

STATION NEWS

ENGINEERING EXPERIMENT STATION • GEORGIA TECH



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MARCH, 1979

Occupational Safety and Health Program in Progress

An important EES program designed to help Georgia employers meet occupational safety and health standards was implemented March 1, and by the middle of March some 58 inquiries and requests had already been received, according to TDL's **Bill Howard**, project director.

Howard explains that under the U.S. Dept. of Labor-funded one million dollar program, Georgia business and industry can receive, upon request, free and confidential assistance. Focal points are: identifying safety and health hazards in the firm's place of work; understanding the requirements of federal occupational safety and health laws and regulations; and successfully eliminating or controlling these hazards. Assistance is aimed at providing a safer work place for employees, thereby reducing accidents and saving lives. This would, in turn, reduce insurance costs and also reduce the likelihood of fines from OSHA as well as increase profits for business and industry.

Trained safety and health consultants, working from the Georgia Tech campus and the eight area offices around the state, will make consultation visits, the scope of which depends entirely upon the requesting employer. Assistance may range from solving a specific safety or health problem to providing an in-depth safety and health survey of an entire company.

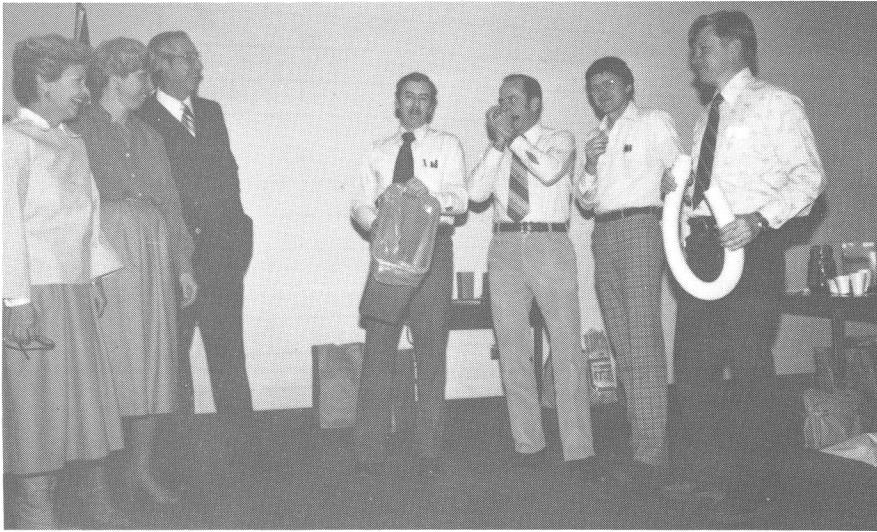


Project Director Bill Howard talks with Abit Massey, director of the Georgia Poultry Federation about the new brochure describing the EES occupational safety and health project.



In the midst of brochure dissemination procedures is TDL's Rachel McCain, staff assistant to the project.

Betty Jaffe Leaves EES



Joining in a farewell tribute to Betty Jaffe (second left) are: longtime co-worker friends Margaret Textor, Gordon Harrison and the Squalid State Band.

After 18 years of loyal and enthusiastic service to Georgia Tech, **Betty Jaffe** resigned from EES as of March 7 and left her position as administrative secretary to **Gordon Harrison**, ASL director. She will be remembered as a unique and irreplaceable person and personality.

At a farewell potluck luncheon given in her honor at the Baker Building, Betty's many associates over the years found it difficult to express adequately the sentiments of what she meant to so many individuals. Perhaps Harrison said it the best it could be said with "We'll miss her."

One highlight of the occasion was an unusual serenade by the Squalid State Band, composed of: **Charlie Rucker**, hoarmonica (melody); **Jerry Hill**, vacuum hose (tuba duba doo); **Mike Harris** on the trash can (percussion); and **Earl Meeks**, fingerwhistle (flesh winds). The unbelievably melodic selections were: "Stars and Stirrups Furever" and "I Come from Alibama."

Everyone wishes Betty many successes in her venture as personnel counselor with the Mitchell Kot Personnel Services, Inc., located at Century Center.

EES Energy Displays and Speakers Requested for Fair

An Energy Fair will be held at the Student Center Friday, May 4, the day after Sun Day celebrations, and EES has been invited to participate by displaying energy projects and by speaking. SPEAC (Students Promoting Energy Alternatives and Conservation), a Georgia Tech organization, is sponsoring the event. For further information and verification of participation, contact the EES Publications Office or the SPEAC publicity chairman, Bill Arthur, at 872-2509. Arthur says he needs two or three EES energy enthusiasts for speakers and several displays.

Flower Fund Needs Support

The EES flower fund needs financial support or, according to R&P, there will not be sufficient funds to extend through this June. The fund provides a source of money immediately available for flowers or donations — upon the death of a staff member or any member of the immediate family and also upon hospitalization of a staff member or spouse — but not used for hospitalization during routine tests, minor surgery or childbirth. Staff is urged to send contributions to R&P, c/o **Deborah Parmenter**. Less than one-fourth of the staff has contributed to the fund for the current fiscal year.

ASL News

The Analytical Services Branch will soon have one of the most advanced scanning electron microscopes in the Southeast, according to **John L. Brown**. The new instrument features a lanthanum hexaboride electron source and solid-state electronic circuitry. Samples may be examined at very high magnification and analytical results will be obtained in less time than with the old instrument.

The solar energy team is progressing in its mission, and **Tom Brown** of ASL says that the Francia receiver was returned to the tower March 19. The first time around with the beehive-shaped receiver, the facility was run as a solar steam plant but without the instrumentation necessary to completely characterize the performance of the steam generator. This time, EES researchers will operate it under both design and off-design conditions and will measure the efficiency of the receiver.

Service Groups

Tom Jones recently attended a meeting of the Interservices Committee on Technical Facilities at Florida Atlantic University in Boca Raton.

Greg Vaughn, **Susanna Gillespie**, and **Pat Corbin** are new technical typists in the Report Section of the Reports & Procedures Department.

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RAIL News

Steve Zehner of the ESM Division traveled to Naples, Italy, February 5 and 6, met with representatives of Carrier Task Forces 65, 66, 67, and 69 and gave briefings on the EMPLR technique. He went from there to Sardinia and met with the captain and ESM operators on the Baton Rouge where they discussed the EMPLR technique and resolved some calibration problems. On the 14th he traveled to Florence, and on the 15th he met with SMA Corp., which is a radar systems design, development, and manufacturing company and supplies the AN/SPS-63 to the U.S. Navy. The only real difficulty occurred on the return trip when New York and Atlanta airports were closed by snow, fog and fire, and he had to spend a night in Montreal in the Hyatt Regency with dinner and room paid for by the airline.

Don Sanford is now 40 years old! A Geritol-punch party was held at the Cobb County Research Facility in honor of Mr. Sanford's demise.

New employees at RAIL/-ESMD are: **Tim Strike**, Res. Tech. I; **Dinal Andreassen**, Res. Eng. I; **Lee Stillman**, Research Eng. II; **Dr. Gary Lunsford**, Sen. Res. Scientist; **Jeff Hopper**, Res. Eng. I; **Pete Michalovic**, Draftsman; **Rick Schleicher**, Draftsman; and **Gary Price**, ET III.

A recent addition to the co-op ranks is **Scott Wills**, freshman at Ga. Tech. In addition, two Southern Tech co-ops, **Lonnie Hatcher** and **Barry Crowe**, have begun work in ESMD/CCRF this quarter.

Nick Currie, **Brian Hudson** and **Rick Marucci**, traveled to Panama City, Florida, in February to brief the Naval Coastal Systems Center on the technical progress of the Target Detection Unit Development and to partake of the seafood smorgasborg at the Treasure Ship.

Jim Scheer attended a management seminar in Miami on how to become a more efficient manager. The first lesson covered was "A good manager does not waste his time attending seminars."

An Equal
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Bob Trebits, **Nick Currie** and **Fred Dyer** attended a NATO RSG-8 group meeting at Dahlgren, Virginia, on February 13-15. In addition to discussing the upcoming NATO joint sea clutter experiment, a very interesting time was had at "The Happy Hour" listening to English, German, French and Dutch phrases being spoken between sounds of steamed shrimp being ravenously devoured.

Connie Ritter and **Gary Peckham** were the women's and men's division winners of the CS&T (Computer Science & Technology) Racquet Ball Round Robin Tournament. Play has shifted to a ladder-style perpetual contest, still managed by **Gus Baird** under athletic director Connie Ritter's supervision, and all RAIL employees are invited to compete.



TDL News

Meetings and presentations included attendance by **Hardy Taylor**, **David Clifton**, **Ed Bethea** and **Bruce Eelman** of the Economic Development Division at the White House Conference on Small Business held at the Peachtree Plaza Hotel in Atlanta on Feb. 15 and 16. Bethea was selected as a delegate to the National Conference in Washington, D.C., to be held in January, 1980.

Dan O'Neil was named to a committee of the National Academy of Sciences Board on Science Technology for International Development. The committee will be publishing a report which will identify appropriate energy conversion technology for developing countries.

Tze Chiang of the Economic Development Division, attended a meeting at the World Congress Center in early March to discuss "The People's Republic of China and the U.S.: A Primer on Developing Trade Relations." Chiang also presented a paper on "The Feasibility of Converting Southern Hardwoods to Newsprint," to the Newsprint Division Meeting of the American Paper Institute, Inc., in New York City, March 12.



Resignations: **Bill Studstill**, head of the Industrial Energy Extension Service, has resigned in order to join Southern Solar, a new solar regional development center for a 10-state southeastern area. Bill will be headquartered in Atlanta.

Randy Mattison of the Energy and Engineering Division has accepted a position with the Chicken of the Sea division of Ralston Purina in San Diego, Calif.

Guillermo Hoyos of IEES, has resigned to return to his home in Bogota, Columbia, S.A.

New Personnel: With the new Georgia Tech On-Site Safety and Health Program, **Ken Smith** and **Phil Williams** are in the Atlanta office; **Gene Smith**, Rome Office; **Mike Casheo**, Savannah Office; and **Jeff Carlisle**, Augusta Office.

In the Energy and Engineering Division additions are: **George Bataglia**, **Roger Chelf**, **Gary Richardson**, **Craig Wyvill**, **Anthony Jape** and **Mike Brown**.

Joan Meeks, recently of Washington, D.C., is the new senior secretary in Basic Data.

Dan O'Neil and **Alton Colcord** presented a review of their alcohol fermentation project at a DOE contractors' meeting at Rutgers University, Feb. 7-9. A 3-ton per day fermentation facility is expected to be constructed on campus later this year in conjunction with the fermentation project. Thanks, guys!

Jim Knight, **John Murphy** and **Ray Kovac** recently visited with divisions of the DOE in Washington. Knight and Murphy, along with **David Wade**, also attended a meeting in Dalton, Ga., to discuss the results of a study on converting industrial waste to energy.

Bill Moran of IEES, passed his P.E. exam in February.

Chickens Passed First Winter Test

Wood-heated chicken houses could be the latest thing on the agricultural scene.

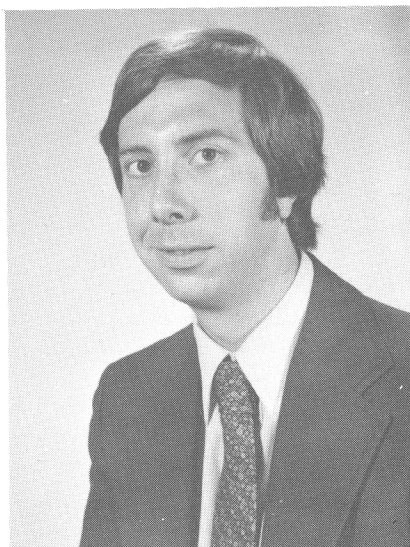
Working with funds from the Georgia Department of Agriculture, EES engineers have shown that wood can provide an excellent alternative to the conventional fuels now used to heat poultry growout houses.

Propane, a non-renewable and sometimes hard-to-get resource, is the predominant fuel presently used to heat buildings for raising chickens. It is the rising cost of this fuel and the resulting slimmer profit margins for the farmers that are behind the move to find an alternate fuel, according to **Richard Combes**.

This past winter provided the first cold weather test for a wood-fired furnace that was installed last summer in a growout house in Carrollton, Ga. The wood-heating system was a success.

"Two flocks raised this winter were heated with warm air from the wood furnace," Combes explained. "The first flock, which was shipped to market on Dec. 17, was heated 100 percent with wood-heat. No propane at all was used. The second flock, shipped two months later in February, was heated 75 percent with wood heat and 25 percent with propane." Each flock consisted of about 16,200 birds.

National Weather Service figures show that the area of north Georgia around Carrollton experienced temperatures during the winter in the low teens with the lowest about 6 degrees Fahrenheit in January. It was during these extremely low temperatures that the wood furnace had to be backed up with propane.



Combes is optimistic that by adding insulation or caulking to the building, gas won't be necessary even at the really low temperatures.

The success of this experiment with wood energy is particularly important for Georgia because of the availability of large quantities of wood waste in the state, primarily from sawmills and logging operations.

According to Combes, recent figures show that there are 120 trillion BTU's of wood energy available per year in Georgia. This is enough energy to heat, for one year, all of the homes and commercial businesses now in the state. Additional calculations show that only 2.8 trillion BTU's would be required to heat all of the 4,500 chicken houses in Georgia for one year.

Georgia Tech received assistance on this research project from the Georgia Poultry Federation, which represents the state's poultry industry.

STL — Spring Springs at Cobb

According to **Dorothy Brown** of STL, lunchtime activities at the Cobb County Facility seem especially inspired by wide lawns, woods, a lake and other natural assets abundant at this rural location. Innovative leaps while catching frisbees is a new capability, apparently, of the design services crew of the Systems Development Division.

In response to **Toni Crowder's** memo, about 20 energetic bodies turned out for twice-weekly sessions in an activity billed as "exer-dance." At last report, the females outnumbered the males nineteen to one! For those with more sedentary inclinations, picnicking at the lake and feeding the ducks can be pleasant.

French Speaker Needed

The National Academy of Sciences needs an excellent French speaker with energy expertise to participate in an intensive energy review mission to Senegal in the period, May 14-20, 1979. For details, contact **Dan O'Neil**, Chemical and Material Sciences Division, 428-2183.

IPO News

IPO has been awarded a \$25,000 contract expiring Sept. 30 to complete work on the AID Ghana pyrolysis demonstration project. **Clint Stone** is project director, and **Frank Malvar** will be responsible for on-site engineering activity.

IPO also has negotiated a \$18,600 continuation to Oct. 31 of its Basic Ordering Agreement with the Central American Research Institute for Industry (ICAITI). Under this agreement, IPO provides technical services in support of ICAITI's technology transfer program for small industry on a task-order basis. **Dick Johnston** and **Nelson Wall** are working on this project.

Ross Hammond, IPO director, will be part of an eight-man high-level mission to Bangladesh June 15-July 15. UNESCO is sponsoring the consultant mission, which will make an in-depth study of current national science and technology capacity and institutional needs, as well as identify science and technology-oriented development problems.

Ben James, Industrial Extension Div., is in Korea February 26-April 5, providing management and technical assistance to client firms of the Korea Credit Guarantee Fund (KCGF). On March 25-29, IPO hosted Jai Chull Chung, chairman and president of KCGF, and Youn Jai Kim, its executive director, for the purpose of negotiating a one-year extension of the project. The second year's emphasis will be on training KCGF staff members in industrial extension techniques.

Other news of a different nature includes: **Martha Ann Stegar** took a 10-day vacation trip to Israel in February; **Kathy Finkelstein** is the mother of a baby girl born January 27; and **Margaret Textor** has a new grandson, born in December.