAL NO. 87-B-0004, "The Biology and Rearing Requirements of Melitaria prodenialis Walker (Lepidoptera: Phycitidae)," by Dr. C. E. Carlton and Dr. T. J. Kring of the University of Arkansas, Fayetteville in the amount not to exceed \$13,595.

BE IT FURTHER RESOLVED:

THAT all of the above policies are subject to the action of the Board of Directors within the framework established by Act 859 as amended.

APPROVED by the Board of Directors
on this 22nd day of January, 1988.



Harry Truman Moore
Secretary to the Board of Directors



ARKANSAS SCIENCE & TECHNOLOGY AUTHORITY

100 Main Street, Suite 450, Little Rock, Arkansas 72201 (501) 371-3554

RESOLUTION NO. 88-5

PROVIDING THE APPROVAL FOR THE FUNDING OF ONE APPLIED RESEARCH GRANT PROPOSAL BY THE BOARD OF DIRECTORS OF THE ARKANSAS SCIENCE & TECHNOLOGY AUTHORITY.

WHEREAS, Act 859 as amended empowers the Arkansas Science & Technology Authority to establish and administer an Applied Research Grant Program; and

WHEREAS, Act 571 of 1987 includes an appropriation of \$1,800,000 for funding basic and applied research in Arkansas' colleges and universities; and

WHEREAS, Act 890 of 1987 includes an appropriation of \$314,000 for fiscal year 1987-88 for funding business incubator and basic and applied research in Arkansas' colleges and universities; and

WHEREAS, there are sufficient unencumbered funds in the aforementioned appropriations; and

WHEREAS, proposals were solicited in accordance with rules and guidelines for the Program; and

WHEREAS, proposals were reviewed for eligibility and completeness by the Authority's staff; and evaluated on the basis of scientific merit by peers in appropriate fields of science; and

WHEREAS, the Research Committee is committed to recommending to the Board of Directors those proposals that have clear economic development potential and are ranked as being scientifically meritorious; and

WHEREAS, the Research Committee finds that it is appropriate for the Authority to fund only proposals that are of limited time duration;

NOW THEREFORE BE IT RESOLVED;

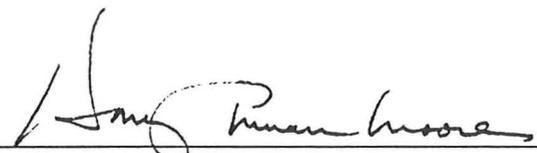
THAT the Arkansas Science & Technology Authority's Board of Directors approves for funding the following proposal:

PROPOSAL NO. 87-A-0005, "Revitalizing the Arkansas Spinach Industry," by Dr. Monroe J. Goode and Dr. Teddy E. Morelock of the University of Arkansas, Fayetteville in the amount not to exceed \$49,610.

BE IT FURTHER RESOLVED:

THAT all of the above policies are subject to the action of the Board of Directors within the framework established by Act 859 as amended.

APPROVED by the Board of Directors
on this 22nd day of January, 1988.



Harry Truman Moore
Secretary to the Board of Directors

**ARKANSAS SCIENCE & TECHNOLOGY AUTHORITY**

100 Main Street, Suite 450, Little Rock, Arkansas 72201 (501) 371-3554

RESOLUTION NO. 88-1

PROVIDING FOR THE COMMENDATION OF WILLIAM H. BOWEN.

WHEREAS, William H. Bowen has distinguished himself as a champion of the State of Arkansas;

WHEREAS, Mr. Bowen was instrumental in the formation of a state-funded authority to explore and expand opportunities for science and technology-based economic development in Arkansas;

WHEREAS, that authority was created by the 74th Arkansas General Assembly as the Arkansas Science & Technology Authority;

WHEREAS, the Arkansas Science & Technology Authority has been privileged to benefit from the wisdom and vision of Mr. Bowen as a member of its Board of Directors since its creation in 1983;

WHEREAS, Mr. Bowen has served as the capable and farsighted Chairman of the Board of Directors of the Arkansas Science & Technology Authority from August 21, 1986 to September 11, 1987; and

WHEREAS, during Mr. Bowen's chairmanship, the Arkansas Science & Technology Authority fully implemented its research and technology development programs to bring the economic benefits of science and advanced technology to the citizens of Arkansas;

NOW THEREFORE BE IT RESOLVED:

THAT the Board of Directors of the Arkansas Science & Technology Authority salutes William H. Bowen, with pride, affection, and respect for his extraordinary efforts on behalf of the Authority, and for distinguished service to our State.

APPROVED by the Board of Directors
on this 22nd day of January, 1988.

Harry Truman Moore
Secretary, Board of Directors