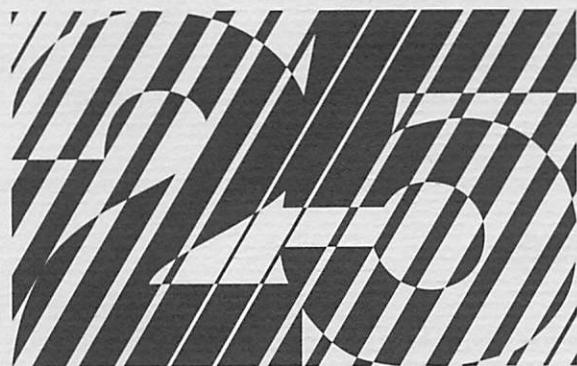


THE MEMOREX PRESS

A newspaper for Memorex employees

Volume 3 Number 2 February 1986

MEMOREX



25 Years of
Technological
Leadership

Memorex officially celebrated its silver anniversary on February 9. This logo was designed to mark our first quarter century. Watch for it on Memorex literature and as a part of Memorex advertising this year.

Customer Engineering Receives Special Awards

Thirteen awards for outstanding accomplishments were presented to Memorex's 1985 high achievers during the Memorex Management Meeting in early February.

Normally, awards in five categories are presented each year including staff excellence, outstanding new product, technical excellence and management excellence. Awards for outstanding group achievement also are presented. This year, a special award was added for the exceptional 1985 efforts of the International and U.S. Customer Engineering organizations.

"Their skills were put through the toughest tests," Memorex President **Phil Dauber** said during the awards ceremony, "and they passed with flying colors."

Bob Berry, vice president of U.S. Customer Operations, and **Trevor Sullivan**, vice president of International Customer Operations, accepted special awards on behalf of their organizations.

The Outstanding New Product Award this year was presented to **Ron Guthormsen**, packaging manager for the Product

Operations Group and a 14-year Memorex veteran. Guthormsen led the engineering group responsible for designing, procuring and releasing Memorex's successful 3680 HDP (High Density Package) product. He also led manufacturing, marketing and customer engineering efforts to prevent possible problems resulting from HDP's high size and mass.

Management Excellence award winners included: **Steve Greenberg**, manager of head disk assembly/thin film head production; **Steve Terry**, corporate systems services manager; and **Jean-Claude Zanolli**, country manager for France.

Steve Greenberg took 3680 head disk assembly production to record levels and boosted productivity by 31 percent. Despite higher production goals and tighter quality controls, Greenberg met all goals and overcame the impact of yield loss.

Due to Steve Terry's leadership, Memorex on-line service delivery was improved to the 98 percent level, an achievement that Dauber called "remarkable" at the awards

continued on page 5

Burroughs Earnings Up 23%

Burroughs recently reported record revenue and orders for the fourth quarter of 1985 and the full year. Earnings for the quarter before taxes increased 23 percent and net income grew 22 percent, to \$115.3 million or \$2.42 cents a share, from \$94.4 million, or \$2.08 a share, a year earlier. Revenue for the quarter increased eight percent to \$1.48 billion from \$1.37 billion in the same quarter of 1984.

"Our results for the year were achieved because of the very strong performance in our international business which offset the sluggish domestic business and our loss at Memorex," said Burroughs Chairman W. Michael Blumenthal. "Memorex exceeded its order and shipment targets in the fourth quarter and improved operating results compared with the third quarter. Based on this performance, we are planning on Memorex's achieving profitability in 1986."

Burroughs media forms and supplies business improved its profitability over 1984, and Systems Development Corporation, which sells to the government market, achieved solid results and exceeded its business plan for the year.

For the year, Burroughs earned \$248.2 million, or \$5.46 a share, up slightly from \$244.9 million, or \$5.40 a share, a year earlier. Revenue rose 4.8% to \$5.04 billion from \$4.81 billion.

Worldwide orders in the fourth quarter reflected a good gain compared with high levels a year earlier. International orders for the quarter remained very strong,

continued on page 5

**How Four
SEs Give
Us The Edge**

See Page 3

ATAC/NDC Merger Cuts CE Expenses

Since the Alert and Technical Assistance Center (ATAC) and the National Dispatch Center (NDC) moved into a joint facility, the amount of "no-trouble-found" calls customer engineers make have been greatly reduced in addition to their response time.

"No-trouble-found" calls are frequently questions customers have that ATAC technicians can answer and do not require a customer engineer. According to **Jim Partain**, manager of ATAC operations, every call a C.E. makes costs Memorex \$300. By handling these types of calls, ATAC and NDC will reduce costs.

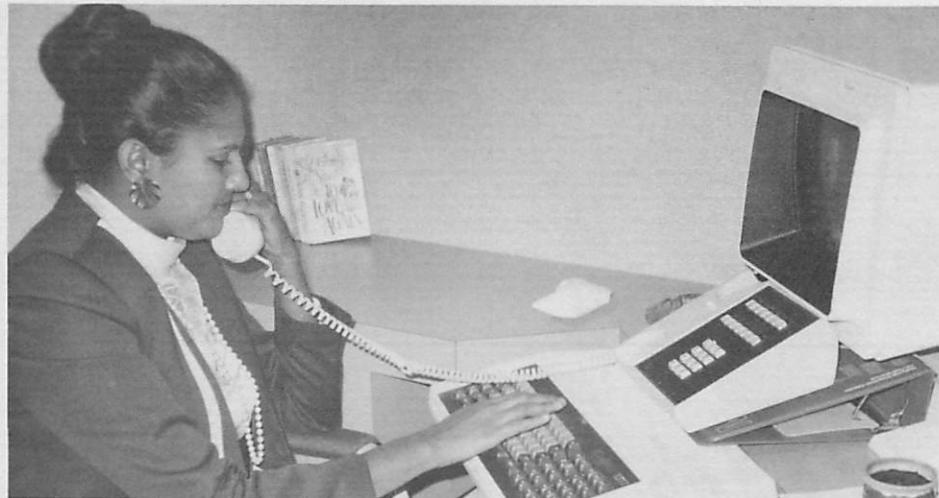
When the new facility was built, an improved operating system also was put into place, which has allowed dispatchers to call up customer files faster. The files are used to ask each customer basic information that customer engineers need to solve product problems.

In addition, the new system enables dispatchers to directly transfer customers with questions about communications controllers to an ATAC technician. Previously, dispatchers could only take a message and give it to ATAC at a later time.

"Because customers are now directly transferred to us, their questions or product problems are fresh in their minds," Partain said. "We sometimes used to spend up to three days trying to get a hold of the customer."

ATAC also has trained four dispatchers to handle service calls on products such as the 2178 and 2191 display stations and the 2173 screen printer. Called the alternative maintenance team, they take customers through a problem they're experiencing using a flow chart to locate the exact cause. If spare parts are required, the alternative maintenance team can order them directly.

"We've also started using TOSS, Memorex's electronic mail system, to keep track of service records at customer sites," said **Steve Lawrence**, manager of operations for NDC. "After customer engineers service a product, they no longer have to send us piles of paper work to order parts or update a file in the system. All they have to do is input the changes on TOSS and the data can be called up at NDC. The system will allow us to decrease administrative costs, federal express packages and long distance phone charges."



Jasmine Narsaiya, senior dispatcher and team leader in the National Dispatch Center, can complete customer service calls faster because of a new operating system that was recently installed in the new ATAC/NDC facility.

In The News

RIGID MEDIA

- **John Brown** recently joined Memorex Rigid Media and Components Division (RMCD) as Operations Manager, responsible for manufacturing, materials, process engineering and facilities. John was previously with Xidex Corporation as Director of Research and Development of rigid disk products.
- **Sam Cowan** was appointed manager of Development Engineering in RMCD, responsible for OEM particulate media, thin-film media development, document control and product/test engineering. Sam has 10 years of experience in the rigid disk industry.
- **John Sasser** joined RMCD as OEM Engineering Manager. John was previously with Xidex Corporation as Director of Product Marketing for its rigid disk products. He holds a BSEE from California State University, Fullerton.

U.S. OPERATIONS

- **Tom Rusert** was recently appointed Region Manager of Major Accounts in the Eastern and Southern areas. Tom has been with Memorex for seven years, most recently as Memorex Finance Company Lease Manager. Prior to joining Memorex, Tom spent two years with Exxon Information Systems.
- Some creative selling enabled **George Szymkiewicz**, a sales representative in Santa Clara, to close a large order for 2080 display stations (448) 2274 controllers (13) and five printers, worth almost \$800,000. The order involved swapping the customer's mainframe computer, which Memorex needed, for Memorex peripherals the customer needed.

LARGE DISK DRIVE DIVISION

- **Dianna Grijalva**, a technician in the Large Disk Drive Division (LDDD), recently was presented with an Employee Suggestion Award (ESP) of \$7,600 for her idea, which will save Memorex more than \$75,000 this year. Dianna suggested that head flex assemblies could be rebuilt if they failed electrical testing by switching "A" and "B" components. These units were previously scrapped.
- **Terri Rattler**, an assembler in LDDD, won a \$785 ESP award for her idea to rebond broken wire on head flex assemblies without detaching the components from the slider. Her suggestion will save Memorex more than \$3,000 per year.
- **Rhonda Abdelbaki**, an assembler in LDDD, made a suggestion to remove shrink tubing that was mounted over ground wires on 3680 disk drive subassemblies. The tubing, which acted as an insulator, often cracked and split when the ground wires were installed. An investigation revealed that the tubing was not even required for this particular application. Rhonda was awarded more than \$1,000 for her suggestion, which will save Memorex more than \$4,500 a year.

Highlights From The First 25 Years

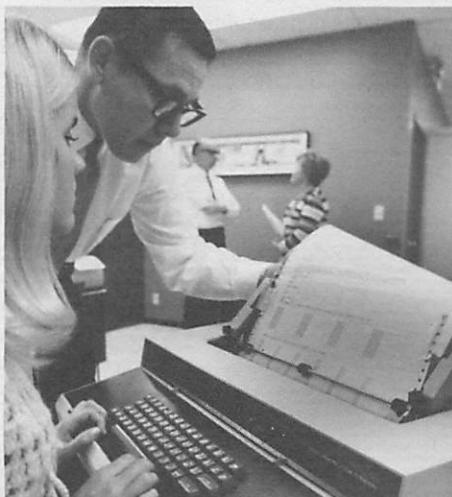
As Memorex turns 25 this month, it is fitting that we look back at new product developments, employee accomplishments, and major events that have taken place. Here are some interesting tidbits from Memorex's past:

1968

- In April, 1968, Memorex began transforming an empty 15-acre site in Liege, Belgium into a burgeoning and profitable manufacturing plant. When the factory was completed in June, 1969, some 300 employees worked on finishing computer tape, video tape and disk packs. Today, Liege plant employees manufacture computer tape, refurbish disk drives and printed circuit boards, assemble display stations and distribute a range of Memorex equipment and spare parts.

1969

- Cost reduction programs at Memorex date back to the company's early days. In 1969, for example, three five-man teams, who manufactured rigid disk packs, came up with suggestions that saved Memorex more than \$800,000 that year. The teams were originally set up to promote some friendly competition, but team leaders admitted that the real emphasis was on cooperation rather than competition. When all three groups got together for a brainstorming session, they came up with 140 cost savings ideas in 45 minutes.



Memorex's first communications terminal, the 1240, used the same technology as high speed printers in the 1970s. Today's terminals, like the 2178, 2080 and 2191, are modular in design and consist of a keyboard, a monitor and a logic module.



Memorex founder **Lawrence Spitters** (center) and other former company executives make Memorex history in 1970 during the groundbreaking ceremonies at the Santa Clara, California site for corporate offices (Building 12).

1970

- Memorex's first communications terminal, the 1240, which was introduced in 1970, incorporated technology used in high speed computer printers. The 1240 operated at speeds up to 60 characters per second, much faster than competitive units in 1970, and was marketed to users of time-share computers. Today's terminals, such as the 2178 and 2080, are modular in design and consist of a keyboard, a monitor and a logic module.
- In April, 1970, Memorex executives broke ground for its new corporate headquarters at San Tomas and Central Expressways in Santa Clara. Memorex officers were joined in the groundbreaking ceremonies by the Board of Directors at the 57,000 square foot site. The ceremony was the first chance Memorex stockholders had to tour the 54-acre San Tomas construction sites. At the time, Disk Drive Heads Manufacturing became the first department to start operations in recently completed buildings while the framework for a larger addition was being constructed.

1972

- During the last week of June, 1972, Hurricane Agnes hit the East Coast, spawning floods from the Carolinas to New York. Called the worst flooding in U.S. history, the storm left 122 persons dead, 112,000 homeless and caused more than \$2 billion in damage. Memorex field employees helped alleviate problems at customer sites by working round-the-

clock to move data processing equipment that was in danger of being flooded. In one case, a salesman said "the flood waters rushed through a customer's data center, carrying off furniture, Memorex disk packs, punched card decks and other supplies. So we went looking for this equipment downtown, or I should say, downstream."

1974

- **Robert Wilson** was elected president and chief executive officer of Memorex in mid-1974 replacing **Lawrence Spitters**. Wilson came to Memorex after 30 years of experience in the industry and had been president and chief executive officer of Collins Radio before joining Memorex. He also had been executive vice president at Rockwell International with responsibility for the company's Electronic and Industrial Products Group.

1980

- Robert Wilson was replaced by **C.W. Spangle** as president and CEO in early 1980. Spangle brought 20 years of computer industry experience to Memorex. Before he was selected by the Board of Directors, Spangle had been president of Honeywell Information Systems and had led the company's computer operations since 1969.

1984

- In June, 1984, **Dr. Philip S. Dauber** became president and chief operating officer. **continued on page 6**

Persistence Closes \$1.7 Million Order Dedicated SEs Making The Difference

When it comes to helping customers determine their data processing requirements or to making newly installed equipment work as efficiently and productively as possible, Memorex System Engineers shine.

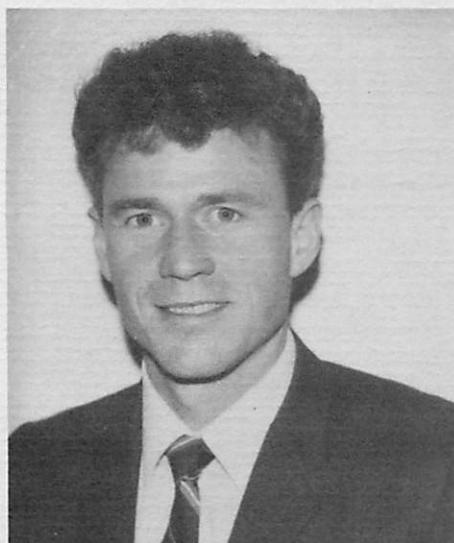
Take Systems Engineer **Peter Carlstrom**, for example. Peter's dedication and "can do" attitude helped **Tom Corder**, sales representative in San Francisco, win an order for approximately four-hundred 2068 multifunction printers.

The order was in danger of being filled by IBM because the customer required a faster print speed. But Peter and **Marty Thomas**, a systems engineer in Santa Clara, put their heads together and obtained a new microcode feature for the printer to increase its speed. That action won Memorex the order worth about \$1.7 million.

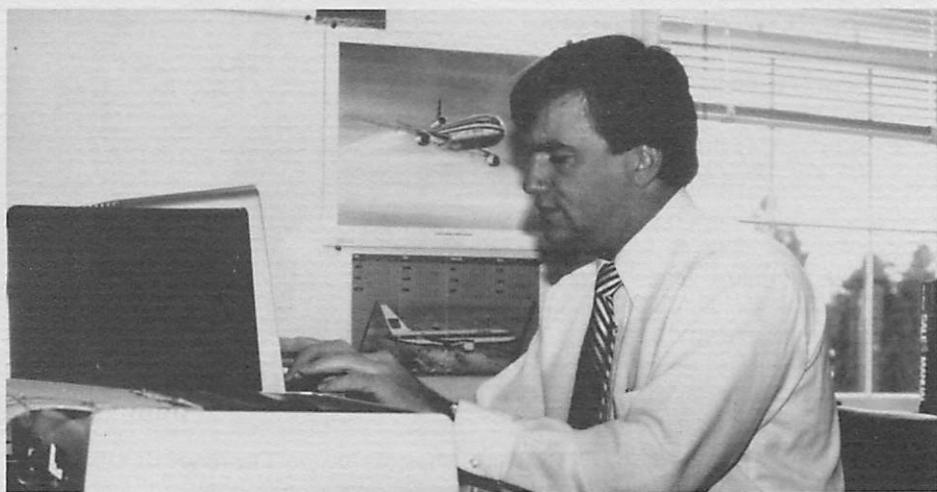
"Both Peter and Marty were instrumental in winning this order," said Tom Corder. "They not only provided critical support and answered all the tough questions, but never gave up on trying to get the microcode in the printer. The order was originally for 150 units, but their ability and rapport with the customer helped increase the units to almost 400."

Peter's support to the customer continued. He developed a brief operator's reference guide and began training all the different user groups throughout the customer site.

At another site, Peter used his knowledge of how Memorex equipment and the customer's entire computer system operated to locate the source of a problem it was experiencing. An IBM Systems Engineer, referring to his manual, said the problem was



Peter Carlstrom



Ben Paxson

not with the IBM software, but with Memorex. Peter found out that the IBM manual was incorrect and recommended a change to the software, which made the system work perfectly.

Another Systems Engineer, **Ben Paxson** of the Southern Area, is known for wading through any situation that could possibly bring Memorex positive results.

During 1985, Ben mastered a software modeling tool called BEST/1 to perform capacity planning and "what if" analysis at customer sites. On numerous occasions Ben used the software tool to show customers the needs Memorex products would satisfy without involving any real data files. This way, customers found out exactly what the products could do before purchasing them.

Ben also developed a close relationship with the company that manufactures BEST/1, which now includes specifications for Memorex disk drives, the 6880 solid state drive and the tape cache device in their models and classroom discussions.

Kurt Johnson, sales representative in the Washington Commercial Branch said, "Ben has shown the ability to understand one customer's data center environment better than most of the technical support staff at the site. He has attended BEST/1 training, both on his own and with personnel from the site."

In addition to using the BEST/1 model, Ben has successfully shown customers the performance benefits of Memorex's dual ported 3690-2 disk drive over IBM's 3370. He also works closely with new salespeople in the Baltimore/Washington branch to make sure their knowledge of Memorex products is complete and current. At every branch

meeting, Ben has a block of time set aside for training.

In the Federal Area, Systems Engineer **Roberta (Bobby) Terkowitz** often finds herself involved in lengthy contract negotiations with government agencies.

When she's not in negotiations or at a government site, she is quite possibly chairing a Computer Measurement Group meeting. This group is made up of a body of performance analysts and programmers from user shops throughout the government.

With Bobby present at these meetings, Memorex makes contacts with many potential customers. Bobby often has the chance to describe the benefits of new equipment at these meetings, such as the applications and benefits of the 6880 solid state device. She also helps to project a professional, quality image of Memorex.



Bobby Terkowitz



Sonny Shannon

Creative Employees Slash Costs

Cost cutting efforts throughout the company are continuing to increase the overall profitability of Memorex. Here are some recent examples:

- **Al Johnson**, Cost Reduction Engineer in the Large Disk Drive Division, proposed substituting a standard cap screw for a special, more expensive screw that was being used on a 3658 disk drive spindle. Johnson determined the screw's function could be performed by a less expensive one, which costs 90 cents rather than \$1.70 each. The change was implemented last month and will save Memorex \$5600 this year.
- **Kathy Huffman** of Customer Service, suggested reducing the number of product manuals automatically shipped with disk drive orders. The manuals were previously shipped with all orders, even if multiple shipments were made to the same customer. As a result of Kathy's suggestion, manuals are now classified as a feature, which the customer is required to order. The average cost reduction was \$13.40 for each 3680 disk drive and 3683 string controller and \$46.18 for each 3888 controller unit. This adds up to a considerable amount due to the cost of paper and printing.
- **SS Chan** of LDDD Finance and **Bill Gould** of LDDD Production Control recently documented and implemented proper inventory crediting procedures. This came about after employees in Memorex's Finance organization held a brainstorming session, where they determined that crediting the value of parts and assemblies recovered from returned head disk assemblies would save on material costs.

1985 Memorexcellence Awards

continued from page 1

presentation. Dauber said Terry improved his organization's management disciplines, job descriptions, staff classifications, quality and skill levels during 1985, while remaining under budget.

Jean-Claude Zanolli was honored for doubling Memorex France's profit figures over forecast and taking revenue 5 percent over the annual financial plan. Dauber added that Memorex France was able to achieve or exceed revenue, profit, cash and spending targets throughout 1985 despite an "extremely competitive and difficult business environment."

Technical Excellence Awards went to **Larry Davis**, staff engineer, and **Duncan Frew**, senior staff chemist in media development. Both Davis and Frew were honored for improving the reliability and operating costs of rigid disks by developing a new, advanced lubrication process called DISOC. Davis has been a Memorex employee for 19 years. This was the second Memorexcellence award for Frew, who won a technical excellence award in 1982.

Staff Excellence Awards went to **Sonny Shannon**, director of Headquarters Customer Engineering Operations, and **Mark Frey**, manager of measurements and

analysis in Finance.

Frey dramatically reduced accounting reconciliation of revenue/cost from 5 man-weeks to only 5 man-days. In 1985, Frey quickly researched and implemented an automated sales accounting system that also resulted in major improvements in the field asset tracking system.

Shannon's efforts at finding potential environmental impacts to the 3680 resulted in improvements of equipment performance at several customer sites. Throughout the year, Shannon was responsible for driving computer room environmental evaluations and analysis at selected installations and recommending appropriate actions.

Wrapping up the awards ceremony, Dauber presented group achievement awards to Steve Greenberg, Larry Davis, Duncan Frew and to Donald Michell, finance manager for Memorex Canada. Michell managed to persuade Canadian government authorities to give Memorex a tax refund of \$7.6 million. More than \$2 million dollars of the refund was interest alone.

Each Memorex group achievement winners are now eligible to win additional bonuses from Burroughs Corporation.



Staff Engineer Larry Davis (right) and Senior Staff Chemist Duncan Frew received the Technical Excellence Award from Chuck Recker, V.P. of Human Resources.

Burroughs 1985 Year-End Report

continued from page 1

particularly in the Far East and Latin America. Orders for computer systems in the U.S. continued to accelerate, achieving their strongest order growth of the year in the fourth quarter. Areas of order strength included the B 25 clustered workstations, A Series Mainframes, particularly the A3 and A15, document processing systems, software and professional services.

"As the year ended, Burroughs began to benefit from the recent decline in the U.S. dollar and what appears to be improving business conditions in the U.S.," Mr. Blumenthal said. "We are hopeful that the trend of improved business conditions will continue in 1986, and if this positive development is sustained, Burroughs will have another good year."



Memorex's **Penni O'Hara**, corporate employment recruiter (right), discussed hiring methods with **Louise Zick**, principal of Buchser Junior High School, at a recent conference to establish partnerships between businesses and educational institutions.

MRX Adopts A School

By Ernie Tydell

Memorex is taking an active role in preparing young people for the working world by helping to form a new "adopt-a-school" program, which will establish partnerships between businesses and educational institutions.

A relationship between Memorex and Buchser Junior High School in Santa Clara has initiated this program. Although it is in its early stages, a conference to discuss the importance of cooperative relationships was recently held at Buchser. Memorex's **Penni O'Hara**, corporate employment recruiter, was one of the featured speakers. She provided information about the hiring process, skill requirements and expectations of student attitudes.

The Adopt-a-School program was started in Santa Clara by the Chamber of Commerce; however, long-term school/business partnerships have existed

throughout the United States for some time. The programs have included business mentors to help students with projects, speakers bureaus, training for teachers and tours of the work setting.

Memorex also is interested in providing "hands-on" experience to younger children. Recently, a group of fifth graders toured Memorex facilities to get an idea of how a high-tech company operates. They visited a clean room, shipping, printed circuit board assembly and product testing.

"I think your company has a very good way of doing things," said one student. "I especially enjoyed the part when the conveyor belt took the keyboard on the tray to the elevator and then up into a storage room. It was very interesting. I think that I am probably going to be a Memorex customer in the future."

If you are interested in working on school projects, please call Ernie Tydell at 7-2897.

Simple Tips Prevent Energy Drain, Boost Profitability

By Greg Fischer

Energy usage throughout Burroughs and Memorex facilities continues to represent a major annual expenditure. Because Memorex spends almost \$25,000 a day on gas and electricity to heat, cool, light and run facilities, we need to make sure these resources are not wasted. Imagine if this were your home bill. Would you be concerned?

Memorex has an active program to evaluate and effectively manage the different energy uses in our facilities. By eliminating wasted energy the company saves money, which improves our competitive position and profitability.

The energy conservation program is not intended to reduce needed energy uses, but to eliminate areas where energy is being wasted, such as leaving lights and air conditioning on in an office at night.

One suggestion to rewire and shut off two 50-cycle generators in Santa Clara will save Memorex \$30,000 a year at a cost of less than \$3,000. The following are some other areas of wasted energy to watch for:

1. Unoccupied offices with lights left on.
2. Equipment running when it's not in use.
3. Lights on in offices where there is sufficient light from windows.
4. Terminals, personal computers and printers left on after hours.

5. Excessive air conditioning or heating.
6. Air conditioning on while doors and windows are open.
7. Excessive use of hot or chilled water. There are many more ways to reduce energy costs, especially in the manufacturing areas. If you have any suggestions for your area, please let us know:

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Environment & Energy	7-1138
Chuck Elderton	
Environment & Energy	7-9869
Ryan Curtis	
San Tomas	7-2149
Fred Higgins	
RMCD	7-0962
Harold Rundberg	
Communications	7-9298
Pat Heavside	
Building 23	7-2996
Gary Anderson	
Physical Distribution	7-9688
Doug Carlson	
Computer Tape	7-9917
Betty Miller	
Other Corporate Facilities	7-2595
Nelson Stradling	
Precision Plastics	(714)261-5888
A. Takla	
Winnepeg	(204)257-9119

25-Year Highlights

continued from page 4

officer and C.W. Spangle announced his intention to retire later in the year. Dauber had been president, System Products Group, at Burroughs Corp. since mid-1982. He brought 15 years of experience at IBM to both Burroughs and Memorex. He has a bachelor's degree in Electrical Engineering, and a master's degree and a PhD in Communication Science.

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