Chemical Engineering at NCSU

The Heart of the Department

The first issue of this newsletter stimulated a number of alumni letters reminding us of many contributions that Professor J. Frank Seely made to the Department and its students over four decades. Alumni wrote to recall Frank’s contributions as a teacher and as an advisor. We were reminded that Frank was a strong, practical engineer, a dedicated, effective teacher and a caring, interested counselor. One letter even reminded us of a private side of Frank Seely, his successful courtship of Lucille Joyner, secretary to the then Department Head, Professor Edgar Randolph.

Frank Seely passed away on January 19, 1991, after a protracted hospitalization. Despite the fact that he had been “retired” for almost ten years, the Department felt a deep loss. As much as any person, Frank Seely shaped the strong traditions of chemical engineering at North Carolina State University and contributed to the professional success of many of its alumni. In a fortunate happenstance of timing, Frank had an opportunity to experience the high regard in which he was held by the Department’s graduates. Frank read each of the alumni letters in which he was mentioned and had a chance to relive the incidents that were cited.

Frank graduated with Honors from NCSU, earning both undergraduate (1938) and graduate degrees (1941) in chemical engineering. He worked with Texas Oil Company before returning to NCSU in 1941 to begin a teaching career. He took one and one-half years off during World War II to work for Union Bag and Paper Corporation. Frank officially retired from NCSU in 1982 as Alumni Distinguished Professor. He was elected a Fellow of the American Institute of Chemical Engineers in 1987.

Former Governor Terry Sanford appointed Frank Seely to the N.C. State Board of Examiners of Plumbing and Heating Contractors in 1963. He served as Vice-Chairman of this Board from 1964 to 1978 and as Secretary-Treasurer from 1979 to 1988. He received a personal letter of thanks from Governor Jim Martin upon his retirement from the Board in 1988.

In 1969, Frank was recognized by Governor Robert Scott for publications on the phosphates industry of North Carolina. He was also recognized by the Building Inspectors Association of North Carolina and the N.C. Plumbing Inspectors Association.

Frank Seely had an especially strong love for family and friends. At West Raleigh Presbyterian Church, he was a former superintendent of Sunday School and served as both Elder and Deacon. He was also a leader of the Cub Scouts and Boy Scouts for many years.

He is survived by his wife, Lucille Joyner Seely; daughter, Mrs. Ann Seely Sealey, and son-in-law, Robert Ivan Sealey of Raleigh; son, John Francis Seely, and daughter-in-law, Gloria Seely, of Lorton, Virginia; grandchildren, Cristie Anne Sealey and husband, Chuck Rigsbee of Tuscaloosa, Alabama; Robert Eric Sealey and Ivan Cameron Sealey of Raleigh, Laurel Kristin Seely and Adrienne Melissa Seely of Lorton, VA.

In 1980, when Harold Hopfenberg succeeded James Ferrell as Head of the Chemical Engineering Department, a small ceremony was held to “pass the baton.” Frank Seely attended, as did Larry Monteith, now Chancellor of North Carolina State University, and then Dean of the College of Engineering. In commenting on the change of leadership, Larry Monteith said, “The Chemical Engineering Department has a new Head.” He then continued, looking at Frank Seely, “However, I am pleased to know that it still has the same heart.” Frank was the heart of this department for more than four decades. Faculty, alumni, students and university administrators owe him a great debt of gratitude.
Dr. Michael R. Overcash, NCSU professor of chemical engineering, has received two honors for his leadership in pollution prevention research.

The Lawrence K. Cecil Award, the American Institute of Chemical Engineers' (AIChE's) highest environmental research honor, was presented to Overcash during the Institute's annual meeting held August 19-22, 1990, in San Diego. The award was sponsored by British Petroleum America.

On October 8, 1990, Overcash received the National Research Award for Beneficial Use of Municipal Wastewater Sludge by the Environmental Protection Agency (EPA). Competition for the beneficial use award — one of two such national awards given by the EPA — came from environmental researchers representing all of EPA's 10 regions nationwide.

A member of the NCSU faculty since 1972, Overcash has been active at the state, national and international levels in environmental research, regulatory review and training. He is currently a Distinguished Visiting Scientist with the EPA in Cincinnati.

Changes in Pollution Prevention Research

The Center for Waste Minimization and Management was founded at NCSU by Dr. Overcash in early 1989 for the purpose of finding ways to reduce industrial use, generation, and output of hazardous substances. Initial funding was provided by EPA's Office of Exploratory Research at a level of about $1 million per year. During its first two years, the Center made excellent technical progress in a number of areas, including waste minimization during batch reactor cleaning, solventless cleaning of semiconductor surfaces, dioxin reduction in pulp bleaching, means for controlling fugitive emissions from process equipment, and minimization of chlorofluorocarbon losses during blowing of polyurethane foams. This last project recently received a grant from the S.C. Johnson Company to scale-up the techniques developed in the laboratory.

The progress of the Center was reviewed in July 1991 by a blue-ribbon Scientific Advisory Board chaired by Dr. Donald R. Paul ('61), Melvin H. Gertz Regents Professor of Chemical Engineering at the University of Texas and a member of the National Academy of Engineering. Despite an outstanding review, the EPA discontinued funding of the Center on August 31, 1991. This abrupt, unexplained decision has caused a significant dislocation in the Department's educational and research programs.

A strong effort is being made to maintain the Department's national leadership in pollution prevention. Dr. Overcash and Dr. James K. Ferrell, ex-Department Head and former Dean of Engineering, are working together to restructure NCSU's efforts under a new organization, the Pollution Prevention Research Center. A key objective will be to expand the existing industrial consortium of research sponsors, which currently includes AT&T, Tennessee Eastman and S.D. Warren Paper Company.

Marvel Mitchell is Promoted, Faye Dent Takes Over as Chem. E's Administrative Assistant

On January 1, 1991, Marvel O. Mitchell was promoted to a position as Administrative Assistant to Harold B. Hopfenberg, ex-Department Head of Chemical Engineering and now Executive Assistant to the Chancellor. Marvel served the Chemical Engineering Department with great skill and dedication for more than two decades. Her daily presence will be greatly missed.

Faye M. Dent is the new Administrative Assistant in Chemical Engineering. She comes to us with a background of 20 years of service at NCSU and with additional experience in private industry. Her campus career includes assignments in Physical Plant, Transportation, the College of Education and Psychology and, most recently, the Computer Graphics Center.

Faye is an active member of Professional Secretaries International (PSI) and was selected as Outstanding Member of the Year for 1990-91 by the Raleigh Chapter. This selection was based on her many contributions to the organization, but particularly for the progress made in the North Carolina legislature to gain recognition and professional status for secretaries. Faye has passed the rigorous, two-day examination required for designation as a Certified Professional Secretary.

Faye’s husband, Charles, is a Captain in the Raleigh Fire Department. Her son, Brooks, is a Business Management major at NCSU.

As she gains experience in the Department, Faye will become more involved with alumni affairs. In the meanwhile, if she can be of any service to you, please give her a call at (919) 515-2324. You’ll find that she goes about her work enthusiastically, with a “can-do” attitude.

This year’s AIChE Student Chapter placed third in the annual NCSU Engineers’ Day competition. The outstanding performance of the day was by George Edwards, a senior from Spring Hope, NC, who won the pie-eating contest.
Carbonell Named Reynolds Award Recipient

Dr. Ruben G. Carbonell, Hoechst Celanese Professor of Chemical Engineering at North Carolina State University, has been named the 10th recipient of the R.J. Reynolds Tobacco Co. Award for Excellence in Teaching, Research, and Extension. He is the third Chemical Engineering faculty member to receive this prestigious award, following Richard M. Felder (1982) and Harold B. Hopfenberg (1985).

The award, established by R.J. Reynolds Tobacco Co. through the N.C. Engineering Foundation, is presented annually by the NCSU College of Engineering to honor a member of its faculty.

As award recipient, Carbonell presented a lecture, “Science is...Sensual,” in which he reflected on the human side of engineering and the importance of the humanities in the development of scientists and engineers.

Carbonell is noted for his research on the interactions of proteins with fluid-fluid and fluid-solid interfaces, aimed at the development of new approaches to the separation of biological molecules and the design of biosensors.

He has made significant contributions to understanding the role that interfacial properties play in molecular recognition, and his work has led to innovative processes that utilize surface coatings and small lipid spheres (vesicles) for protein purification and for immunodiagnostics.

Ruben Carbonell (left, rear) was joined by his family at the presentation of the R.J. Reynolds Award. Next to Ruben is his wife, Augustina, followed clockwise by his father, Ruben, his mother, Guillermina and his sons, Tomás and David.

Carbonell earned his doctorate in 1973 and his master’s degree in 1971 in chemical engineering from Princeton University. He holds a bachelor of science degree in chemical engineering from Manhattan College.

Prior to joining the NCSU faculty in 1984, he was a professor at the University of California at Davis. He was named Hoechst Celanese Professor in 1989, the same year he received the NCSU Alumni Outstanding Research Award.

Awards and Honors

The Department takes pride in the awards and honors given recently to its faculty and students:

Faculty
- Steven W. Peretti was named a 1991 Presidential Young Investigator by the National Science Foundation. This prestigious award recognizes accomplishment in research and teaching, as well as potential for leadership in the academic community.

- Peter K. Kilpatrick received an AT&T Foundation Award for Excellence in Teaching from the American Society for Engineering Education.

- Ruben G. Carbonell was named an Outstanding Teacher at NCSU and a member of the Academy of Outstanding Teachers.

Graduate Students
- M. Shawn McCutcheon received an Outstanding Graduate Student Teaching Assistant Award from NCSU.

- Nathanel R. Miranda received a fellowship from the Plastics Institute of America and was also accepted as a participant in the 1991 Summer Institute in Japan through a national competition sponsored by the National Science Foundation.

- Erika J. Dougherty won the first place award in the Student Poster Session (Environmental Division) at the 1990 AIChE Annual Meeting in Chicago.

- Rakesh Bakshi was selected as the first recipient of the H. H. Dow Memorial Student Achievement Award from the Industrial Electrolysis and Electrochemical Engineering Division of the Electrochemical Society.

- Candis S. Claiborn received the Achievement Award in Chemistry from NCSU’s Chapter of Phi Lambda Upsilon.

- Nandan Padukone was selected by the North Atlantic Treaty Organization (NATO) to participate in an Advanced Study Institute in Turkey on the subject, “Recent Advances in Industrial Applications of Biotechnology.”

Undergraduates
- Stephanie A. Schwalm was chosen as the Outstanding Woman Engineering Student in the Sophomore Class by the NCSU Society of Women Engineers.

- The 1989/1990 AIChE Student Chapter, advised by Peter Kilpatrick, was recognized as an Outstanding Student Chapter at the 1990 Annual AIChE Meeting in Chicago.
The Department Today

The Newsletter received some nice compliments from the faculty members that were profiled in the inaugural issue. Several alumni also commented that these profiles were an effective way for them to catch up on changes in the Department. However, a number of students claimed that the pictures were recognizable but the write-ups were distorted, and volunteered to write the material for this issue. By a unanimous vote of the six faculty that are spotlighted here, this offer was deferred. However, student voices will be heard in subsequent issues of the Newsletter.

Here then, accompanied by photographs of scenes around the Department, are sketches of the active faculty members that were not profiled in the last Newsletter.

Rey T. Chern
Assistant Professor

Professor Chern joined the Chemical Engineering Faculty in 1983 after completing his M.S and Ph.D. degrees in the Department. He received his B.S. degree in chemical engineering from National Taiwan University. One of the Department’s most versatile teachers, Rey has taught undergraduate thermodynamics and the two sophomore-level heat and material balances courses, as well as four graduate courses in polymer science.

Rey’s research is aimed at defining the relationships between the structure of a polymer and its performance in a variety of applications, including barrier polymers, contact lenses and photoreists. Much of his current effort is devoted to polymeric membranes for separating mixtures of gases. He is attempting to synthesize new polymers and modify existing ones to create novel membrane structures that provide both high flux and high selectivity.

Rey’s leisure time is devoted to his wife, currently a student at NCSU, and his young son. In addition, Rey is a regular jogger, a serious classical music lover and a weekend gardener. He also has been an orchestral flutist.

Unfortunately for the Department, Rey has recently decided to try his hand at a career in industrial research. He will be joining the research laboratories of Merck and Company in December of this year, but he will continue to be affiliated with the Department as an adjunct professor. His many contributions are greatly appreciated.

Benny D. Freeman
Assistant Professor

Benny Freeman is a native North Carolinian (Hendersonville), who returned to his alma mater in 1989. He received a B.S.ChE. from NCSU in 1983 and a Ph.D. in chemical engineering from the University of California (Berkeley) in 1988. He then spent 18 months as a NATO Postdoctoral Fellow in Paris. His initial teaching responsibilities in the Department have been in transport phenomena, both at the graduate and undergraduate levels, and in the "unit operations" laboratory.

Benny’s research is concentrated in the areas of polymer physics and polymer process modeling. One of his current projects is aimed at determining the effect of very high pressure on the local molecular motions of polymers. Potential applications for this research are in modeling the performance of extruders and injection molders and in understanding the kinetic behavior of high-pressure polymerization reactions. Benny and Hal Hopfenberg are collaborating on another project to study the influence of physical aging on the properties of organic glassy polymers.

Benny’s outside activities include swimming, racquetball, biking and camping. He also practices his French at every opportunity.

H. Henry Lamb
Assistant Professor

Henry is another native son. He grew up in Sampson County and attended NCSU, receiving a B.S.ChE. in 1982. He earned the Ph.D., also in chemical engineering, from the University of Delaware in 1988 and has been on the NCSU faculty since then. At the undergraduate level, Henry has taught chemical reaction engineering, transport phenomena, unit operations and heat and material balances. His teaching in the graduate program has been focused on catalysis.

Henry received a Presidential Young Investigator Award from the National Science Foundation in 1989. His research combines organometallic and surface physical chemistry with traditional chemical engineering to provide a conceptual framework for the design of new materials and processes. Potential applications are in the areas of catalysis, semiconductors and ceramics.

Henry and his wife Linda, also an NCSU chemical engineer, enjoy the outdoors and taking care of their first child, Amy, born less than a year ago. Henry plays basketball regularly on his lunch hour and is known for his aggressive offense, his aggressive defense and his willingness to shoot from anywhere on the court.
The Department benefits greatly from the strong leadership of a trio of senior faculty. Carol Hall (center) serves as Graduate Administrator, which involves recruiting graduate students and advising those in residence. John Setzer (left) is the Associate Department Head and shares such burdens as budgeting, course scheduling and facilities management. Rich Felder heads the Department’s Undergraduate Curriculum Committee.

Richard M. Felder
**Hoechst Celanese Professor**

Rich has many characteristics which give him a unique position in the Department. His current areas of research are wide-ranging. On one hand, he is involved in developing technology for computer-assisted manufacturing of specialty chemicals and for simulation and optimization of chemical processes, usually in conjunction with an interested industrial partner. On the other hand, he has recently been devoting substantial time and energy to applications of cognitive and educational psychology to engineering education.

Rich is the co-author of the most widely used chemical engineering textbook in the world, *Elementary Principles of Chemical Processes*, and he is currently working on the third edition of this book. He won the R.J. Reynolds Award for Excellence in Teaching, Research and Extension in 1982, the AT&T Foundation Award for Excellence in Engineering Education in 1985, and the Chemical Manufacturer’s Association National Catalyst Award in 1989. His undergraduate education in chemical engineering was at the City College of New York, and his master’s and Ph.D. degrees, also in chemical engineering, are from Princeton University. He has been a member of the faculty since 1967.

Rich’s extra-curricular interests include upholding the multilingual tradition of the Department (he speaks fluent Italian and Portuguese), playing the classical guitar, and trying not to let Benny Freeman humiliate him in raquetball.

Carol K. Hall
**Professor**

Carol takes a perverse pride in being “…the only non-chemical-engineer in the Department.” However, one would never know it from watching her in action, teaching the undergraduate thermodynamics sequence. Her degrees are in physics, a B.S. from Cornell University and an M.S. and Ph.D. from the State University of New York at Stony Brook. She worked at Bell Laboratories and taught in the chemical engineering department at Princeton before joining the N.C. State faculty in 1985.

Computer simulations are at the heart of Carol’s research. She applies statistical thermodynamics to gain insight into a variety of chemical engineering problems including thermophysical property correlations for hydrocarbon mixtures, the growth of semiconductor interfaces, the diffusion of gases in zeolites, and polymer-assisted protein precipitation.

Carol is currently hard at work writing a textbook on thermodynamics that she hopes will supplant the aging texts that are currently used. Her extra-curricular interests center around her three children and her husband’s “startup” company, which builds motor controllers.

C. John Setzer
**Professor**

John plays a very active role in the undergraduate teaching program. The Department relies on his industrial perspectives in the two-semester, senior-year design sequence and in the two “unit operations” laboratory courses that are taught in the last semester of the junior year and the first semester of the senior year. John came to N.C. State in 1980 after 28 years of industrial research, development and senior management experience with Monsanto. His work was in the fields of polymers, synthetic fibers and non-woven fabrics, with special emphasis on flame-retardant materials.

For a number of years, John has worked with a regional Gilbert and Sullivan repertory group as a producer, technical director, stage manager and almost everything except actor. His continuing hobby is woodworking, supplemented by raising orchids and playing tennis.

John is the Department’s newest full professor. He was promoted to that rank effective July 1, 1991.

Dr. Robert M. Kelly, who received his Ph.D. in Chemical Engineering from NCSU in 1980, will join the Chemical Engineering Faculty in early 1992. The next issue of this alumni newsletter will profile Dr. Kelly.
The Department was delighted, but somewhat overwhelmed, by alumni response to the first issue of the newsletter. Although two pages of this newsletter are devoted to alumni news, even this space is not sufficient to handle all of the interesting information we received. On the proposition that seniority should count for something, the following section gives priority to the earliest classes, from 1921 to 1979. Younger alumni, please check the boxed item on page 7 and do not despair. The next issue will cover all of the responses from the classes of 1980 and later, plus information that came in too late for this issue or was received in response to this issue.

THE TWENTIES
- Owens Hand Browne (‘21), who resides in Raleigh, was prompted by the Letter to our Alumni in the last newsletter to write and say that he’d seen a lot of changes in “State College” since he entered as the first chemistry major in 1916.

THE THIRTIES
- Wilbert F. Huntley (‘37) recently retired and is living in Monroe, NC. He keeps in touch with three of his chemical engineering classmates, Francis E. Mask, James E. Johnson and W.E. Cheshire.
- William W. Adkins (‘39) “retired” in 1983 and is working part-time as a consultant for Black & Veatch in Greenville, SC.

THE FORTIES
- Wade P. Eagle (‘41) is retired from Union Camp and lives in Savannah, GA.
- J. Albert (Al) Rolston (‘41) visited the Department this May during the 50th reunion of the class of 1941. Al is a Fellow of the AIChE and helped to found its Materials Division, of which he served a stint as Chairman. He has an active consulting practice in Granville, OH, and resides in Newark, OH.
- Dana B. Mattox (‘41) is retired and living in Venice, FL, except during the summer when he calls Balsam, NC, home. Dallas C. Shearin (‘41) and G. Stanley Achorn (‘41) live nearby in Florida. Dana sent along the adjacent photo taken during the annual “inspection trip” in the spring of 1941.
- Robert A. Lewis (‘42) is retired and lives in Arnold, CA.
- John Thomas Rose (‘42) is Environmental Compliance Director for Mineral Research and Development Corporation in Charlotte, NC. He works with C. M. Davis (‘83), S. J. Bartos (‘83) and Keith Warlington (‘86).

THE FIFTIES
- Samuel Clyde Vaughn (‘44) visited the Department in May of 1990 and took the time to write an long letter reflecting on his experiences at North Carolina State and later in industry. He is currently a manufacturer’s representative, living in Orinda, CA.
- Robert C. Hinkle (‘48) retired as Environmental Protection Manager of Alcoa’s plant in Badin, NC, where he still resides.
- Robert A. Baker (‘49) is Chief, Gulf Coast Hydroscience Center, U.S. Geological Survey at Stennis Space Center, MS. In a note, he commented, “It has been satisfying to see chemical engineers increasingly recognize and contribute to environmental issues.”
- Arthur A. Cline (‘49) is retired from Great Lakes Carbon and lives in Lewiston, NY.

THE SIXTIES
- Pierre Lepoutre (M.S. ‘60, Ph.D. ’69) directs research on the coating and printing of paper and on adhesion in paper products for the Pulp and Paper Institute of Canada. He lives in Pointe Claire, Quebec.
- James W. Keistler, Jr. (‘61) formed Keistler Engineering Company of Rock Hill, SC, in 1973. The company does water and sewer...
line design, waste treatment plant design, water analysis and underground fuel tank remediation projects. His son, Robert, graduated from NCSU in civil engineering, and his father was an “original chemical engineer,” graduating in 1930.

- John D. Ellenberg ('63) wrote from Medellin, Colombia, where he is Managing Hill Technical Center. He lives in Goshen, OH.

- Ronald O. Pennsyle ('63) is Acting Chief of the Methodology Team of the Studies and Analysis Division of the US Army Chemical Research, Development, and Engineering Center at Aberdeen Proving Ground. He is involved in modeling and simulation of chemical warfare defense systems, and he resides in Bel Air, MD.

- Ronald Spencer Kellogg ('63) is Vice President for Heritage, Research and Development at the Winton Gamble in his position as Associate Director, Analytical Group, Millipore Corporation.

- Thomas M. Clauss ('64) lives in Baton Rouge, LA, and is Plant Manager for Ciba-Geigy in St. Gabriel, LA. He often sees Tom Gray ('64) who is Plant Manager with Union Carbide in Taft, LA.

- Glenn T. Duncan ('67) lives in Greenville, NC, and works for du Pont in Kinston, NC, along with Bill Moxley ('58) and several other ChE alumni.

- Michael D. Killian ('68) is Vice President and General Manager of the Petrochemical Division of Ashland Chemical Company, a subsidiary of Ashland Oil Company. His home is in Dublin, OH.

- James Bray ('69) lives in Acton, MA, and is a Senior Production Engineer at J. M. Huber Corporation’s Chemicals Division plant in Etowah, TN.

- Randy Lassiter ('74) is located in Richmond, VA, which is also the home of Chemical Supply Industries, a water treatment company that he founded in 1985.

- Clifford Yi-der Tai ('74 Ph.D.) is a professor in the Department of Chemical Engineering at National Taiwan University, Taipei, Taiwan, ROC.

- James C. Hobbs ('75) received an MBA from UNC-Chapel Hill in 1980 and currently works for Carolina Power & Light along with Paul Bauer ('77), Alex Hobbs ('69) and L. K. Burnette ('82). Jim lives in Raleigh.

- James E. Reece ('75) lives in Athens, TN, and is a Senior Production Engineer at J. M. Huber Corporation’s Chemicals Division plant in Etowah, TN.

- Dale St. Denis ('76) is Manager, Business Development, Automated Systems Division of Rust International in Birmingham, AL, where he also resides.

- Carson Carmichael, III ('76) lives in Raleigh where he is a partner in the law firm of Bailey & Dixon, practicing in the areas of administrative and regulatory law (environmental, energy and licensing) and civil litigation. He regularly sees Tom Godbold ('66, Ph.D.), who teaches at Vanderbilt University, and Joel Monteith ('77), who is with Proctor & Gamble in Cincinnati.

- Marty Dwayne Wakefield ('79) lives in Matthews, NC, and works for Vining's Industries, Inc. selling chemicals, primarily to the pulp and paper industry. His territory is western NC and central and western SC.

**THE SEVENTIES**

- Carlos A. Arensburg ('71) is based in Medellin, Columbia, where he is Managing Director of Griffith Columbia S. A., a subsidiary of Griffith Laboratories, USA, Inc.

- Frank Louzek ('72) is a Senior Engineer with United Engineers and Constructors in Philadelphia, PA. He lives in South Orange, NJ.

- Lanny C. Treece ('73) is one of a large number of ChE alumni working for Eastman Chemicals Company in Kingsport, TN. He was one of the attendees at an informal alumni get-together organized by Victor Agreda ('75) when George Roberts, the Chemical Engineering Department Head, visited Tennessee Eastman in June 1990.

- John D. Ellenberg ('63) wrote from Medellin, Colombia, where he is Managing Hill Technical Center. He lives in Goshen, OH.

- Thomas M. Clauss ('64) lives in Baton Rouge, LA, and is Plant Manager for Ciba-Geigy in St. Gabriel, LA. He often sees Tom Gray ('64) who is Plant Manager with Union Carbide in Taft, LA.

- Glenn T. Duncan ('67) lives in Greenville, NC, and works for du Pont in Kinston, NC, along with Bill Moxley ('58) and several other ChE alumni.

- Michael D. Killian ('68) is Vice President and General Manager of the Petrochemical Division of Ashland Chemical Company, a subsidiary of Ashland Oil Company. His home is in Dublin, OH.

- James Bray ('69) lives in Acton, MA, and is a Senior Production Engineer at J. M. Huber Corporation’s Chemicals Division plant in Etowah, TN.

- Randy Lassiter ('74) is located in Richmond, VA, which is also the home of Chemical Supply Industries, a water treatment company that he founded in 1985.

- Clifford Yi-der Tai ('74 Ph.D.) is a professor in the Department of Chemical Engineering at National Taiwan University, Taipei, Taiwan, ROC.

- James C. Hobbs ('75) received an MBA from UNC-Chapel Hill in 1980 and currently works for Carolina Power & Light along with Paul Bauer ('77), Alex Hobbs ('69) and L. K. Burnette ('82). Jim lives in Raleigh.

- James E. Reece ('75) lives in Athens, TN, and is a Senior Production Engineer at J. M. Huber Corporation’s Chemicals Division plant in Etowah, TN.

- Dale St. Denis ('76) is Manager, Business Development, Automated Systems Division of Rust International in Birmingham, AL, where he also resides.

- Carson Carmichael, III ('76) lives in Raleigh where he is a partner in the law firm of Bailey & Dixon, practicing in the areas of administrative and regulatory law (environmental, energy and licensing) and civil litigation. He regularly sees Tom Godbold ('66, Ph.D.), who teaches at Vanderbilt University, and Joel Monteith ('77), who is with Proctor & Gamble in Cincinnati.

- Marty Dwayne Wakefield ('79) lives in Matthews, NC, and works for Vining’s Industries, Inc. selling chemicals, primarily to the pulp and paper industry. His territory is western NC and central and western SC.

By now, it should be obvious that Chemical Engineering at NCSU likes to brag about the students and faculty in the Department. We also like to brag about the alumni, so keep us posted!

- Phillip R. Westmoreland ('73), an Assistant Professor of Chemical Engineering at the University of Massachusetts, received the 1990 General Electric Outstanding Teaching Award and was named a 1990 Presidential Young Investigator.

- R. Russell Rhinehart ('85, Ph.D.), an Associate Professor of Chemical Engineering at Texas Tech University in Lubbock, TX, received the Excellence in Documentation Award presented by the Instrument Society of America to recognize an outstanding article in the field of measurement or control.

- Harold G. Monbouquette ('87, Ph.D.), an Assistant Professor of Chemical Engineering at the University of California (Los Angeles), received a Department of Energy Environmental Restoration and Waste management Young Faculty Award.

The Department congratulates Phil, Russ and Hal on their professional achievements.

---

**Caldwell-Seely Scholarship Fund**

As noted in the last issue of the newsletter, a scholarship fund has been established to honor Frank Seely and to recognize his many contributions to the University. The Seely family has asked that contributions in remembrance of Frank be directed to this fund. Many alumni, faculty and staff contributed to the fund when it was first established and most alumni recently received a solicitation from the NCSU Alumni Association.

Please consider making a generous contribution to the Caldwell-Seely Scholarship Fund in recognition of Frank, and use your company’s gift-matching program if one is available. Contributions should be sent to: The J. Frank Seely Scholarship Fund, NCSU Alumni Association, North Carolina State University, Box 7503, Raleigh, North Carolina 27695-7503.
Alumni Information - Fall 1991

Name ___________________________ Class/Degree __________________
Home Address ____________________________________________________
Work Address _____________________________________________________

Tell Us About Yourself (What are you currently doing? What other CHE alumni do you work with or see? etc.) ____________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Please Return this Form to: Dr. George W. Roberts
Department of Chemical Engineering
Box 7905
North Carolina State University
Raleigh, NC 27695-7905

North Carolina State University is committed to equality of educational opportunity and does not discriminate against applicants, students, or employees based on race, color, national origin, religion, sex, age, or handicap. Moreover, North Carolina State University is open to people of all races and actively seeks to promote racial integration by recruiting and enrolling a larger number of black students. 3,000 copies of this public document were printed at a cost of $1,000.00.