The Audit

One way Temple-Eastex found the competitive edge through Operations Research

See story page 10
News

Diboll, Thomson convert to industrial particleboard

Conversion measures to improve the particleboard product manufactured in the Diboll and Thomson, Georgia, plants to an industrial grade board have been completed.

John McClain, particleboard operations manager, said that steaming screws, additional refiners, micromotion resin flow meters, weight scales and blenders have been added in both plants "in order to upgrade the board to an industrial grade product."

McClain predicted that product volume will increase from 20 percent to 50 percent by the end of the year at the Diboll facility, and to at least 75 percent industrial product by the end of the year at Thomson.

Underlayment markets have decreased in the United States over the past few years. As a result, Temple-Eastex officials made the decision to convert the existing plant to accommodate production of an improved product with industrial uses.

"In the past," said McClain, "we were underlayment manufacturers, making a product for a two-floor system, essentially doing away with underlayment particleboard. We've seen the market deteriorate over the years. What we are doing is getting into a more stable market."

"Industrial particleboard, which is used mainly in furniture, kitchen cabinets and associated industries, requires machinability as well as an improved surface."

On the marketing end, Jack Beene, product manager — particleboard and oriented strandboard, said prices of the Temstock (industrial particleboard) are more consistent than particleboard underlayment.

"Industrial board is less effected by the volatile housing market," he said. "In order to maintain strength in the market, we made the conversion to a higher grade product."

Year difficult for industry

Depressed prices in basic commodities, imported Canadian lumber and a strong U.S. dollar have all combined to make 1985 a difficult year for the Forest Products industry. Lumber and plywood markets reflected both rising Canadian imports and the impact of oriented strandboard on traditional plywood applications. Bleached paperboard prices were depressed by added domestic capacity and imported products that all but eliminated export markets.

Temple-Eastex Incorporated's earnings of its Building Products Division saw a drop from $9.5 million in last year's third quarter to $6.0 million in 1985. Bleached paperboard in the company's Pulp and Paperboard Division earned $4.3 million, compared with $14.5 million in last year's third quarter.

David Ashcraft, group vice president — Pulp and Paperboard Division: "U.S. paperboard capacity has grown 4 percent in the past year and will expand an additional 6.6 percent in the next two years. We, and all producers, are fighting for market share. With a slow annual growth rate in the domestic economy, we are looking at another year or 18 months of very heavy price competition at home and overseas.

Cost containment and new technology are now in place to keep our competitive edge in what may well be another difficult year."

Russell E. Chase Jr., senior vice president, marketing — Pulp and Paperboard Division: "A slower domestic economy and strong U.S. dollar have seen paperboard production fall more than 6 percent compared to a year ago. Much of this decline can be traced to a 23 percent decline in the production of kraft paperboard for export. The strength of the U.S. dollar has made it easier for other countries to fill the orders that used to belong to us."

Harold C. Maxwell, group vice president — Building Products: "Housing starts and low mortgage interest rates produced a high volume of production in 1985. However, Canadian lumber imports and an oversupply of panel products severely depressed prices. The 'housing boom' we have enjoyed in the Southwest is now redirecting its momentum east of our traditional markets. This has changed our market focus affecting mill prices, in order to serve more distant customers and expand our customer base for our new operations. We, even with this change in market strategy, that next year will mirror 1985."

Joe K. Sample, vice president, marketing — Building Products: "The one bright spot in an otherwise lackluster year has been the strong demand for gypsum wallboard. High demand in the North and Southeastern markets has seen prices move higher. Building activity in the Northeast has seen a steady demand for oriented strandboard from our plant in New Hampshire. Regionally, housing activity should increase in all areas except the South in 1986."

Temple-Eastex is in a better position than many of its Forest Products competitors because of the company's cost containment measures and the millions spent to modernize facilities. Aggressive marketing in areas outside of the traditional Southwest base have proved gainful.

BP Sales markets two new products

A new 1/2" lap hardboard siding and a decorative hardboard panel are two new products being marketed by the Building Products Sales Division.

PointFive series is thicker than the standard siding offerings, and as a result, is more durable with more pronounced shadow lines. Because it is factory primed, PointFive has superior paint retention qualities. It is offered in Colony 104 and Cedar Gap patterns.

Shadowround is a unique hardboard panel with a cedar texture. A full seven inches of its rounded ends are exposed when applied. Shadowround is suitable for the whole range of architectural styles, from Victorian to contemporary.

OSB renovations nearing completion

Renovations at the Claremont OSB plant are proceeding as scheduled with most major equipment purchases completed.

A disc flaker, shaker screens, the log yard debarker and the first of two dryers are expected to come on line November 10. Shortly thereafter, buildings will be erected in some areas of the plant site.

Completion of the renovation project is expected December 10 with the second dryer and two drum blenders coming online at that time. About 50 people from the general contractors are on site, working six days per week. After November 10, the crews will begin 10-hour days, six days per week to expedite project completion.

"We've encountered no major surprises," said Jack C. Sweeny, vice president-operations, Building Products. "This is a rather complicated modification program because of space constraints and the delays involved in tearing out old equipment."

Sweeny added that a one-week operational shutdown is expected at some future date.
Representing each of the five departments at the West Memphis, Arkansas, Gypsum Operations are (from left) Cliff Beith, truck shop mechanic; W.C. Hailey, fork lift operator; Stanley Clark, miscellaneous lead operator; Kevin Duncan, storeroom keeper; Ezel Brown, plant mechanic and Wayne Johnson, lead mechanic. The men are posed around new kiln doors, in which the plant is in the process of replacing.

New system set in motion

A new, more efficient computer-based Payroll/Personnel system is currently being implemented for all Temple-Eastex and Financial Services operations. The first phase of implementation for the payroll system is being completed in several stages extending to January 1, 1986.

Jack H. McCuistion, corporate controller, said, "The new system will eliminate the present obsolete payroll programs and systems and provide for centralized, automated processing of payroll, personnel and employee benefit information on a corporate-wide basis."

The basic system, purchased from McCormack and Dodge, provides the flexibility to replace all of the present multiple systems which process payroll for approximately 5,000 hourly and salaried employees of Temple-Eastex and Financial Services.

Mary C. Steele, manager - Employee Benefits, noted that the system features the ability to revise payroll functions in a more timely and efficient manner as updates become necessary.

"We must be in a position to more readily adapt to changes that affect our payroll and benefits programs," said Mrs. Steele. "With the new system, we can now be postured to consider programs which heretofore were beyond the capability of our old systems."

"Procedure manuals for users and operators will document the manner in which payroll functions and personnel policies are to be administered in a consistent manner for each employee group," said Mrs. Steele.

McCuistion noted that, although the basic system package was purchased, "thousands of man hours have been expended during 1985 by a Temple-Eastex Human Resource project implementation team consisting of Franky Berryman, Mary Steele, Ellon Hines, Herb George and Damon Fickle."

Claire Croston, with the management consulting group of Ernst & Whinney, is project manager for implementation. Myron Lutz and Eddie Martin, also of Ernst & Whinney, are participating throughout the project.

Both Jim Havard, Temple-Eastex assistant personnel manager, and Vivian McNeil, APCO corporate personnel administrator, are directly responsible for the system's operation within their respective departments which are primary users.

Employees will receive notices over the next several months as subsequent phases of the Payroll/Personnel system are implemented. "The new system has one basic purpose, and that is efficient service to the employees of the company," concluded Mrs. Steele.

Energy improvements reach final stages at W. Memphis plant

Major energy conservation improvements at the West Memphis, Arkansas, gypsum wallboard plant are in the final stages of completion, according to Bill Oates, gypsum operations manager.

Process control equipment for the calcining operation was improved, and emissions are below state levels, said Oates. In the calcining process, raw gypsum rock is processed into stucco, the base material for making wallboard.

Oates attributed the success of major changes to "the interest and hard work of everyone involved."

"We are proud of the achievements here," Oates said. He pointed out that major gains have been achieved in the quality and consistency of the board.

"The plant ran through Labor Day in order to meet the demands of our customers," Oates added. "The entire West Memphis group should be commended for our success there."

Temple-Eastex payroll and personnel employees who participated in one of several training sessions for payroll changes included the following: (seated) Claire Croston, Joyce Evink, Angie Guidry, Deb Carroll and Anita Reese. Also (standing) Jim Havard, Laura Craig, Cathy Shevlin, Bonnie Warr, Vivian McNeil, Bonnie Davis, Irmie Snowden, Pam Henson, Anita Hamilton, Ellon Hines.
Dry, hot weather expedites progress on Fletcher plant

The weather in Fletcher, Oklahoma, was dry, hot and windy through September, and David Kellam, gypsum special projects manager, was glad. The nice weather enabled construction crews to progress from putting in grade beams to hanging siding on buildings, all within a 52-day period.

Record rainfall this spring and early summer hampered the gypsum wallboard plant construction, but process equipment, including the first shipment of C.E. Ersham board-forming equipment was being received by early September. In addition, the Flakt dryer on-site representative arrived in September to begin installing that major piece of equipment.

Public Service of Oklahoma (PSO) has put in the sub-station which will deliver power to the plant. Water well drilling and concrete paving work continues.

Reduced breakage improved recovery expected of sorter

Reduced breakage and improved recovery are expected of the recently installed Hemco sling sorter at Diboll's Lumber Operations.

Some start-up woes were experienced in early October, but John Turner, Diboll Lumber Operations manager, says that the sorter will improve recovery through easier handling of lumber.

The sorter picks lumber off the green chain. Electrical impulses scan each board to determine its width, length and thickness, and then route it to its appropriate bay. Boards are then bundled in each of the 45 bays.
Monroeville celebrates 6-yr. record

Employees of the Monroeville, Alabama, particleboard plant were honored September 7 for completing their sixth year without a loss-time accident.

Plant Manager Chris Russell told the group that 1.5 million man-hours were clocked as accident-free. John McClain, particleboard operations manager, said that "no single operation has come close to this."

Jack C. Sweeny, Building Products vice president-operations, congratulated the assembly on their impressive record. He then presented an assessment of market activities and current Temple-Eastex plant renovations.

Employees were treated to a buffet luncheon of bar-b-que and seafood gumbo prepared by Monroeville employees Johnny Womack, Glenn Bayles and Cliff Farish.

Awards presentations followed the luncheon.

Gumbo cooks at the Monroeville safety awards luncheon included Johnny Womack, safety director; Cliff Farish, maintenance superintendent; and Glenn Bayles, sales coordinator.

Pineland benefit aids employee

Employees at the Pineland Operation have a reputation for rallying to the needs of people in times of hardship.

Before Live Aid or Farm Aid, there were people like Buckshot Ferguson, Esters Welch, Art Smith and Dick Joy who, after becoming aware of someone's need, try to organize efforts to help out.

Such was the case this past August when Ferguson, who is a Baptist minister as well as shop supervisor in Pineland, learned that one of his church's members was terminally ill.

Temple-Eastex employee Pat Malone Clark, a 36-year-old mother is suffering not only from a debilitating illness, but from massive medical bills.

A softball tournament, organized by Esters Welch, chip mill supervisor, was held on August 16-17 and approximately $950 was raised.

Then on August 24, Ferguson and Art Smith, chip mill maintenance, helped put on a gospel singing and auction to benefit Ms. Clark. Dick Joy, chip mill maintenance supervisor, and Ricky Clark, plywood plant green end production supervisor, cooked bar-b-que for both events. Gilbert Burch, chip mill oiler, and his band provided country/western music.

No entrance fee was charged, but a love offering for the family was requested. The benefit raised $2,600.

Ferguson reports that about $4,000 has been contributed so far, including church donations.

"Everyone we talked to was willing to help in some way," said Ferguson.

Pat Malone Clark and daughter Lori Nichole. Pat also has four sons: Greg, Todd, and twins Chad and Brad.
Pineland Day garners over $100,000 for area

Pineland Day 1985 may have come and gone, but it won't soon be forgotten. Hailed as one of the greatest fund raising events in the town's history, the event raised over $100,000 among the four sponsors and their candidates.

Angie Seago, representing Temple-Eastex Supply, Power and Electric and the Chip Mill was crowned Pineland Day queen after raising $33,039. Stacie McNaughten, the Pineland Merchants candidate, was first runner-up with $33,003. Temple-Eastex's Plywood Division candidate, April Welch, was second runner-up with $21,239. Tamara Crook, Temple-Eastex's Forests Division, Office and Shop representative was third runner-up with $11,198.

Pineland Day Chairman Tommy Smith, Temple-Eastex wookey superintendent, said, "I've been here since the 1961 Pineland Day, and I've never seen groups more active than the four this year."

Several community and civic organizations will benefit from the proceeds: Katherine Sage Temple City Park; Pineland and Bronson Fire Departments; the Dixie Youth Baseball League; West Sabine ISD Elementary School, Athletic Department and Band; Arthur Temple Library and the Pineland Service Club.

Darryl Stanley thinks North Boggy Slough is an ideal wildlife management area. Not many people will argue with him.

For four years, the company's 7,200 acres in Houston County have been subjected to intensive wildlife management headed by Stanley, Wildlife Department manager, and biologist Bill Goodrum. North Boggy demonstrates, according to Stanley, that "you can manage wildlife and timberland and maximize both of them."

In the North Boggy annual report, the success of the program is evident. Last year saw the largest harvest ever with 139 deer harvested as compared to 134 in 1983; 90 in 1982; and 66 in 1981. Of those deer harvested in 1984, 50 percent were spiked and 50 percent were forked compared with 60 percent spiked and 40 percent forked in 1983; 100 percent spiked and zero percent forked in both 1982 and 1981.

Lactation rates (does in milk) showed that 74 percent of all doe had been nursing fawns in 1985, holding the level achieved in 1984, but a 33 percent increase over 1981 totals. This figure indicates productivity.

Improvements in deer weights and antler quality indicate that the deer are receiving better nutrition. Stanley explained that by controlling the number of deer and by planting supplemental food plots, the deer receive better nutrition than on a native range. The antler rating \[(\text{beam length} + \text{inside spread} \times \text{circumference}) + \text{points}\] improved to 126.06 in 1984 over 105.58 in 1983; 93.88 in 1982 and 65.55 in 1981.

North Boggy hosts 14 hunts each year. Last year, 67 percent of the guests killed a deer and 39 percent killed a hog. Even with better than half of the guests killing deer, the population continues to grow.

"North Boggy is the first place I've ever seen triplet fawns. We have to take more deer each year. We hope to reach the point where we can maintain stable population of quality deer," said Stanley.

Stanley emphasized that his department is working toward this kind of wildlife management on all Temple-Eastex clubs. The company has some 385 hunting clubs throughout its 1.1 million East Texas acres. Though these clubs are under management, they are not subjected to the intensive management of North Boggy.

"Our job is to provide technical assistance to the hunting club on how to better manage our wildlife resource. We are trying to teach clubs to do this type of management themselves," he said.

The Wildlife Department expects an increase in the number of deer harvested this season.

For Sabita Reddy...

Move prompts career switch

Sabita Reddy says that a difference in economics in America prompted a career change involving 143 additional college hours in the past four years.

Sabita, who is a staff accountant at the Diboll complex, obtained her bachelor's degree in 1975 and master's degree in 1977, both in science from Osmania University in India.

"Everyone goes into the science fields there. Business jobs do not exist, but research-related jobs do," she explained.

In 1978, she met and married her husband, C.A. Reddy, who was visiting Sabita's hometown, Hyderabad. After moving with her husband to the Central/Pollok community, Sabita found that career opportunities in her field of study were few. In fact, she decided the only way to put her science degree to work was to become certified to teach it.

So, in eight months, Sabita took her science degree and teaching certification from Stephen F. Austin State University and hit the road in search of teaching positions. Unfortunately, after brief stints in Corrigan and Wells, she decided she needed different career challenges than teaching had to offer.

She enrolled again in SFASU and took courses in computer science and accounting.

"The interest started when I took the accounting courses," she said, and in the fall of 1979, Sabita began her third degree, this time in accounting.

Sabita received her bachelor's degree in business administration in December, 1982. This past August, she passed her CPA examination after taking her two-week vacation to study for the test.

Four years and two children after beginning her career search in East Texas, Sabita will enroll this spring in courses toward a master's degree in business administration.

Sabita Reddy, who is a certified public accountant will begin work on her master's degree in business administration this spring. She is a staff accountant with Temple-Eastex in Diboll.
Classes will prepare Evadale group for new boiler start up

Training classes for the utility plant operation of the new $50 million boiler and turbine generator project at Evadale's Pulp and Paperboard Division are winding down in anticipation of its start up in mid-December.

Herb Couture and Greer Parr of Utilities supervising group are sharing the responsibilities of instructing the group who will man operations of the utilities department which is being expanded with an additional boiler and turbo-generator. Classes have been under way since September. To date, over 64 hours of instruction have been given to each participant. An additional 16 hours are left to complete, as the various units are brought into service.

The boiler and turbo-generator control room houses sophisticated computers and monitoring systems whereby employees can keep tabs on the facility’s various functions. The computer console, with duplicated keyboards, is capable of controlling the department’s actual day-to-day functions, such as starting motors, opening and closing valves and controlling steam and electrical production rates.

The operator can also record trends within the system and the plant’s demands on energy. Mathematical problems will be built on computer models with real information taken from the system’s operation itself. If the information obtained from this procedure indicates a departure from normal operations, the operator can take appropriate action.

From television monitors located above the computer console, the control room operator can constantly monitor fuel flow and water levels.

A distribution panel console, which controls high voltage breakers for the electrical power that services the mill, is also located in the control room. The distribution panel coordinates the power purchased from Gulf States Utilities.

R.P. Smith, J.T. Morris and J.R. Richardson observe the computer consoles in the new boiler control room. TV monitors above the console will allow the operator to monitor fuel flow and water levels.

Safety Awards

Groups who earned Safety Awards parties at Scrappin’ Valley and North Boggy Slough were Diboll’s Rigid Foam Operation and Pineland Operation’s traffic and electrical department, supply house, quality control and plywood plant finishing end. Each group completed one year without a lost-time accident.

Roy Forse, Donna Jones and Lyndon Jones enjoy the skeet shooting at Scrappin’ Valley. The trio was among Temple-Eastex employees of the Plywood Plant finishing end, quality control, supply house, electrical department and traffic department who celebrated one year without a lost-time accident.

Kim Smith, wife of Roy Smith who is production foreman at Rigid Foam Operations, demonstrated her shooting ability at the North Boggy Slough Safety party for Rigid Foam recently. John Gullett (seated) Rigid Foam’s technical director, added up Kim’s score.
A Day With...

Tommy McAdams

Job fits environmental watchdog ‘to a tee’

For the moment, Tommy McAdams is sitting behind a desk in the Energy and Environmental office at the Evadale Pulp and Paperboard mill. He seems restless. One gets the impression that this is Tommy’s least favorite spot — behind a desk, that is. Deeply-tanned and casually clothed, Tommy appears to be a man who is more comfortable outside — on the lake fishing or in a stand hunting. Maybe it’s the interview setting, speaking about himself, that is making him ill at ease.

He talks about squirrel hunting. The cool mornings have directed his attention to that sport as well as deer hunting. Like hundreds of other environmental protection officers, his recreation is tied to the land. His job is to preserve it.

Tommy is environmental systems supervisor. The Kirbyville native is primarily concerned with the Evadale waste water treatment system. However, his duties require monitoring groundwater observation wells and solid waste disposal at Diboll, Pineland and Evadale as well as all other Temple-Eastex plant sites. He performs air-related testing, too. He doesn’t follow a tight schedule, often working toward weekly or monthly deadlines rather than daily ones. As it turns out, most of his time is spent outside, in the field, the type of job that he says “fits me to a tee.”

He has been on the road an awful lot lately, he says. He has just returned from the Texas Air Control Board’s visible emissions school — smoke school he calls it. He and G. Wayne Hardy, air pollution programs supervisor, both attended the school in Houston. They must be re-certified every six months.

“They have this fire box with a chimney,” he explains. “We have to read within seven percent opacity of the plume in order to pass the course.”

This appears to be quite a skill. Eyeballing a plume and being able to tell its “thickness” or density.

Tommy is also EPA-certified to stack test for particulate pollutants. All stack tests for Temple-Eastex are conducted under either Tommy or Wayne’s guidance.

In addition to these duties, Tommy organizes mill work orders and engineering requests for items having to do with the mill waste water treatment system. He manifests the disposal of wastes at all plant locations and complies reports that are required by both the company and environmental agencies.

For today’s purposes, Tommy will conduct tests in each of the three environmental concerns: solid waste, air and water. As he explains the testing procedures and the significance of each, his manner begins to change. He is now gesturing and speaking more confidently, obviously comfortable with this subject.

FIRST STOP: SOLID WASTE

Each week, Tommy reviews the mill painting department area to make sure that guidelines according to the Resource Conservation and Recovery Act (RCRA) are followed. His inspection includes observing the condition of the drums containing paint thinner and that their bungs are properly secured. He looks for proper labeling and makes sure that “No Smoking” signs are prominently displayed.

Tommy, “I went to work for Temple-Eastex in Quality Control and stayed there seven years. For the past seven years, I’ve been in environmental. I came in as the ‘river man,’” — the one who catches the final discharge sample at the Neches River. From there, I learned all aspects of the environmental department. Now everyone is so specialized in their jobs, they don’t get the opportunity to experience all jobs like I did.

“I have two sons, ages 12 and 14, and I spend lots of time with them. The oldest boy plays football, basketball and track. The youngest son plays Little League baseball. I’ve been coaching Little League teams for several years. My wife teaches at Kirbyville High School, so we go to a lot of school functions. I also enjoy traveling very much.”

SECOND STOP: AIR

The elevator leading to the top of Number 4 Recovery is large and slow. Stepping out onto the grating walkways, one can observe the stack from up close. Tommy observes the stack plume and takes a reading. He explains that a probe can be inserted directly into the stack to test for particulate pollutants, a job performed by either Tommy or Wayne or an outside consulting firm.

(Clockwise from top left) Tommy McAdams’s trophy buck occupies a prominent place in his office. On top of Number 4 Recovery, Tommy eyes the plume for particulate pollutants. Tommy checks TRS and SO2 levels from the Bendix analyzer. Tommy tests the pH level of the water sample taken from Forests Division’s 250 wood yard. Tommy plots BOD’s from Evadale’s Pulp and Paperboard’s waste water treatment system.
"Working with the waste water treatment system at Evadale is the fun part of my job. This system is my biggest challenge, and I enjoy working with it."

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Back on ground level, Tommy checks the TRS (total reduced sulfur) and SO₂ levels from all three Evadale recovery boilers, a task he performs twice a week. For these readings, Tommy goes into a closet-like room. Inside are panels of colored lights which signify that the process of consistent monitoring of TRS and SO₂ levels is taking place. A complex instrument, the Bendix analyzer, prints out the computer-analyzed levels of these materials.

TOMMY: "My job is meaningful to me in that I feel like I am helping out old 'Mother Earth' in a small way by working with Temple-Eastex's Energy and Environmental Affairs Department. I also enjoy seeing industry taking positive but cost-efficient changes toward environmental problems."

THIRD STOP: WATER

It is a high step up to get into the four-wheel drive pick-up. The tour of the waste water treatment plant must be accomplished by truck, since the system covers some 500 acres. Tommy compiles a weekly aeration report on the performance of the system. He plots BOD’S (biochemical oxygen demand) and efficiencies of system components in order to anticipate operational problems. The 15-day process of cleaning the mill's waste water includes three aeration basins in which oxygen is injected into the water. Tommy says the "bugs" (aerobic bacteria) need the oxygen to survive. He says that these "bugs" are actually what cleanse the water, so much caution is taken to keep them alive. On the far side of the aeration basins is the quiescent basin in which the water "rests" before it is allowed to leave the treatment system. Turtles thrive in the basin, and it is a favorite spot for ducks to rest on their journey southward.

TOMMY: "Several of my daily jobs are gratifying, especially the ones that involve the agencies. When you are working on a project, which involves agency input, it may take a year or more to complete a particular project. After completion of these projects, you just look back over the way it developed, and it is usually very gratifying. Working with the waste water treatment system at Evadale is the fun part of my job. This system is my biggest challenge, and I enjoy working with it."

Tommy drives across town now to the Forests Division's 250 wooded area. Tommy spots the place where the water is flowing away from the timber. He gets a jar and scoops up the water to take back to the lab to test pH level. He also checks to make sure that no floating solids drift into the natural streams, based upon state and federal permit allowances.

Back in the environmental offices of the Technical Building, Tommy gives a brief tour of the department's laboratory. Igloo coolers are stacked near a counter. Tommy says that these are filled with the water samples shipped from Temple-Eastex plants in Thomson, Georgia; Claremont, New Hampshire and Monroeville, Alabama. The lab analysts will perform testing, and the results are routed to Tommy for his reports.

Mike Harbordt, director of Energy and Environmental Affairs: "Tommy handles several key assignments for the company. His diligence, attention to detail and experience recently qualified him for promotion and to assume responsibility for the operation of our Evadale mill waste water treatment system. Other responsibilities frequently take him to Pineland and Diboll operations where he assists in our solid and hazardous waste management programs."

W.R. Martin, manager of laboratories, solid/hazardous waste programs, pointed out that an environmental specialist wears many hats. He must be familiar with state and federal environmental law. He must be able to write reports. He must be able to test materials and suggest ways to solve mechanical problems. He must be part lawyer, part writer, part chemist. But right now, Tommy is not worried about that. He is anxious to get the photo session finished. He even suggests what should be in this picture. He wants to make sure that his trophy deer mounted on the wall above his desk is in the photo.
Operations Research Group

Support group helps company officials keep competitive edge in the industry

In mid-1983, Harold Maxwell, group vice president — Building Products, saw an increasing need to add a management support group to better tie the Building Products Division to the extensive Temple-Eastex forest holdings. Maxwell recognized that rapidly changing technology and the competitive nature of the business dictated such a move. At that time, Maxwell, along with Glenn Chancellor, group vice president — Forest Division, began formation of the Temple-Eastex Operations Research Group.

Dr. Michael McCollum was brought on board to direct the group. His expertise in operations research was backed with a bachelor’s degree in forest science from the University of Arkansas, a doctorate degree in operations research from Texas A&M University and three year’s experience in the operations research field.

The Operations Research Group operates in conjunction with the Building Products and Forests Divisions and is responsible for development and application of computer models as decision-making tools.

“We are taking the management of our forests and plant operations from what has been considered an art and making it into a science,” explained Dr. McCollum.

“Operations Research Group is becoming a central hub for decision-making,” said Building Products Vice President — Operations, Jack C. Sweeny. “The models give us information that is helpful in pinpointing weaknesses and turning these into either capital investment projects or alternate management strategies.”

Essentially, the management program is closing the gaps that had existed between the resource side of operations and the finished products.

Facility models are currently being used at the Diboll sawmill, Pineland complex, Fibreboard plant and the three particleboard plants. Models also exist for raw material allocations and for projecting growth and yield from the forest.

FAP

The Fiber Allocation and Planning Model (FAP) allocates timber to the various plants to maximize return to the company.

Walter Still, senior analyst responsible for FAP’s use, said that data is gathered directly from plant stations (such as the sorter or edger at the sawmill) and from the Forests Division. This information is fed into a computer large enough to handle the hundreds of variables at Control Data Corporation in Rockville, Maryland.

“What if...” questions are proposed, and the computer makes simulations of these hypothetical situations. Company officials can then take appropriate action.

One example is the installation of the 12” Scherman Gang edger at the Diboll sawmill. The FAP model was used to determine how to better utilize an ample supply of large diameter trees (16” or larger) in the Diboll forest region. FAP recommended that a 12” edger, with its capacity to make wider dimension lumber could increase productivity and recovery. Sweeny said that since installing the edger a year ago, the sawmill has set production and recovery records.

Glenn Chancellor, group vice president — Forests Division, said that his group can use the model for fiber planning and deliveries. Also the model has proven useful in evaluating resource related capital projects such as the new Southern region sawmill.

“Using FAP allows the Forests Division to answer questions about the value of trees while they are still standing in the woods, rather than waiting until after their delivery to a plant,” he said. “We can make as many as four sorts in the woods, and truck the trees to Evadale, Pineland, Diboll and save money by doing so. The gains are substantial.”

“So far,” he added, “the mills have been satisfied to the point that we get favorable comments about the quality of the logs they’re getting.”

GYM

The Growth and Yield Model (GYM) took nine months to design, and became operational in December, 1984. GYM allows company officials to develop optimum forest management strategies through simulated growth of forests.

The model has been used to develop a forest management strategy that meets three primary objectives: security, by maintaining consistent and reliable source of timber for the present and the future; continued growth of forest resources and maximization of present net worth of forestlands.

Programmer Esther Crane feeds forest inventory data files and management strategy data into the main frame located at Texas A&M University. The model then simulates the growth and yield of the forest through time. The model prints a detailed harvest report along with a financial summary.

The first cutting budget using GYM is presently being prepared. So far, the model has received favorable review from field foresters, which, Chancellor said, is important to the success of the program.

Also important is auditing to enforce logging specifications. The other three members of the team perform this task. They are Spencer Knutson (a part-time group member), Larry Blackerby and Greg Malone. The auditors make sure that loggers are meeting wood specifications when delivering the raw material to the plants.

With the auditors’ help, for instance, compliance has increased from 80 percent to over 90 percent for the loads audited.

THE RESULTS ARE REAL

The Operational Research Group is results-oriented, documenting potential savings of over $3.5 million in timber allocation benefits since the inception of the FAP program alone. McCollum thinks that the group has merely scratched the surface in service to the company.

“We can look at interactions among com-
pany groups and help managers make decisions from analytical facts rather than relying on bits and pieces of information within a single division," he said.

The models have become integral parts of the day-to-day operations of the Building Products group, according to Sweeny, and in this "survival of the fittest" industry, matching the right tree with the right facility is paramount.

So, from seedling to converting, the trees are watched. Assessments and decisions are made, and actions are taken. Operations Research Group is not performing research, but as the eyes and ears of the company, it is tying together company forces to increase productivity through technology.

### AUDITING

**When.....Where......How**

Load auditing consists of a scaling and appraisal process that encourages logging contractor compliance of logging specifications. The auditing is performed randomly at any delivery point within the company. The crew audits three days each week. **Picture A:** Auditors Larry Blackerby (left) and Greg Malone will inspect a load to determine if it will be audited. They audit "worst cases" of non-compliance. **Picture B:** The inspection consists of checking butt sizes and by visually inspecting for butt spurs and limbs. **Picture C:** If the load is determined to be a "worst case," it is taken off the truck and laid out, one log deep. Butt diameter is measured as well as bark thickness. **Picture D:** The crew will then use a tape measure to determine log lengths. Log sweeps or crooks are also noted. Since the logging contractors and the company have a specification agreement, penalties are assessed for non-compliance. When the auditing first began, 80 percent of the logs were in compliance. Now, the group reports, the logs are over 90 percent in compliance.
Logging residue and small tree chips will be used to fuel the Pulp and Paperboard Division's boiler and turbo generator.

The Operation

The two-lane stretch of farm-to-market road east of Kirbyville is typical of most in East Texas. At mid-morning, the only vehicular traffic is an occasional log truck, and deer grazing on the roadside are not an unusual sight.

The lack of activity is deceiving, however, for behind the green curtain of pines along Farm Road 363, a whole-tree chipper belonging to B&W Contractors is busily and noisily chewing up trees and logging debris on Temple-Eastex lands.

Tommy Burch and Don Wood (B&W Contractors) have focused their full attention to whole-tree chipping this September day. This area is a 'wet spot' and needs to be logged and chipped before rainy weather sets in.

In an average 7 a.m. to 4 p.m. day, the contractor will haul 15 van loads or approximately 375 tons of chips. Each van takes about 20 minutes to load. This includes chipping, too.

What is remarkable about the whole operation is what occurs within the 20-minute time frame. Three or more tops or unmerchantable trees at a time are fed by a hydraulic grapple onto a feed roller at the front of the chipper. Then, blades on the roller pull the material into the chipper itself, which consists of a disk on which three large knives are mounted. From there, the chips are blown through a directional spout into the chip van. B&W owns a $205,000 Omark Industries chipper equipped with a 750 horsepower Cat engine.

The chipper operator sits atop the actual chipper in an air-conditioned and heated control cab. His major concern is to feed the material into the chipper throat at a fairly straight angle.

A Fellerbuncher shear performs the actual tree cutting. The shear can accumulate several trees within its grasp. It holds the severed trees while cutting others, and the cuts are so close to the ground that very little stump is visible. The load is then stacked in neat piles to await the skidder.

The chips' destination is the Pulp and Paperboard Division's boiler and turbo generator project in Evadale, about 32 miles away, where the renewable resource, in the form of chips, will reduce that operation's dependence on natural gas.

In October, Temple-Eastex added three other chipping contractors. These included Virgil Martindale and Son of Jasper; B&R Incorporated of Corrigan and Joe Miesch of Lufkin. If more chips are needed, a fifth contractor will be added in the spring.
The Concept

The whole-tree chipping concept has been around for about 20 years. Morbark Company in Winn, Michigan, was the whole-tree chipper creator. Southern migration of these chippers began in the early 1970s when wood shortages prompted industries to start looking for alternate pulping sources.

Jim Cumbie, director of operations - Forests Division, said, "Mills have always had boilers to burn bark to supplement their energy sources. Only in the past five to ten years have chips been used as fuel."

He added that, initially, independent chipping contractors will be located on company lands in the Southern Forest Region. In later years, the company hopes to furnish a limited market for adjoining landowners.

At least 65 percent of the boiler chip fuel will be obtained from the chipping operations within a 50-mile radius of Evadale. About 35 percent of the fuel burned will be bought from area mills. Temple-Eastex will start with four independent chipping contractors. About 280,000 tons of chips per year will be needed. Johnny George, Southern Region residue coordinator, reported that the highest weekly total chip production so far has been 78 van loads or 2,089 tons of chips.

Cumbie noted that the chips include the entire tree - needles, cones, everything. "This material that is chipped and utilized as fuel is primarily logging residue that has no market and is normally left in the woods to rot. As a side benefit, the cutting area is cleaned up to the extent that less money is spent to get the land ready for planting."

What's out there

Millions of tons of wood are consumed annually by the forest products industry to produce lumber, paper, furniture, pallets, and pulp. But millions more tons are left in the woods as residue to rot. Overmature stands die.

1 The shear accumulates trees by cutting them at the stump and bunching them.

2 Johnny George, Southern Region residue coordinator, examines an example of a low stump cut by the shear.

3 Trees that have been bunched by the accumulator shear await skidding to the chipper.

4 The whole-log chipper operator has this view of the front of the chipper.

5 An inside view of the chipper's feed roller.

6 Chips are blown into the van by means of a directional spout.

Forest fires rage. Sawdust and bark sit idle. 1.6 billion to 5 billion tons (depending on what you count) of wood are available annually for industrial wood energy. This figures out to roughly 14 to 54 quadrillion BTU's of energy that is currently not being utilized.

Forests cover 738 million acres in the United States, an area greater in size than the area east of the Mississippi. Growth rate averages almost three times that of removal rate for commercial use.

So given even the inaccessibility of some timberlands and harvesting restrictions on other timberlands, we are talking about a huge resource that has virtually been ignored.

Contrary to public opinion that the forest products industry is raping our forest, we are barely using our only renewable resource. Just as the Midwest has become the breadbasket of the world, our forests could make us energy self-sufficient.

(Reprinted with permission from Logger and Lumberman Magazine, July, 1980)
## Service Anniversaries

(Service anniversaries are calculated according to calendar years of service with the company.)

### Building Products

<table>
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### Corporate

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<td>William R. Martin</td>
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### Recent retirees from the Forests Division's Jasper Office included S.C. Hicks, C.R. Mitchell and James O. Dean.
On the Move

CORPORATE — George Vorpahl was named vice president-law and general counsel of Temple-Eastex Incorporated...Leslie K. O’Neal was named Temple-Inland Inc. assistant general counsel...Sharon D. Arnold is Payroll secretary.

BUILDING PRODUCTS — Dale Arnold has been promoted to manufactured housing representative in the Sales Department from his previous position as sales trainee...Debra A. Andrews was promoted from remote operator at Big Tin Barn in West Houston to data processor...Ben Crim was named plant manager for the Southern Region sawmill. He was previously staff engineer...John Leslie advanced from salesman to sales manager at Big Tin Barn at West Houston...John Archer was named electrical foreman at Fiber Products after serving as electronics specialist...George A. (Buddy) Durham was promoted to manager of the West Houston Big Tin Barn...William Lester Cain moved to technical sales representative-particleboard...Sherman Minter moved from product manager at Fiber Products to the Sales Department as manufactured housing representative...Billy Junge advanced to Fiber Products mechanical maintenance superintendent...Donna Wieland has been promoted to director of logistics after serving as materials administration supervisor in the Purchasing Department...In the Utilities Department, Greer Parr has assumed the Utilities superintendent position...Martha Sumler was promoted from executive secretary to administrative assistant to the senior vice president, marketing.

Pulp & Paperboard

5 Years

JULY
Rodney Horn  
David McMillan

AUGUST
Barry Klykken  
Jane McInnis

SEPTEMBER
Earl Gordon  
John Maxwell  
Mike Psencik

10 Years

AUGUST
William Hoke  
Jenette Smith  
Vernon Williford

20 Years

JULY
John Hastelten  
Hollis Slaughter

AUGUST
Leamon Brooks  
Emerson Holmsg  
Dewey Johnson  
Jack King  
Raymond McDonald  
Emery Neely  
Robert Price

30 Years

SEPTEMBER
Bill Williams

Retirees

BUILDING PRODUCTS — Eule Parrish retired from Security after 13 years...Jose E. Salce retired as a security guard from Big Tin Barn West Houston after five years...Emma Brewer retired from Pineland Operations as a dryer offbearer after 23 years with the company...J.B. Jones also retired from the Pineland Operations as a green end Cat operator after 20 years with the company.


Emma Brewer, 23-year employee as offbearer at Pineland Operations, enjoyed her retirement party recently. Pineland Plant Manager Bill Jones (right) and Sherrill Fears (background left) production manager, were on hand for the party.
Temple-Eastex employees were honored by the Greater Jasper area with a plaque "for outstanding support of the United Way in the Greater Jasper Area." John Martindale, chief land inspector, accepted the plaque on behalf of Temple-Eastex employees.

Leo Coody, a 48-year Temple-Eastex accounting employee, was one of the attendees at the Retiree Club’s August meeting. Club members meet in the corporate office cafeteria.

The boiler-turbo complex (seen here in the center of the photo) is expected to start up in mid-December. David Ashcraft, Pulp and Paperboard Division’s group vice president, says the energy complex’s savings will be substantial. See related story on page 7.

In Touch is published four times annually by the Public Affairs Department, Temple-Eastex Incorporated, for active and retired employees and their families.

Alan Miller - Public Affairs Director • Carolyn C. Elmore - Editor • © 1985 Temple-Eastex Incorporated. All rights reserved. Address all correspondence to Carolyn C. Elmore, In Touch, P.O. Drawer N, Diboll, TX 75941.

About the cover: Forests Division auditors Larry Blackerby [left] and Greg Malone are two of the five members of Operations Research Group, a management support group formed to better tie the Building Products Division to the extensive Temple-Eastex forest holdings.