



ARKANSAS SCIENCE & TECHNOLOGY AUTHORITY

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

**MINUTES OF THE 35TH REGULAR MEETING OF THE
ARKANSAS SCIENCE & TECHNOLOGY AUTHORITY'S
BOARD OF DIRECTORS
LITTLE ROCK, ARKANSAS
MARCH 17, 1989**

CALL TO ORDER

The meeting was called to order at 1:45 p.m. by Dr. Joe Nix, Chairman of the Board, in the conference room of the Department of Higher Education, Little Rock, Arkansas.

Board members present included Mr. Bill Bowen, Dr. Paul Marion, Mr. Harry Truman Moore, Dr. Betty Overton, Dr. Don Pederson, Mr. John Troutt, and Dr. William Willingham.

Visitors included Ms. Carol Griffee, Interstate News Service, and Mr. Walter May, Wright Lindsey & Jennings.

Dr. Nix introduced Dr. Betty Overton, Dean of the Graduate School at UALR. Dr. Overton is a newly appointed member of the Board. The Board welcomed Dr. Overton.

APPROVAL OF MINUTES

Dr. Nix presented the minutes from the January 20, 1989 meeting for approval. Dr. Ahlen gave a correction to the minutes. The date of the Research Committee meeting was January 20, 1989 (page 2 under the heading "Research Committee Report"). With this correction, Mr. Bowen moved the minutes be approved. Mr. Moore seconded the motion; the Board gave its unanimous approval.

PRESIDENT'S REPORT

Dr. Ahlen directed the Board's attention to the President's Report and asked if there were any questions concerning the report. There were no questions.

Science & Technology Corridor, and
Coordinating Office Effort

Ms. Smith reported the National Biotechnology Cooperative is on hold since the Office of Management and Budget directed the Food and Drug Administration not to spend funds on the project in December. Senator Bumpers is assisting in the effort to get those funds released. The Jefferson Foundation has contracted with Battelle Memorial Institute for a preliminary survey on the concept of the National Biotechnology Cooperative. Their preliminary results point to the need for a complete feasibility study. Ms. Smith reported the appropriation process for the Food and Drug Administration will include more funds for this project in the next fiscal year.

State Legislative Report

Ms. Smith called the Board's attention to her Memorandum regarding the State Legislative Report. Ms. Smith stated that all the bills directly affecting ASTA passed. The appropriations bill came out in good shape. Out of the \$4.6 million requested for programs in the next biennium in the appropriations bill, the Authority will receive \$3.2 million. From this amount, \$2 million is for Centers of Excellence.

EPSCoR Update

The Arkansas EPSCoR Committee, chaired by Dr. David Straub, met (on February 14, 1989) to begin preparation for writing the formal proposal to the National Science Foundation under EPSCoR. The Committee agreed the proposal should focus on Centers of Excellence. Colleges and universities in the state will be contacted and queried about potential research areas.

In addition, there is now a privately funded group composed of EPSCoR states that has retained a representative in Washington to promote EPSCoR. The group held briefings on March 6 and 7 for the staff and members of the U.S. Senate and the U.S. House of Representatives. The briefings were well received, an indication that the EPSCoR program has congressional support.

INVESTMENT COMMITTEE REPORT

Mr. Moore reported that the Investment Committee received a request from Recovery Enhancement Systems (RES), Inc. for an extension of the 90-day period in which to comply with the

contingencies stated in Resolution 88-17 that was approved at the November 18, 1988 Board meeting. Mr. Moore stated that representatives of RES, Inc. met with him, Mr. Bowen, Mr. Benham, and Ms. DeLamar regarding the extension of the 90-day period (Appendix I, Minutes of Investment Committee Meeting, March 17, 1989). RES, Inc. presented documentation of incorporation and patent application, and Mr. Benham received confirmation from First National Bank in El Dorado that a \$300,000 loan had been approved for RES, Inc. While some of the capital requirements are complete, an extension of the 90-day period would allow RES, Inc. sufficient time to complete all the requirements set forth in Resolution No. 88-17.

Mr. Moore stated that he supports and recommends an extension of the 90-day period for RES, Inc. Mr. Moore noted, however, that this was not a formal recommendation of the Investment Committee because there was not a quorum of the Committee present at the meeting with RES, Inc. representatives. Mr. Moore moved that the time period for RES, Inc. to complete the contingencies set forth in Resolution No. 88-17 be extended through May 19, 1989, the next meeting of the Authority's Board of Directors. Dr. Marion seconded the motion. The Board unanimously approved the motion.

Mr. Moore reported that Energy Techniques, Inc. (ETI) had also requested an extension of time in which to complete the contingencies set forth in Resolution No. 88-18 that was approved at the November 18, 1988 Board meeting. Mr. Moore stated that representatives of ETI met with him, Mr. Bowen, Mr. Benham, and Ms. DeLamar regarding an extension of the 90-day period. However, ETI was unable to show documentation of their progress toward fulfilling the contingencies of Resolution 88-18. Therefore, Mr. Moore moved that Energy Techniques' request for an extension of the 90-day period to complete the requirements of Resolution No. 88-18 be held in abeyance until ETI provides documentation that clarifies their progress toward completion of the stated requirements. Mr. Bowen seconded the motion; the Board unanimously approved the motion.

Mr. Moore called the Board's attention to the Investment Fund Report dated February 28, 1989. Mr. Moore pointed out that the total cash balance of the Seed Capital Investment Fund now exceeds the original \$1.8 million appropriation due to the fact that principal and interest earned have recovered all funds invested to date. Mr. Moore stressed there are no Seed Capital Investment Fund monies invested in any institution in which a Board member has any interest or ownership. Mr. Moore moved for approval of the Investment Fund Report; Dr. Pederson seconded the motion. The Board approved the motion.

Dr. Ahlen invited the Board to review the article, "Risky Business," that was published in Arkansas Business. The article discusses the status of investments made under the Seed Capital Investment Program.

PLANNING COMMITTEE REPORT

Dr. Paul Marion reported the Planning Committee met (Appendix II, Minutes of Planning Committee Meeting, March 13, 1989) to hear a presentation from representatives of the University of Arkansas at Monticello regarding a proposal to establish a business incubator for rural Southeast Arkansas. Dr. Marion stated the proposal met the guidelines established for incubator proposals, but the Committee had several specific concerns regarding the proposal. The Authority's staff will work with UAM to satisfy these concerns.

Dr. Ahlen reported the UAM proposal was reviewed by Mr. Trent Williams of the Gulf South Research Foundation. Mr. Williams attended the March 13 Planning Committee meeting and voiced several concerns. Dr. Ahlen stated that Mr. Williams will submit a written report on his evaluation of UAM's proposal. Mr. Williams asked Dr. Ahlen to report to the Board three of his specific concerns:

- (1) The proposal showed no support from the Southeast Arkansas Compact;
- (2) The proposal showed no support from the industrial and business community in Southeast Arkansas; although, reference was made that sixteen firms had expressed an interest in an incubator for Southeast Arkansas.
- (3) There was no explanation given in the proposal regarding how the facility would continue to operate after the Authority's initial funding has ended.

Having noted these three observations, Dr. Ahlen stated that Mr. Williams reported the proposal is of sufficient quality to merit the Board's consideration. Therefore, based on the recommendation of the Planning Committee, Dr. Marion offered Draft Resolution No. 89-14 for the Board's approval.

Draft Resolution No. 89-14

Draft Resolution No. 89-14 provides for the funding of:

PROPOSAL NO. 89-I-0001, "The Industrial Renaissance Center" an industrial incubator program for rural Southeast Arkansas, sponsored by the University of Arkansas at Monticello, has as it's overall goal to rejuvenate industrial activity to previous levels and intensities, and become the fulcrum for successfully bridging the gap between economic development needs and industrial activity in a seven county area; for a sum to be negotiated, but not to exceed \$250,000.

The Board discussed the possibility of receiving additional proposals for incubators in Southeast Arkansas since the deadline for submitting proposals is set for March 31, 1989. It was decided that each proposal would be reviewed as it is received, so the Board's approval of the UAM proposal would not preclude the possibility of another proposal being funded.

After the Board concluded its discussion of the proposal, Dr. Marion moved for approval of Draft Resolution No. 89-14; Mr. Troutt seconded the motion. The Board gave its unanimous approval.

Coordination of State Agency Efforts in Economic Development

Mr. Troutt entered a motion that the Authority contact other state agencies that are involved in similar economic and industrial development programs in an effort to coordinate and eliminate any duplication of effort among the different agencies. Mr. Troutt suggested that guidelines be established regarding what should be done by each agency. Mr. Bowen seconded the motion; the Board gave unanimous approval.

RESEARCH COMMITTEE REPORT

Dr. Willingham reported the Research Committee met on March 8, 1989 to consider over 40 proposals (Appendix III, Minutes of Research Committee Meeting, March 8, 1989). The Committee recommended 14 of the proposals for funding. Dr. Willingham stated that each proposal was externally reviewed.

Based on the Research Committee's recommendation, Dr. Willingham presented the following resolutions for the Board's approval:

Draft Resolution No. 89-3

Draft Resolution No. 89-3 provides for the funding of one basic research grant proposal:

Proposal No. 88-B-0025, "Mineralogy of the Granite Mountain Syenite," by Dr. Henry L. Barwood of Arkansas Tech University in the amount not to exceed \$15,100.

Dr. Willingham moved for approval of the resolution; Dr. Pederson seconded the motion. The Board gave unanimous approval.

Draft Resolution No. 89-4

Draft Resolution No. 89-4 provides for the funding of one basic research grant proposal:

Proposal No. 88-B-0032, "Synthesis of Isogenic Alloplasmic Cotton Lines," by Dr. James McD Stewart of the University of Arkansas in the amount not to exceed \$29,650.

Dr. Pederson stated that this proposal is from the university of his affiliation. Dr. Willingham moved for approval of the resolution; Dr. Overton seconded the motion. The Board gave unanimous approval.

Draft Resolution 89-5

Draft Resolution No. 89-5 provides for the funding of two basic research grant proposals:

Proposal No. 88-B-0034, "NMR Coils for In-Vivo Imaging and Spectroscopy," by Dr. Roger M. Hawk of the University of Arkansas at Little Rock in the amount not to exceed \$11,354.40.

Proposal No. 88-B-0036, "Synthesis of Thienylamphetamines Derivatives: Potential New Nuclear Imaging Agents," by Dr. Dominic T. Yang of the University of Arkansas at Little Rock in the amount not to exceed \$31,497.

Dr. Overton stated these two proposals are from the university of her affiliation. Dr. Willingham moved for approval of the resolutions; Dr. Pederson seconded the motion. The Board gave unanimous approval.

Draft Resolution No. 89-6

Draft Resolution No. 89-6 provides for the funding of two applied research grant proposals:

Proposal No. 88-A-0009, "The Isolation and Use of Secretary Products of Uterovaginal Sperm Host Glands for Fertility Preservation," by Dr. Grover C. Harris, Jr., of the University of Arkansas at Fayetteville in the amount not to exceed \$8,000. This project is cosponsored by the Arkansas Poultry Federation in the amount of \$8,000.

Proposal No. 88-A-0015, "Development of a Physiological Basis for Integrating Late Season Cotton Crop Management," by Dr. Derrick M. Oosterhuis of the University of Arkansas at Fayetteville in the amount not to exceed \$20,082. This project is cosponsored by the Alzheimer Foundation in the amount of \$20,082.

Dr. Pederson stated these two proposals are from the university of his affiliation. Dr. Willingham moved for approval of the proposals; Mr. Bowen seconded the motion. The Board gave unanimous approval.

Draft Resolution No. 89-7

Draft Resolution No. 89-7 provides for the funding of two applied research grant proposals:

Proposal No. 88-A-0020, "Advancement of the E-SPART Analyzer," by Dr. Malay Mazumder of the University of Arkansas at Little Rock, in the amount not to exceed \$30,000. This project is cosponsored by AGL Corporation in the amount of \$30,000.

Proposal No. 88-A-0022, "Expert Check and Cash Letter Management," by Dr. John Talburt of the University of Arkansas at Little Rock in the amount not to exceed \$11,250. This project is cosponsored by Arkansas Systems, Inc. in the amount of \$11,250.

Dr. Overton stated these two proposals are from the university of her affiliation. Dr. Willingham moved for approval of the proposals; Dr. Pederson seconded the motion. The Board gave unanimous approval.

Draft Resolution No. 89-8

Draft Resolution No. 89-8 provides for the funding of one applied research grant proposal:

Proposal No. 88-A-0010, "Development of Industrial Nitro-Organic Syntheses," by Dr. Neil Allison and Dr. Christopher Murray of the University of Arkansas at Fayetteville in the amount not to exceed \$36,216.55. This project is cosponsored by Garrison Industries in the amount of \$18,108.

Dr. Pederson stated this proposal is from the university of his affiliation. Dr. Willingham moved for approval of the proposal; Mr. Bowen seconded the motion. The Board gave unanimous approval.

Dr. Nix pointed out for the Board that the following proposals will be funded under the Energy-Related Research Program.

Draft Resolution No. 89-9

Draft Resolution No. 89-9 provides for the funding of one basic (energy-related) research proposal:

Proposal No. 9-EB-019, "Geologic Model of the Batson Gas Field of Johnson County, Arkansas," by Dr. Roy VanArsdale of the University of Arkansas at Fayetteville in the amount not to exceed \$59,200.

Dr. Pederson stated this proposal is from the university of his affiliation. Dr. Willingham moved for approval of the resolution; Dr. Overton seconded the motion. The Board gave unanimous approval.

Draft Resolution No. 89-10

Draft Resolution No. 89-10 provides for the funding of one basic (energy-related) research grant proposal:

Proposal No. 9-EB-021, "The Elastic Response of High Temperature Superconductors," by Dr. Thomas J. Turner of Ouachita Baptist University in the amount not to exceed \$34,917.

Dr. Nix stated this proposal is from the university of his affiliation. Dr. Willingham moved for approval of the resolution; Dr. Pederson seconded the motion. The Board gave unanimous approval.

Draft Resolution No. 89-11

Draft Resolution No. 89-11 provides for the funding of one basic (energy-related) research grant proposal:

Proposal No. 9-EB-037, "Design Studies for the Calibration System of GRANDE," by Dr. Alois J. Adams and Dr. Robert L. Bond of the University of Arkansas at Little Rock in the amount not to exceed \$22,744.

Dr. Overton stated this proposal is from the university of her affiliation. Dr. Willingham moved for approval of the resolution; Dr. Pederson seconded the motion. The Board gave unanimous approval.

Draft Resolution No. 89-12

Draft Resolution No. 89-12 provides for the funding of one basic (energy-related) research grant proposal:

Proposal No. 9-EB-041, "Methane Production from Hominy Waste Digestion," by Dr. Terry J. Siebenmorgen of the University of Arkansas at Fayetteville in the amount not to exceed \$5,000.

Dr. Pederson stated this proposal is from the institution of his affiliation. Dr. Willingham moved for approval of the resolution; Mr. Bowen seconded the motion. The Board gave unanimous approval.

Draft Resolution No. 89-13

Draft Resolution No. 89-13 provides for the funding of one applied (energy-related) research grant proposal:

Proposal No. 9-EA-014, "Evaluation of NMR Imaging for the Study of Miscible and Immiscible Core Floods," by Dr. Richard A. Komoroski of the University of Arkansas for Medical Sciences in the amount not to exceed \$12,500. This project is cosponsored by ARCO Oil and Gas Company in the amount of \$12,500.

Dr. Willingham moved for approval of the resolution; Dr. Pederson seconded the motion. The Board gave unanimous approval.

Dr. Nix commended Dr. Willingham and the Research Committee members for their excellent work in evaluating the numerous proposals.

Mr. Bowen moved that letters of appreciation be written to the cosponsors of the applied research grants. Dr. Pederson seconded the motion; the Board gave unanimous approval.

OLD BUSINESS

(No old business items were discussed.)

NEW BUSINESS

Dr. Ahlen reported two changes in the Authority's staff. The first change was in the Communications Program. The position of Communications Program Manager is now vacant due to Ms. Kelly's departure. The second change is in the position of Fiscal Officer. Mr. Bill Parks has accepted the position of Planning Coordinator in the Office of Budget at the University of Arkansas for Medical Sciences. Mr. Bowen entered a motion that the Board formally express its appreciation of Mr. Parks' work; Mr. Moore seconded the motion. Therefore, given the exceptional work of Mr. Parks during his tenure as Fiscal Officer for the Authority, the Board, by unanimous vote, extended its appreciation to Mr. Parks for a job expertly done, and many good wishes for his future endeavors.

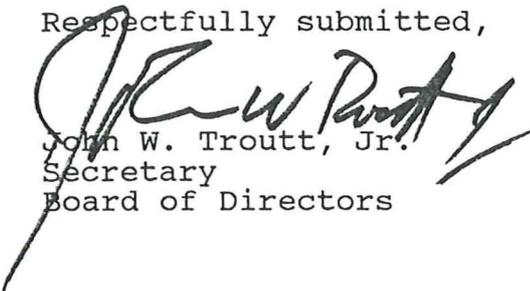
Next Board of Directors Meeting

The next meeting of the Board is scheduled for May 19, 1989 at the Department of Higher Education in Little Rock.

ADJOURNMENT

There being no further business, the meeting adjourned at 3:45 p.m.

Respectfully submitted,


John W. Troutt, Jr.
Secretary
Board of Directors

Approved by the Board of Directors
on this 19th day of May, 1989.



John W. Troutt, Jr.
Secretary
Board of Directors

JWT:kb

M I N U T E S

INVESTMENT COMMITTEE MEETING HIGHER EDUCATION BUILDING, CONFERENCE ROOM MARCH 17, 1989

CALL TO ORDER

Mr. H.T. Moore, Chairman of the Investment Committee, called the meeting to order at 12:45 p.m. Present were Mr. Bill Bowen, Dr. John Ahlen, Mr. James T. Benham, Ms. Megan DeLamar, Mr. Duane Huston of RES, Inc., Mr. E.J. Daugherty of RES, Inc., Mr. Rodney Tolander of Energy Techniques, Inc., and Mr. Tom Stanton of Energy Techniques, Inc.

OLD BUSINESS

There were no old business items discussed.

NEW BUSINESS

Mr. Moore explained that the purpose of the meeting was to ascertain the status of RES, Inc., and Energy Techniques, Inc. The Board of Directors had passed resolutions to pursue investment in these companies at the November 14, 1988 meeting. In particular, the Committee had requested specific information regarding the companies' progress in obtaining the additional financing as specified in the resolutions. To that end, Mr. Moore then asked the representatives of the two companies to give short presentations.

Mr. Daugherty of RES, Inc., explained that the additional financing required in Board Resolution No. 88-17 has been secured through an SBA-guaranteed loan from the First National Bank of El Dorado. Mr. Benham verified that verbal confirmation had been received from First National Bank of El Dorado regarding the SBA approval. Mr. Huston explained that while it had taken the SBA ten days to give them an answer regarding the loan guarantee, it had taken sixty days to obtain confirmation.

Mr. Daugherty estimated that the company would require a sixty- to ninety-day extension to close the loan and thus be ready to negotiate with ASTA regarding the terms of the Authority's proposed investment. Mr. Moore suggested that

RES, Inc., be given an extension until the next Board of Directors Meeting, scheduled for May, 1989. Mr. Daugherty agreed to this arrangement. Mr. Moore thanked Mr. Daugherty and Mr. Huston and they departed.

The second presentation was made by Mr. Tolander and Mr. Stanton of Energy Techniques, Inc. The additional funding required by ASTA Board Resolution No. 88-18 has two components: \$205,000 of research and development funding and \$320,000 of corporate expansion funding. Mr. Tolander addressed the research and development aspect. He stated that Alan Magee of Entrepreneurial Services Center at the University of Arkansas at Fayetteville and Dr. Ron Goforth of the University of Arkansas at Fayetteville are taking an active role in helping Energy Techniques, Inc., find additional funding. Mr. Tolander said that they are at the beginning of the application process with the two possible sources, but could have something next week. He listed the Oklahoma Development Finance Authority and the Southwest Missouri Development Finance Authority as possible sources.

Mr. Stanton reported on the expansion funding. He listed the same out of state groups and Southern Development Bank in Arkadelphia, Arkansas, as possible sources. Mr. Benham asked him if he had spoken with Mr. Jeff Doose of Southern and Mr. Stanton said that they had received verbal approval from Mr. Doose for \$200,000 to \$250,000. Mr. Stanton said that over the last several months, Stephens, Inc. had been conducting a thorough due diligence, resulting in a good review. Stephens, Inc. showed an interest in second tier financing for Energy Techniques, Inc. when company revenues reach \$1 million in volume.

Mr. Moore asked if the Oklahoma and Missouri sources understood that ASTA's possible investment requires Energy Techniques, Inc., to agree to retain its principal place of manufacturing in Arkansas. Mr. Stanton said he felt sure that they did. Mr. Moore also asked if the company had additional key personnel to hire. Mr. Tolander said that, as per their business plan, the key research and development employee would be hired when funding was secured.

Mr. Moore asked Mr. Benham if the continued commitment of \$250,000 to Energy Techniques would hurt the Seed Capital Investment Program's ability to fund other proposals. Mr. Benham replied that a legislative oversight may or may not limit the funds available for investment this fiscal year. Mr. Benham inquired as to the relationship of Spectrum, Inc. to Energy Techniques, Inc. Mr. Tolander stated that

Spectrum, Inc. is an entirely separate company owned solely by him. Mr. Tolander stated that Spectrum, Inc. will not represent a time constraint that will take away from Energy Techniques. Mr. Moore thanked Mr. Stanton and Mr. Tolander and they departed.

At the close of the meeting, it was decided that since a quorum of the Committee was not present, all action would be deferred to the Board of Directors Meeting.

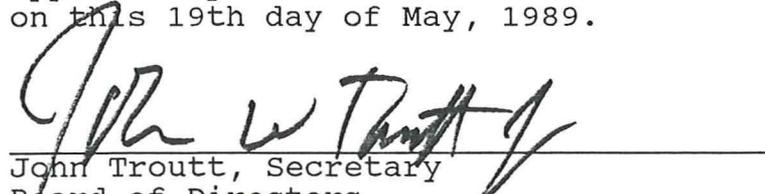
ADJOURNMENT

The meeting was adjourned at 1:15 p.m.

Respectfully submitted,


Megan DeLamar
Finance Program Manager

Approved by the Board of Directors
on this 19th day of May, 1989.



John Troutt, Secretary
Board of Directors

M I N U T E S

PLANNING COMMITTEE MEETING DEPARTMENT OF HIGHER EDUCATION MARCH 13, 1989

CALL TO ORDER

Dr. Win Thompson and Dr. Paul Marion were in attendance, and Dr. John Ahlen, Mr. Charles Myers, and Ms. Alice Smith attended for the Authority's staff. Also present were Mr. Trent Williams of Gulf South Research Foundation and Mr. Charles Higgins of the University of Arkansas at Monticello.

OLD BUSINESS

There was no old business.

NEW BUSINESS

The purpose of the meeting was to hear the University of Arkansas at Monticello's presentation of its incubator proposal. Dr. Ahlen stated that UAM's proposal was reviewed by the Authority's staff and it meets the rules of the incubator program. The proposal was also sent to Planning Committee members and Mr. Trent Williams of Gulf South Research Institute.

Mr. Charles Higgins gave a presentation of UAM's incubator proposal and explained UAM's plan to establish the Industrial Renaissance Center as an integral part of their overall economic development concept.

There were a number of questions asked of Mr. Higgins. The main concerns were:

- (1) More thought should be put into the separation of economic development funds from the Department of Higher Education and the incubator funds from the Authority.
- (2) There is some concern about the incubator providing accounting services, specifically involving liability, selection of firm or individual, and whether public funds should be used to support this type of activity.
- (3) The proposal may lead one to see a connection between the incubator and the university's rural health care program.

Mr. Higgins addressed the three concerns by stating:

- (1) The program supported by the Department of Higher Education and the incubator program would have separate office space, be separately managed, and provide different services.
- (2) The accounting services would only be provided in the start-up phase of a business and would be more of a training service to start businesses on the proper track.
- (3) There is no intention to support development programs with incubator funds.

Dr. Thompson commented that in reference to the accounting matter, there is a fine line between educating and assisting and he urged caution.

After further general discussion, the Committee decided to recommend funding of UAM's proposal to the Board of Directors at the March 17 meeting.

ADJOURNMENT

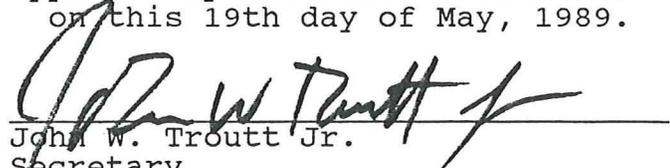
The meeting was adjourned.

Respectfully submitted,

John W. Ahlen

JWA:mm/kb

Approved by the Board of Directors
on this 19th day of May, 1989.


John W. Troutt Jr.
Secretary
Board of Directors