

Systems & Services Division  
Johnson Controls, Inc.

# Monitoring The Field

March, 1981  
Vol. 25, No. 3

## Fire-gutted MGM-Las Vegas bounces back: Johnson Controls to install fire management system

On November 21, 1980, a tragic fire virtually gutted the casino area and ravaged the interior of the 2,165-room MGM Grand hotel in Las Vegas, Nevada. Not long after the tragic incident, the decision was made to reopen the hotel by mid-June, 1981.

Johnson Controls was awarded a cost reimbursable contract to furnish temperature controls, fire management and energy conservation systems. (Our equipment was not involved in the fire.)

### Los Angeles-Sacramento joint venture promises success

Johnson Controls' success in this project will be the result of a joint venture between the Los Angeles and Sacramento branches.

The systems, when complete, will consist of controls for one million square feet of public area and a JC/81/35 with over 1200 points, 800 interlocks and 600 light drivers, all to be complete

within five months of contract award. "How to compress a normal eighteen-month construction project is the problem," commented Los Angeles branch manager Jim DeKleinhans. "The key has been the exceptional inter-company cooperation for the project."

After the joint sales effort, experienced management was provided at the job site from both offices, with a key man borrowed from the Phoenix branch. "Material flow and information from Milwaukee has been outstanding and all that is left is a lot of hard work," added Jim.

On the job site, project manager Scott Grill and project engineer Reon Onstine had this to say: "We are currently working seven 12-hour days a week but expect to go on overtime soon."

### Past performance pays off

"One of the primary reasons MGM selected Johnson Controls for the Las

Vegas project," stated Joe Wallace, Sacramento branch manager, "was our performance on the job at the MGM Grand hotel/casino in Reno, Nevada." The Sacramento branch office executed the Reno contract to customer satisfaction and has recently been awarded the contract for a 986-room addition at Reno.

The Reno project has a JC/81/35 for fire management and energy conservation. The systems for both hotels will be similar.

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### Who's Who on the MGM-Las Vegas project:

Project Manager: Scott Grill, Los Angeles  
Project Engineer: Reon Onstine, Sacramento  
Regional Coordinator: Larry Teague, PCRO  
Appl. Engineer: Dana Johnson, Los Angeles  
Appl. Engineer: Larry Deputy, Phoenix  
Project Accountant: Dorothy Colburn  
Draftsperson: Camille Bornkamp  
Pneumatic Foreman: Jim Rollans, Las Vegas

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## SSD electronics manufacturing to consolidate

When certain SSD manufacturing operations (pneumatic) were relocated from Milwaukee to Georgetown, Kentucky ten years ago, it was announced that the company's long range plans were to evaluate all manufacturing operations.

In May, 1980, the board of directors approved a formal study to determine the future geographical location of the electronics manufacturing operations.

On February 16, 1981, R. D. Wilson, vice president and SSD general manager, released the following information in Milwaukee and Dallas:

*"The relocation study announced on May 29, 1980 is essentially complete and has resulted in a management decision to recommend to the board of*

*directors that a new electronics manufacturing facility be built on the Texas/Mexico border.*

*Assuming approval:*

- 1. All Dallas facility activities will be relocated.*
- 2. With the exception of a new pilot run facility at SSD headquarters in Milwaukee, BAS electronic assembly and test (departments 54 and 55 in Milwaukee) will be relocated to the new electronics manufacturing facility.*
- 3. The printed circuit board fabrication operation (department 56) will remain in Milwaukee.*

*Further details will be provided as they develop."*

The company does not anticipate relocating any of the aforementioned

activities before the start of 1982, with completion anticipated a year later. The Milwaukee electronics manufacturing operation and the Dallas facility will continue to operate on a full-strength basis throughout the estimated one- to three-year transition period. A project management team has been assigned to develop and implement the plans required to insure an orderly transfer of products. The team will be headed by Bill Ranganath, formerly Automated Protective Systems (APS) manager.

The lengthy transition period is required to assure an uninterrupted supply of products to the branches.

In an effort to be fair and open with those directly affected by the move, the plans were announced as soon as the decision was made.

# DOE grants awarded for branch contracts

A current Department of Energy program for schools and hospitals recognizes the potential of energy conservation systems by providing matching funds amounting to almost \$1 billion for energy audits and the resulting retrofit programs.

In the second award cycle of the conservation program, now complete, the following SSD branches have reported contracts with institutions receiving grant funds totaling \$347,792.

Sioux Falls	\$ 3,975
Fargo	16,846
Appleton	42,644
Great Falls	67,729
Duluth	1,532
Portland, OR	19,229
Madison	37,400
Shreveport	11,475
San Antonio	58,152
Indianapolis	84,456

These contracts, combined with those awarded for Johnson Controls' projects in the first award cycle of the conservation program, bring our total reported grant related sales to \$2,575,648.

The third award cycle will continue until September 31, 1981. President Reagan's proposed federal budget cuts

## Edmonton claims APS sales record

Jim Whytock and Cliff Badger of the Edmonton branch, aided by Mark Fairly, Canada's regional APS manager have claimed the all-time APS volume record for a single job with a sale for almost \$3 million. Edmonton has received a contract for \$2 million for the first phase of the job, and the second portion will be for an additional \$1 million.

The project is the University Hospital Health Sciences Center in Edmonton, Alberta. It includes a JC/81/55, and the Canadian designed SS-7200 EVAC, exclusively fire management.

Phase one of the large automated fire alarm system has more than 1000 points, 1500 smoke detectors, and 127 telephone stations for use by fire fighters. The emergency audio evacuation portion includes 1100 loud speakers for alerting the occupants of any fire danger. The system also incorporates security features with fifteen entry badge readers and 12 video monitors.

could, if adopted, wipe out every government conservation incentive *except* tax credits and *grants for schools and hospitals*.

The schools and hospitals program, which provides federal matching grants for retrofit programs for public buildings, would survive but would be cut in half from the \$200 million the

## CEO survey results reinforce EBM action plan

The Systems and Services Division has conducted a survey of chief executive officers (CEO's) throughout the US and Canada. The main objectives of this survey were:

- Identify purchase decision criteria important to CEO's in the selection of a building automation system supplier.
- Find out how Johnson Controls was viewed on these purchase decision criteria.
- Identify publications read regularly by CEO's, with the resulting information used to select media for advertising purposes.

Approximately 1700 CEO's responded to the questionnaire. Their responses provided important insights into what particular features of a controls supplier are important, such as providing a complete service maintenance program, the ability to update systems, and having a good record in handling difficult building control problems.

### Future direction

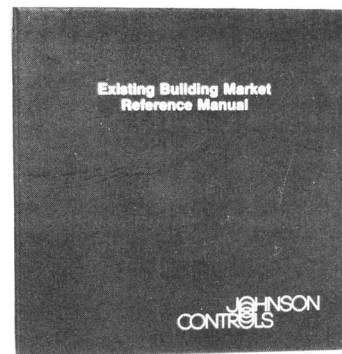
The information obtained from the survey will be useful for marketing and selling service, ATC system upgrades, building automation and TABS directly to the CEO.

According to Dady Blake, market analyst in SSD's market research department, "the results of this survey are particularly pertinent to Johnson Controls' present EBM efforts because the influence of the CEO on the buying decision is far greater in the existing building market than it is in the new building market." Reinforcing that statement is the fact that in new buildings the CEO/owner relies more heavily on the advice of consulting engineers, whereas in existing buildings the CEO/owner is more likely to evaluate the need for building controls him/herself.



Carter administration requested for the program in fiscal 1982. Each grant is matched by non-federal funds.

Since the program began in April of 1979, Johnson Controls has been aggressively pursuing this business, with branch activities coordinated through the Federal Energy Programs office in Milwaukee.



The purpose of the EBM "cookbook" issued to our branch management and sales people at the regional meetings is to convey the elements of the executive sales process that apply commonly to any of our product/service sales situations.

## Monitoring The Field

March, 1981  
Vol. 25, No. 3

Published monthly at Milwaukee, WI for employees of the Systems & Services Division, Johnson Controls, Inc.

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Contributing Editors: Joe Bartoletti, TABS; Lou Davit, Installation/Engineering; Dale Hawley, Service; John Levenhagen, Counterline; Patricia Ludwig, BAS; Terry Meinholdt, APS; Bob Stahl, ATC; Diane Wagner, Quality Assurance; Richard Walker, Federal Energy Programs.

Letters may be addressed to the Managing Editor, *Monitoring The Field*, Johnson Controls, P.O. Box 423, Milwaukee, WI 53201.

JOHNSON  
CONTROLS

## Counterline's Top 20

The following US branch offices were the top performers in Counterline sales for 1980.

- |                     |                    |
|---------------------|--------------------|
| 1) Greenville, SC   | 11) Pittsburgh, PA |
| 2) Wilmington, SC   | 12) Charlotte, NC  |
| 3) Jacksonville, FL | 13) Columbus, OH   |
| 4) Tulsa, OK        | 14) Hartford, CT   |
| 5) Lubbock, TX      | 15) Raleigh, NC    |
| 6) Cleveland, OH    | 16) Albany, GA     |
| 7) Houston, TX      | 17) Rochester, NY  |
| 8) San Antonio, TX  | 18) Madison, WI    |
| 9) Greensboro, NC   | 19) Denver, CO     |
| 10) Syracuse, NY    | 20) Portland, OR   |

The classification of these branch offices in Counterline sales was based on the following criteria.

- Dollar volume of total material sales.

## Counterline . . . really down to earth

"Here's the earth," were the last words the pilot of a small, single-engine plane shouted to his three passengers the Monday night of February 2nd.

John Levenhagen, Milwaukee market manager for ATC products and administrator of the Counterline program, was one of those passengers. The next thing he knew, "I was buckled in tightly and upside down . . . I said, 'Is everyone alive?' because I didn't think I was." John fared the best of the four men injured when the plane started shaking violently and crashed in a wooded area in Michigan.

John stumbled through the dark, in snow up to his waist, the temperature about 12 below zero, and got help for the others.

The plane crashed at about 2,000 to 3,000 feet about midnight. The men were returning from the Michigan Technological University where they had signed up students to form a new chapter of ASHRAE.

### Noticed smoke

He said that shortly after the plane took off, the occupants noticed smoke coming from beneath the control panel. "Then we heard this faint knocking and it kept getting louder and louder," he said. The pilot of the rented plane tried to keep the plane gliding toward a safe landing, but then he turned around and said, "Buckle yourself in tight. We're going to hit."

Before hitting the ground, the wings of the plane apparently struck trees. The

- Dollar volume of service order material sales.

- Percent change in 12 month moving total of total material sales.

- Percent change in 12 month moving total of service order material sales.

- Percent of total material sales to gross sales.

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In Canada, the Toronto and Winnipeg branches are very active in Counterline sales, and the other offices are becoming more involved as time goes on.

plane landed nose-first in three feet of snow, then flipped over onto its top, the fuselage folding like an accordion. The snow probably saved their lives.

John was the only one able to get out. He had lost his glasses but he saw a light in the distance and floundered about 100 yards, reaching a supper club where help was called. Ambulances were on the way within 15 minutes of the crash. The men were taken to the hospital where John was listed in good condition, one man in serious condition and two in fair condition.

John was back at work the following Thursday. "I had a meeting with some people coming in from Dallas, and I didn't want to miss it."



John Levenhagen came out of this alive.

## Marketing merger for APS and BAS

The Automated Protective Systems (APS) and BAS Marketing departments of SSD have joined forces. Under the direction of Mike McLean, BAS marketing manager, the two groups will continue to coordinate marketing direction and perform product management for our BAS and APS related products.

The product managers in Milwaukee are the prime focus of all marketing issues related to their particular lines. They are:

Dick Bobincheck, JC/85/10  
Terry Hoffmann, Security  
Bill Lydon, JC/85/40  
Bill Pauers, Fire Management  
Steve Sayles, JC/80, JC/84

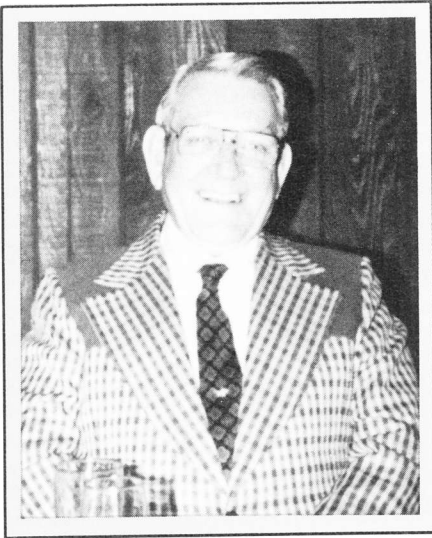
The structure of our field support personnel in the regional offices (APS and BAS) remains the same.

The merger will improve our continuing efforts to make Johnson Controls' products and systems the most cost-effective and competitive in the marketplace.

As future markets and objectives for APS and BAS overlap more and more often, the mutual planning of new product offerings becomes critical. Advances in technology are bringing microprocessor and software/firmware-based designs to many of our products and systems. Consequently, the training and experience requirements of both APS and BAS marketing personnel are similar.

# DICK GAFFORD

## an outstanding mechanic retires



There can be many things written about a person who is retiring from his life's working career, but none is perhaps so meaningful as a tribute from one's peers.

Dick Gafford was considered the "lead man" ever since he began working as a mechanic for the Birmingham office in 1953. For the next 27 years, until he retired early this year, Dick was looked up to as the local expert in the automatic controls industry. He was the person everyone in the field, including engineers, could seek out for advice.

He came to the Birmingham office at a time when the controls industry was not recognized in that area. The fitters and local unions were reluctant to cooperate with Johnson Controls. "After Dick came to Birmingham, life was much easier for everyone in the of-

## Jackson mechanics plan surprise

Something unique occurred at the annual office party in the Jackson (Mississippi) branch. The field mechanics and electricians got together (inspired by Ray Yeager, service mechanic) and hired a professional belly dancer to entertain at the party.

The majority of those in attendance were completely surprised when she suddenly appeared and placed a turban on the head of Ed Maness, branch manager, and then performed her dance routine. Bob Batterman, service manager, also got into the act and did his version of belly dancing.

fice," said Bill Wayman, branch manager. He had the capability not only of supervising installation, but also convincing contractors that there was indeed a correct way to install three-way valves. In fact, he was often summoned by contractors to advise them how to install various types of equipment.

Because he was so respected in the industry, Dick was always capable of drawing good men out of the locals in the Birmingham area. Consequently, because he inspired the cooperation of the other union men on the job, the branch installations went in without a hitch.

As the Birmingham branch grew in size and it became necessary to have separate crews of mechanics for construction and service, Dick went into service. He assisted Jim Gaylor in building the Birmingham service department into the successful operation it is today.

Although the Birmingham branch will miss the person who could "tackle and accomplish any task that a branch might have," they know Dick has earned the time to pick up his fishing gear and head for wherever the fish are biting.



Bob Batterman, service manager, did his version of the belly dance.

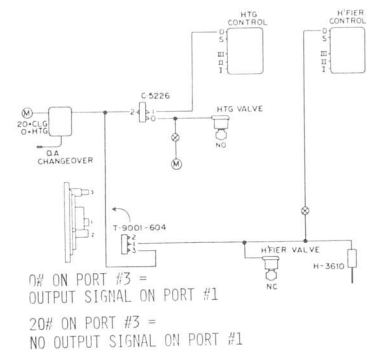
## Idea of the month

### Reverse switching circuit (T-9000 relay)

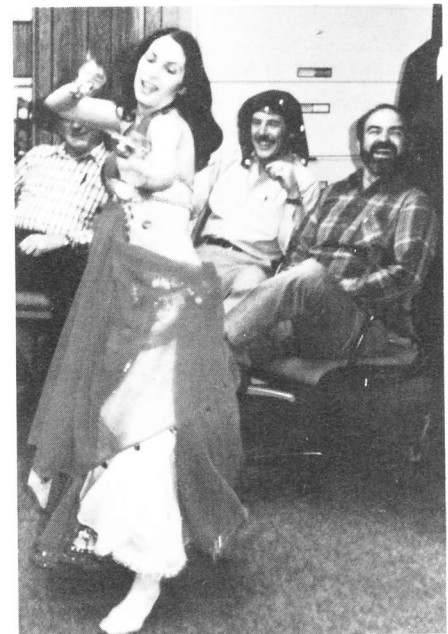
Paul Miller, service coordinator for the Aurora branch, will receive a \$50.00 "Idea of the Month" award for submitting the following idea.

The Aurora branch had been looking for a reverse switching cumulator to complement the direct acting C-5226 when used in a switching circuit, and to replace the more expensive V-6133.

For certain applications, the Aurora branch uses relays from damaged T-9000s or the repair T-9001-604 relay.



A good application for using the T-9001-604 as a reverse switching cumulator would be when it is necessary to switch over a N.O. heating valve and a N.C. humidifier valve with the same signal (shown above).



Interested spectators (l-r): L. W. Nations, construction manager; Ed Maness, branch manager (wearing turban), and Bob Batterman, service manager.

## UK training zeros in on Service

Initiation of the new training center at United Kingdom headquarters took place in December. The first seminar in the new facility covered the principles and practices used by successful UK service departments.

"The objective of the one-week seminar was to demonstrate to representatives of our European companies how the UK pursues sales objectives in the controls and total maintenance fields," said Grant Langley, UK's national service sales manager.

The three-story facility (partially shown below) is about 60 miles from London and houses 120 head office employees of Johnson Control Systems Limited.



## Bina named service marketing manager

Dan Bina has been appointed as marketing manager for service. In this newly formed position, Dan will report to Ron Cafrey, vice president of marketing. Dan will be responsible for identifying service sales opportunities and developing programs, plans and strategies to satisfy the needs of the service business. For the past several years, he has served as national HVAC service sales coordinator, in the national service sales department. He joined the company in 1969 as an application engineer in the LaCrosse branch and held a number of branch positions including service sales manager. Some areas which will receive his top priority include service sales promotion, advertising, national accounts, purchasing agreements, training and service marketing development.



## CPM/MIS Seminars tackle new system

During February, the service managers from each branch in the U.S. attended regional training sessions aimed at introducing the new management information/accounting system for all 7000 series (CPM) contracts.

The new management system was introduced by Joan Schultz, Systems; Marv Hiller and Karen Kaminski, Accounting; Laurie Hack, Corporate Administration; Dan Bina, Marketing, and Dale Hawley, Service Sales.

The objective of the new CPM system is to provide improved information to the branches that allows for better management, control and coordination of CPM agreement/7000 series contracts. The seminars centered around input requirements and output management reports.

April 1, 1981 is targeted as the implementation and conversion date. Branch service standards, SPIs and other documentation were provided to support the CPM/MIS.

A CPM/MIS "hotline" to Milwaukee (extension 4721) will be available on March 16th and will operate throughout the implementation phase to answer any questions about the system.

Johnson Control Systems Limited was the first company to move into the Westlea Down "employment area," a new industrial development in Swindon, 60 miles from London. "Next to us is a bible company, very suitable for Johnson Controls," said Brian Amey, engineering services manager for the UK.



A seminar with a decidedly European flavor: (seated, from left): Jean Boccara, Switzerland — service sales engineer; Giancarlo Murer, Milan, Italy — sales engineer; Carmelo Pitea, Milan, Italy — national sales manager; Grant Langley, UK — national service manager; Fred Van Linger, Holland — construction, and Gaston Hubert, France — salesman in charge. The back row (from left) includes: Brian Amey, UK — engineering services manager; Peter Adamson, UK — training manager; Ferdi Vandermeir, Belgium — service salesman; Pierre Thibeault, France — administrative assistant; Ron Hillier, UK — personnel manager; Jan Kriz, Zurich — salesman in charge, and Fred Ranson, UK — energy conservation manager.

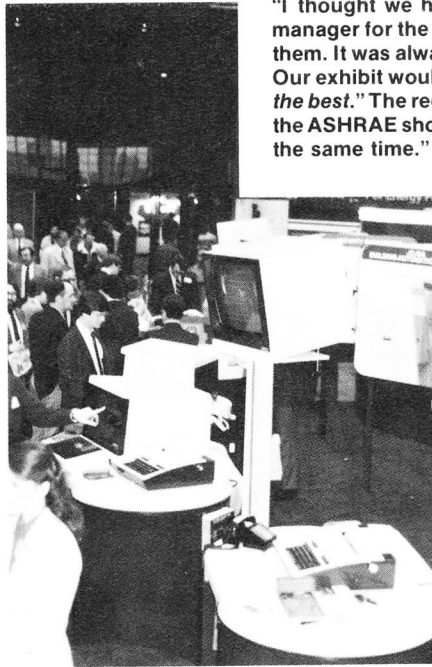
# ASHRAE exhibit scores huge success

One of the most enthusiastic customer receptions on record was given to Johnson Controls' exhibit at the 1981 International ASHRAE Show held at McCormick Place in Chicago the last week of January.

The SSD booth featured the JC/80, JC/85/40, JC/85/10, PIC system (pneumatic integrated control), and EPAK system for calculating energy savings.

The exhibit was staffed by Milwaukee product managers for the various systems on display. Their blue sport coats and gray slacks complemented the exhibit and carried out the theme, "We Put You in Total Control." (This staffing procedure will be used for our exhibits at all national trade shows in 1981. For the past several years, our exhibits were staffed by branch personnel in cities where shows were held.)

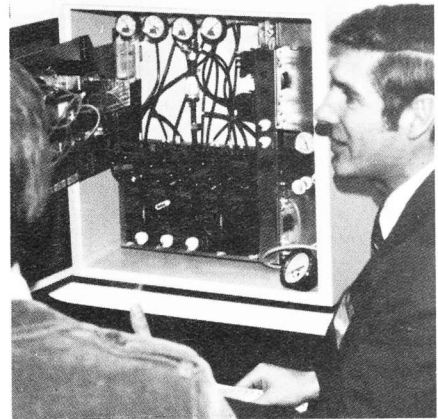
The Monday after the ASHRAE show ended, the Marketing Communications department in Milwaukee was busy mailing literature to the record number of people who filled out inquiry forms at our exhibit.



Right: Paul Wichman from Milwaukee's engineering department demonstrated the PIC system at the ASHRAE Show.

"I thought we had a helluva good booth," said Larry Cox, BAS manager for the Southeast region. "We stacked up with the best of them. It was always mobbed every time I passed anywhere near it. Our exhibit would have to rank right up there among the top, if not *the best*." The regional BAS managers scheduled a meeting during the ASHRAE show, taking advantage of being "in the same place at the same time."

- Plug-in booster relays, sequencers and reversing relays
- Integral replaceable supply air final filter
- Integral indication face plate
- Modular standardized configuration
- Test points on all inputs and outputs



# ASHRAE honors Johnson Controls employees

The board of directors of the American Society of Heating, Refrigerating and Air-Conditioning Engineers voted to present the ASHRAE Distinguished Service Award to John Levenhagen and Bob Pagliasotti of Johnson Controls. The award is presented to any member of ASHRAE who, in the judgement of his peers, has served the Society faithfully and with distinction.

**John Levenhagen** is ATC Products manager for SSD. He has been active in five different chapters of ASHRAE since 1956, holding various offices in each of the last 24 years, including president, five national positions and two regional positions. He has twice been awarded a Certificate of Appreciation for devoted service.

**Bob Pagliasotti** is regional service sales manager for the Midwest region. He has been active in ASHRAE since 1967 and has also held offices during each of the years since then. Among them were terms as president of the Rocky Mountain Chapter and Mississippi Valley Chapter, and regional chairman for a four-year term. He has twice been awarded ASHRAE's Presidential Award of Excellence and the Regional Award of Merit.



John Levenhagen, right, accepted the ASHRAE Distinguished Service Award from Hugh McMillan, ASHRAE president.



Bob Pagliasotti, right, accepted his ASHRAE Distinguished Service Award. The awards were presented in Denver.

# Emergency Building Temperature Restrictions terminated

*Energy conservation need is unchanged*

President Reagan terminated the Emergency Building Temperature Restrictions program on February 17, 1981. He labeled EBTR as one of many burdensome federal regulations of business practices. The Reagan administration believes commercialization of energysaving technologies is best left to the marketplace, not the federal government. The high cost of energy should be sufficient motivation for building owners to conserve.

The federal law required, among other things, the 65°-78° temperature settings for commercial buildings, and was a convenient and legal reason for building owners to save energy — and money. Without the law, the price incentive must be energy savings or cost avoidance, which can be difficult to quantify to everyone's satisfaction.

## Perspectives changed

With or without a federal law, the energy savings potential of most of the restrictions still apply. "You will recall there was a lot more to compliance with EBTR than just the 65°-78° temperature settings," said Gene Strehlow, assistant manager of Johnson Controls' Field Engineering Department in Milwaukee. Some of the other major aspects were:

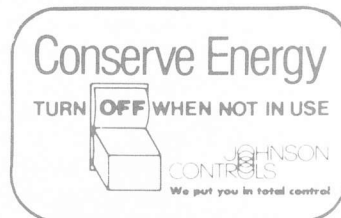
- Lockout of simultaneous heating and cooling.
- Night setback and unoccupied cycle.
- Lowered domestic water temperatures.
- Perimeter reset schedules for radiation.
- Limited use of "new energy" and promoted using "reclaimed energy."

## Direction the same

For those of us in the controls industry, the lifting of the restrictions may change a few perspectives, but our direction should be the same. The real potential available to us and our customers is through energy conservation.

Most building tenants will understand it is in everybody's interest to keep energy costs down because these costs are passed through to the tenants in rate adjustments. Businesses will continue to respond to higher energy costs by implementing conservation measures which Johnson Controls can be a big part of. We can help!

## Keep it in the limeLIGHT



Use these Light Switch Conservation Labels as a reminder from Johnson Controls that energy conservation is important. The blue-on-white labels are sized to fit above or below a light switch.

Your cost for these labels is 20¢ per sheet of 18 labels. Order from Marketing Communications on Form 814. Specify "Publication 1185."

# Energy tax credits rest on "commercial process"

The U.S. Internal Revenue Service and the Treasury Department have confused building owners, manufacturers, tax specialists and others regarding applicability of commercial building controls for the 10% energy tax credit. The tax credit became law along with the entire National Energy Act in November, 1978, but there were no regulations showing how the IRS would administer credits.

## No changes

The IRS and Treasury have at last released final regulations for administration of tax credits. The final rules hold no meaningful changes from the preliminary regulations which were discussed in *Monitoring The Field*, June, 1980.

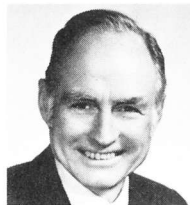
The final rules do not allow *most* commercial customers to obtain Energy Tax Credits for installation of automatic energy control systems.

Specifically, the installation of an AECS must be for reducing energy in an "industrial or commercial process." The rules say that "equipment installed in connection with retail sales, general office use, and residential use" is not used in a process within the meaning of the definition. Included in the definition of a commercial process are laundering and food preparation.

## Tax advice needed

James Keyes, vice president and chief financial officer of Johnson Controls, has issued a statement advising that our field personnel should suggest to customers that "... expenditures for each installation are to be apportioned depending upon individual facts and circumstances, and that customers should seek guidance from their tax advisers."

# Tennis, anyone?



Could it be true that the mystery tennis player shown in last month's MTF is really Fred Brengel, filling in for his wife at a doubles tennis match? The smile certainly looks like the one that made our president famous.

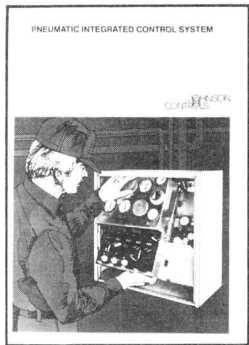
Angela Mieczkowski, switchboard operator for the New York office, was the first branch person to submit the correct answer, so she wins the \$25.00 reward. Angela said she guessed it was Mr. Brengel after reading the hint about the "famous smile" and then comparing the photo with his photo in the annual report.

Ron Caffrey, vice president of Marketing, received almost as many nominations as Mr. Brengel. There were a few guesses that the tennis player was Paul Wichman, and even one guess for Dan Bina. Some of the comments were, "Ron Caffrey, that's who it is, everyone knows." "Could that wig be hiding 'smiling' Ron Caffrey?" "The picture doesn't seem to be Dan, but the smile is Dan Bina's".

# Multi-Project Management

A one-week multi-project management school will be held in Milwaukee June 1 to June 5, 1981. This is the only date this year when this school will be offered. Refer to section 2.4.0 in sales memo 41-C (8-25-80) for more details. Applications for this school should be on Form 1178. Regional approval is required. The school is a great opportunity for anyone performing in (or being considered for) a position of multiple projects management.

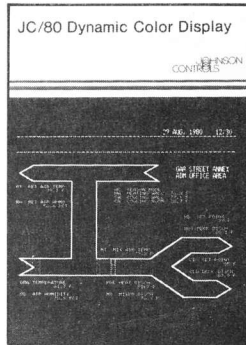
# What's New



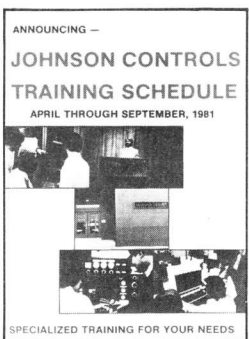
**PIC BROCHURE** (4 pages) Introduces our Pneumatic Integrated Control system.  
**Publication 1183.**



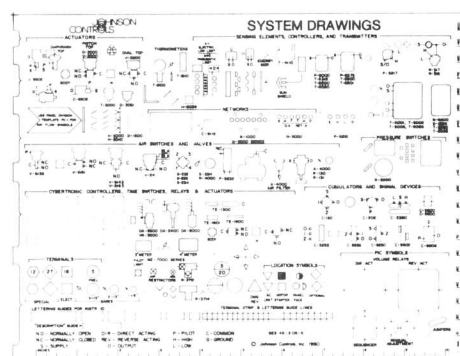
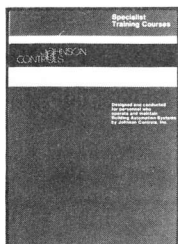
**IC² PERFORMANCE RECORD** Revised edition lists IC² installations in US and Canada, according to branch office.  
**Publication 2564.**



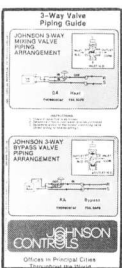
**JC/80 DYNAMIC COLOR DISPLAY** (4 pages) Shows 8 dynamic (continuously changing) colors on our CRT.  
**Publication 1184.**



**TRAINING SCHEDULE** (4 pages) Contains six-month customer training schedule, April-September, 1981. Should be given to all customers. Supplements previous schedule (right).



**COMBINATION TEMPLATE** Electric, electronic, panel and system mounted devices, and PIC system. 8-1/2" x 11". Branch orders are on file in Milwaukee; will be shipped automatically. Additional templates available, \$10.00.  
**Template number BES-45-2.05-5.**



**VALVE CAPACITY SLIDE RULE**

Back by popular demand! The valve capacity slide rule is again available, and it's been combined with the 3-way valve piping guide to make it even more useful to you and your customers. Price is 50¢ each.

## Standard Practice Instructions

The following SPI's have recently been revised and reissued. (Additional copies are not available; consult your branch SPI manual.)

- 11-9 Battery Sales to Johnson Controls Employees, Personal Use (at battery manufacturing plants in 12 cities).
- 11-13 Use of Funds and Expense Reporting.
- 23-7 OSHA Recordkeeping Requirements.

- 31-4 Requesting Printing Services.
- 41-10 Order for Materials Supplied by Marketing Communications.
- 41-102 Pre-Jobsite Quality Assurance Audit Survey Checklist.
- 41-120 Group Hospital Insurance, Request for Change.
- 41-140 Automobile Insurance Claims.
- 41-141 All Risk Property Policy; for US and Canadian owned property.

## Quality Assured S-6100 and T-5220

Comments have been received from the field regarding the fact that the tabs on the cover of the S-6110 electro-pneumatic motor driven servo are breaking. This same cover is also used on the EPT-101 electric-to-pressure transducer and the soon to be released T-5220 precision transmitter. This cover is clear plastic on the S-6110 and EPT-101 and will be black on the T-5220.



To properly remove the cover, grasp the center of the cover with your hand, gently push upward or downward, and lift the end of the cover out. Once one end of the cover is disconnected, the other end will readily release. It is not necessary to pry the retaining tabs loose with your fingers or tools. Tampering with the tabs may result in the tabs cracking or breaking off.