

Partners **IN** PROGRESS

SMACNA & SMWIA - Building A Future Together AUGUST 2003



To Grow Local Markets,
Put It All Together



Special Architectural Sheet Metal Section—follows page 8

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NEWS AND SHORTS

CORPS OF ENGINEERS ADDS TABB SPECS

The U.S. Army Corps of Engineers, one of the nation's most respected engineering organizations—not to mention the most historic!—has included specifications from the Testing, Adjusting, and Balancing Bureau (TABB) in its standard procedures.

Marking the occasion in May, at a national meeting of Corps engineers held in Las Vegas, speakers from TABB were featured twice. A 30-minute presentation by John Hamilton, assistant director of certification for TABB, filled a hotel meeting room with more than 100 mechanical engineers who design and specify Corps of Engineers work. Questions that followed included:

“How can a TABB contractor be used by the designing engineer as his ‘eyes and ears on the job-site?’”

“When should the balancing contractor get involved?”

TABB (www.tabbcertified.org) is jointly sponsored by SMWIA and SMACNA through their National Energy Management Institute (www.nemionline.org).



Flanking Lt. Gen. Robert Flowers, commander of the U.S. Army Corps of Engineers, are (left) Jack Webster, TABB's director of certification and Gary Andis, director of education.

SMACNA CONTRACTORS: DEMONSTRABLY SAFER!

Nearly 300 SMACNA contractors participated in the association's Safety Statistics Excellence Award program in 2003. Together, these companies amassed almost 52 million man-hours.

Average incidence rate for the companies was 4.83. That's nearly 45% below construction's most recent incidence rate (provided by OSHA)—8.2. Additionally, 109 of the companies reported “zero injury incidents,” certainly the fruits of a safety focus by both managers and workers.

Three winners in each of five man-hours-worked categories will be honored in September at SMACNA's 60th annual convention in Washington, D.C. ■

COMING IN THE NEXT ISSUE OF PARTNERS IN PROGRESS

Our third issue of 2003, to print in late September (in time for SMACNA's Sept. 28-Oct. 1 convention in Washington, D.C.), will deal with worker recruitment issues.

According to Bureau of Labor Statistics projections, the HVAC industry—specifically, sheet metal contractors—faces the biggest challenge of any construction sector in the 2001-2010 period. BLS data claim that we'll need to increase our “headcount” by almost 30%.

What's being done? What is planned? What can you do? Look for the facts, the positives, and the challenges in the next issue of Partners. ■



Putting It All Together

There are times when it all comes together. Plans come to fruition; everything clicks! Recent example: The U.S. invasion of Iraq. While former generals explained on TV why the Pentagon's plans wouldn't work without another 100,000 soldiers, 50,000 of our troops raced to the Baghdad's outskirts. *And entered.*

In markets targeted by the SMWIA-SMACNA team, the organized sheet metal industry has its own private mission. We have the enthusiasm, the skills, the workforce, and the management capabilities.

We need only the will to put it all together.

TOOLS FOR LOCAL USE

This issue's cover might seem to suggest that the national organizations and various joint programs are the only way to succeed. That's far from true.

In fact, discussion on the cover wavered—from a jigsaw puzzle to *tools*. We decided it would be going too far to make a jigsaw puzzle of tools labeled with our industry's logos!

That is, however, what we would like to convey.

AT YOUR BECK & CALL

The two national organizations plus SMOHIT, ITI, NEMI, and TABB now have—ready for your use—a variety of tools.

SMWIA local unions, individual contractors, SMACNA chapters, and especially joint local SMACNA-SMWIA labor-management cooperative committees can access any or all of these tools.

One problem has been that many of our tools are underutilized. We hope this issue brings to your attention what's available. You'll find details in these pages on what local programs are doing as well.

GOING FOR GROWTH

Customer satisfaction is our goal; it's the only way to grow market share. Market share gains will come on the local level. Workers, managers, contractors, and industry leaders will do it. Each local area will have its own unique "solution"—one is out there, waiting to be discovered.

Certainly, gaining market share in HVAC, architectural, TAB, custom fabrication, energy, industrial, IAQ, and residential markets will be as easy as putting together one of those 5,000-piece jigsaw puzzles.

Just as certainly, the tools ready for your use now can provide shortcuts to putting all of the pieces together. ■



Out-Of-The-Ordinary **HVAC**

We can elevate our industry's service levels, market share & HVAC expertise—creating happy customers, more work, and higher profits!

By A. Lee Chichester

At the nuts-and-bolts level, several initiatives can help SMWIA workers and their signatory contractors grab HVAC market share:

- a focus on commercial service work;
- TABB certification; and
- safety training.

Can any or all of these be put to work in your area? Here's the scoop.

HVAC Focus

SMACNA's HVAC Market Sector Council makes available online a variety of information. Even older publications are still accessible online (at www.smacna.org/council/hvac). In the future, easily accessible, timeless advice on such items as mobile marketing, e-mail newsletters from contractors, and more will be incorporated into the HVAC Council's publication.

Also available to all visitors are items such as: Summaries of recent NEMI market survey research; links to resources from other sites on the Web; and downloadable (free) technical papers and key information. For example, any visitor can obtain (at no charge) the SMACNA CAD Standard.

Association members have access, as one would expect, to a wider array of information—including contracts bulletins, council reports, and a discussion form.

TESTING, BALANCING & MORE

Market share gains for HVAC technicians and their contractors—via special skills, certification, and integrity—are the reason the Testing, Adjusting, and Balancing Bureau (TABB) exists. Developed by NEMIC (the National Energy Management Institute Committee), TABB is a not-for-profit corporation sponsored by SMWIA and SMACNA. TABB is the only testing and balancing agency associated with a national training effort (the International Training Institute, a SMACNA-SMWIA joint organization).

With TABB-certified technicians, the organized sheet metal industry offers a huge value-add to building owners (potential customers). Erik Emblem, administrator of both NEMIC and TABB, says TABB-certified contractors, supervisors, and technicians add so much value that...*ready for this?*...many non-union contractors currently use TABB-certified SMWIA technicians to do their testing, adjusting and balancing.

Engineers like what TABB offers, too. Recently, the Army Corps of Engineers added TABB to its standard specifications. TABB has been running special educational material in recent issues (May and September) of the HVAC publication *Engineered Systems*.

SAFETY

Mention "safety" and many groan. Minds turn to "the Safety

Police"...stalking shops to terrorize contractors, nitpick individual work habits, and find and cite violations.

But wait: *Safety training* is, in some places, a marketing tool. Promoting the training efforts of your SMWIA local union, or a particular safety record, impresses potential customers.

Increasingly, larger construction customers ask subcontractors about safety, including training. Owners, seeking reducing liability, seem interested in imposing safety training requirements on bidders.

"This approach is becoming more popular as contractors and labor put their training initiatives to use working for them rather than trying to wrestle with concessionary approaches to get competitive," says Gary Batykefer, the top executive of SMOHIT (Sheet Metal Occupational Health Institute Trust).

SMOHIT (www.smohit.org) offers training programs in everything from forklift safety to scaffold safety, from asbestos worker training to confined entry space training, and from lead hazard awareness to hoisting and rigging training. As with *Service Call* and TABB certification, SMOHIT's materials are not promises—but realities. All you need do to take advantage of these programs and grow market share is...ask! ■

CHICHESTER, A VIRGINIA WRITER, CONTRIBUTED FOUR FEATURES TO THIS ISSUE.

TRAINING FOR TRAINERS

Instructors serving local SMWIA-SMACNA training programs attend continuing education classes at designated regional institutions.

Teachers, going to school? Yes! There, they update technological and "how to teach" knowledge. ITI's Instructor Training program is accepted by the National Labor College; instructors earn college credits.

Quality trainers are the instructor-focused curriculum's goal. Result: Apprentices (and journeymen attending skill upgrade classes) get up-to-date knowledge, taught with top-notch instruction techniques.

"We strongly encourage our trainers to enhance their education," says Dan Rose, training director for Local Union 88's JATC in Las Vegas. "The Basic Instructor Training offers a teacher the ability to better convey what they're required to teach at the JATC.

"When the instructors get back from that trainer training, they have better ideas on lesson plans and developing a fresh curriculum." Rose speaks from experience, having gone through the training.

"We've got guys who've taught for a year, and then participate in the Instructor Training program," says Rose. "They know the information itself, but they're unsure if they're teaching it well to the students.

"When they get back from the Instructor Training, they say, 'I'm a pretty good teacher after all—I've been doing what I was supposed to be doing all along.' So it boosts their confidence, which makes them better teachers overall." —A.L.C.

How Local 38 Spells Safety

"Any Local that has training of a specialized nature can use it to sell trained personnel to unique jobs," says Robert Cook, training director of the SMWIA Local Union 38 JATC in Fishkill, N.Y.

Example: LU 38's long-standing relationship with IBM in building and retrofitting plants with specialized needs. Contractor Elmsford Sheet Metal and its SMWIA workforce have served IBM for more than three decades.

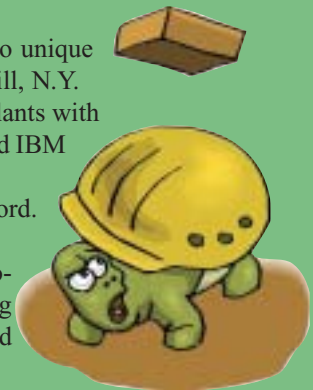
Why? "We know how safety-minded IBM is," explains Don Trier, president of Elmsford. "So is the construction manager on their jobs, Whiting-Turner."

Cook adds: "We partnered with IBM to develop what we called a 'Clean Room Protocol.' Everyone involved—all construction trades—learned how this chip manufacturing building was different from a regular construction site, how to handle special filters, and such.

"There were rules and regulations that everyone had to follow. We did the training for everyone—all the new hires—at no cost to the general or the owner. We also do hazmat training at that site," says Cook. "We scheduled 40-hour courses on hazardous materials handling through ITI."

Is the training investment worth it to contractors? "Thanks to our relationship with LU 38, we know that the team can deliver what this specific customer demands," says Don Trier.

Cook provides additional perspective: "We've always done this great training, but we haven't really used it to the max in the past," he notes. "It's obvious the non-union guys can't do these things. We can, so we should use it." —A.L.C.



CREATING UTILITY & BEAUTY

Eye-catching architectural constructs; fabrications that meet custom needs. How can the SMWIA-SMACNA team improve on its great record? Answers follow.

By A. Lee Chichester

The true artisans of the sheet metal world engineer, develop, and create from scratch new and replica designs for everything from backyard grill covers to cathedral roof restorations. They operate in the specialty niche dealing with custom fabrication and architectural sheet metal.

Sure, there's a line separating architectural from custom fab shops—but it's thin, and there's overlap. Sheet metal workers practicing their artistry in these arenas must think outside the box. An application might be practical or even installed by another company (custom fab). Or it might be breathtaking to behold—helping make an aesthetic statement (architectural).

In both cases, the artisans creating such pieces often must come up with unique tools and resources to turn dreams into reality.

"Typically, the workers into architectural and custom fabrication sheet metal work are self-starters," says Buck Paulsrud, training director for the Minneapolis/St. Paul Metro JATC. "They're always improving their skills, they're always working. They're just that type of person."



CUSTOM FAB

One example of a custom fab application (detailed in the June 2003 *Architectural Metal* newsletter—see www.smacna.council/asm) saw Harpring, Inc. remake public transit shelters in Louisville, Ky.

Some rotten driving left River Trolley shelters in sorry shape. Harpring's crew used computerized layout, computerized numerical control machinery, and state-of-the-art aluminum welding and electrostatic painting equipment to fabricate new structures.

Constructed of aluminum pipe and tubing, the "break-away" shelters allow easier refurbishing. Each stand was fabricated as a single assembly and erected in less than a day.

Custom fab also comes into the picture if a replacement part is needed for a piece of equipment originally made by a company that disappeared long ago. "As a rule, the custom fab or architectural shop's equipment needs to be diverse enough to handle any situation," says Bill Blazvic of Royal Metal Works (Las Vegas), "and the employees need to be skilled to handle the project."

WHAT ARCHITECTS WANT

Architects provide the bulk of the detailing and aesthetic sheet metal work that comes under the "architectural" heading. So—what do architects look for from a sheet contractor?





A SMACNA-led discussion with architects discovered that *experience* is qualifier Number One. The “average” participating architect said he/she seeks at least five years of commercial sheet metal work plus three years of architectural experience.

Architects put tighter communication between workers and designers in second place. This, architects said, will help them keep up with advances in applications, equipment, and technologies.

“Equipment and processes available today provide tremendous opportunity to build just about anything,” says Blazvic. “The worker’s mindset is shifting—computers are used more frequently at the design stage. Better fabrication techniques are created for specific applications.”

SAMPLE PROJECTS

Example: The Cathedral of St. Paul (St. Paul, Minn.). Built in the early 1900s, refurbishment involved close to 100,000 square feet of copper roofing and related flashing and ornamentation. Employees of John A. Dalsin and Son and Dalco Roofing & Sheet Metal seemingly did the work on roller skates, finishing *six months* ahead of schedule.

Crews performed repairs in an onsite sheet metal and carpentry shop, using an innovative sandblasting technique. Environmental concerns led the contractors to create a separate sandblasting booth that enabled the capture of water and copper salts for proper disposal.

See the four pages following page 8 for eye-catching samples of sheet metal brains and equipment applied together.

ARCHITECTURAL EXPERTISE

The organized sheet metal industry stays ahead of industry advances with SMACNA’s *Architectural Sheet Metal Manual* for design standards.

Updated periodically with input from the construction, metal, and architectural industries, it is the on-site “bible” for architectural sheet metal design specifications. An update is set for this year.

Additional resources available include training and an e-mail “listserv” discussion forum for SMACNA members. With 83 contractors involved in architectural sheet metal work on the list, questions and problems find solutions and answers. ■

CHICHESTER, A VIRGINIA WRITER, CONTRIBUTED FOUR FEATURES TO THIS ISSUE.

Specialty Training Mandatory For Twin Cities’ Apprentices

Of the 1,000 hours of courses sheet metal apprentices must complete in the Minneapolis/St. Paul Metro JATC program, fully 20% concentrate on architectural sheet metal fabrication.

That’s one full year of courses (200 hours) in the specialty of architectural and custom fab.

“One of our full-time instructors, Rick Kangas, teaches architectural fabrication,” says Buck Paulsrud, training director for the center. “That’s his focus. If you come through our program, you get to know him real well.”

During his or her fifth and final year, a Metro apprentice can choose elective courses...but *not* architectural sheet metal work. Why not? “You’re going to take that class,” Paulsrud answers. “It’s *not* optional.”

Journeyman can take a skill improvement class in architectural sheet metal and custom fabrication. “We will also be offering a food-grade stainless steel class this fall,” Paulsrud adds. “There is a demand for those skills and services in the marketplace.”

CHANGING HOURS

Demand is the key. Customers in the Minneapolis/St. Paul region contract for a fair amount of architectural and custom fabrication work. “We want to make sure that every sheet metal worker who finishes up his apprenticeship with us has experience in that arena,” says Paulsrud.

Further, the Metro JATC works closely with ITI on curriculum development, technological enhancement, and keeping courses fresh. Paulsrud serves on a committee that revises the overall HVAC curriculum; a former instructor is on the architectural curriculum revision committee; and several part-time instructors can be found teaching outside the area, working through ITI on an “on-call” basis.

Revising architectural/fabrication training curriculum is a necessity. Advances in computer technology, materials, equipment, and tools are *standard* here...the rule, not the exception.

“We put out a brochure every fall talking about the elective courses, including journey-level architectural,” says Paulsrud. “It goes to the entire membership, and we change it up each year, try to keep it fresh, add some new classes.

“It’s been a huge success. We have a very active journeyman-level training program. The more classes they take, the more skills they have to offer. They’re more valuable to the industry as they keep bettering themselves—and it works for all of us.”—A.L.C.

WANT MORE OF THE INDUSTRIAL PIE?

WELDING TRAINING & SAFETY-AND-HEALTH ASSISTANCE ARE JUST TWO 'PUZZLE PIECES' AVAILABLE TO THE ORGANIZED SHEET METAL INDUSTRY. SURE, THE MARKET IS STAGNANT RIGHT NOW—BUT THAT'S NO REASON NOT TO GET OUR FAIR SHARE AND MORE!

BY A. LEE CHICHESTER

As with most nonresidential sectors, the industrial scene remains mediocre due to the overall economic stagnation. Some modest growth has come for those working in biotechnology, pharmaceutical, and food and beverage construction, but it would be misleading to expect a boom.

SMWIA workers and signatory contractors serving industrial customers, therefore, must consider every opportunity to grow market share. Some industrial sectors (including specific geographic segments) have shown signs of picking back up.

Our industry must be poised to gain from any pick-up—and to stimulate customers to call on us if there is another stall. Potential inroads could include:

- industrial indoor air quality issues continue to be serious problems; factory and lab operations need solutions. For example, a Ford manufacturing plant was shut down in 2002 after an outbreak of Legionnaire's Disease.
- with proper training (www.sheetmetal-iti.org), the organized sheet metal industry can capitalize on factory owners' need for certified welded fabrications. SMACNA and other signatory contractors can get their workers trained and go after work that specifies code-qualified welding

SPREADING SAVVY

SMACNA/SMWIA, ITI, and SMOHIT have several initiatives available to HVAC industrial workers that will help. Here's a brief look at each of these market-share growth tools and opportunities in turn.



Industrial Insights is published twice yearly by SMACNA's Industrial Council; to access the newsletter, go to www.smacna.org, choose the "Newsletters" link (on the left), and select *Industrial Insights*.

Details are provided in the September 2002 issue, for example, on how contractors are grabbing market share with indoor air quality expertise. You'll learn in individual profiles about problems of specific factories—and how SMWIA/SMACNA members solved them.

SMACNA also offers specialized publications and software that workers can use as tools to improve their technical and managerial expertise in the sector. Included in *Industrial Insights* are in-depth descriptions of tools such as:

- Round Industrial Duct-Selection (RIDCS) Software v. 2.0
- Electronic format SMACNA Technical Standards and Manuals
- Sheet Metal Lagging "Accepted Industry Practices" Manual

Coming soon: Revisions to the Rectangular Industrial Duct Manual, due next year; this is the first revision to this manual since 1980.



WELDING COUP!

When demand for welding certification exceeded available ITI resources, the Institute creatively (and aggressively) restructured the program. ITI now

CONTINUED ON PAGE 13



ARCHITECTURAL BEAUTY:

HOW SHEET METAL DESIGNS ARE MADE INTO REALITY

Every architectural project is different. Many use sheet metal. And every architectural sheet metal project is . . . different! How do these creative designs go from the architect's brain and his/her creations on paper into living, breath-taking, three-dimensional reality?

When designers, owners, and their construction agents need the best answer to that question, they call on contractors who work with the SMWIA-SMACNA team. SMWIA—the Sheet Metal Works International Association; SMACNA—the Sheet Metal and Air Conditioning Contractors National Association.

On these four pages, you'll find designs brought to life by highly trained artisans working for contractors who sometimes must be almost as creative as the designers. These workers and managers use their brains and experience to bend, wrestle, and “manhandle” reality into something that will be admired for decades.

Ultimately, by applying this knowledge and ability, they overcome the many hurdles they encounter in taking a brilliant concept from paper and making it real.

Such talent, ability, and experience can be found only at http://www.smacna.org/directory/memberbylocation/directory_location.cfm. There, after selecting a state, you can choose to search only for architectural contractors. You can also obtain a list of local SMWIA unions at www.smwia.org. ▶





‘We shape our
buildings:
thereafter they
shape us’

—Sir Winston Churchill







‘THE PHYSICIAN CAN BURY HIS MISTAKES, BUT THE ARCHITECT CAN ONLY ADVISE HIS CLIENTS TO PLANT VINES.’

—Frank Lloyd Wright



CONTINUED FROM PAGE 8

offers welding certification programs recognized by the American Welding Society (AWS).

Under this program, *every* signatory sheet metal contractor can have its own Certified Welding Inspector (CWI)/Test Supervisor (TS) trained by the ITI. What's the value? Having a CWI gives the contractor the ability to quickly produce in-house AWS welding certifications recognized throughout the world!

Contractors currently taking advantage of the program are reporting outstanding success. More information: James Shoulders at 703-739-7200 (ext. 624).

As of this writing, 75 accredited test facilities are available, each with at least one CWI (in every case trained as a TS). Additionally, the SMWIA-SMACNA team has five

'SMWIA workers and signatory contractors serving industrial customers, therefore, must consider every opportunity to grow market share.'

Welding Assessors (one in each of five regions); they are trained to be able to accredited local training center welding programs.

Shoulders, ITI's training administrator, reports that a testimonial from contractor Stromberg Metal Works, Inc., validates the training's value. Stromberg has operations in Maryland, North Carolina, and Virginia.

According to Shoulders, contractor Robert Gawne of Stromberg believes having CWIs in-house provides a distinct advantage over the competition. Last year, the company added three CWIs—and increased total welding man-hours.

"I really think the new structure of the program is something contractors and their SMWIA workers can gain a great deal of benefit from," adds Jim Pierzynski, SMACNA's project manager for the Industrial Contractors Council Steering Committee. ■

CHICHESTER, A VIRGINIA WRITER, WROTE FOUR FEATURES FOR THIS ISSUE.

SAFETY IS REWARDING—CUSTOMERS AGREE!

Increasingly, safety is a key issue for larger users of construction services. In fact, the Construction Users Roundtable (<http://curt.construction.com>)—an association of large customers—has made safety its Number One priority.

Of course, the importance of safety has been proven to contractors and workers! SMOHIT offers intense health and safety training using the most cutting-edge technologies, including Web-based as well as CD and DVD courses. These are, of course, useful to all contractors—and may come in especially handy for those doing work for industrial customers.

A hands-on offering is the "Ask the Doctor" portion of its Web site, www.smohit.org. Dr. Charles Austin, an industrial hygienist who works as a health-and-safety consultant to SMOHIT, conducts training for OSHA courses (among other responsibilities). The site's FAQ section offers past questions from the industry, with Dr. Austin's answers.

Want to ask a question? Dr. Austin will take your specific inquiry through cyberspace—just address it to caustin@sheetmetal-iti.org.

Some sample questions:

"I've heard that silica dust can be a serious health hazard. What is it and how can I protect my crew?"

"There has been a lot of talk about fiberglass regulations, health effects, and control measures to keep our workforce safe. What can you tell me about it?"

"What can I do to work more safely in confined spaces such as ventilation and exhaust ducts?"

Austin's answers include easily understood descriptions of:

- potentially hazardous materials with which industrial crews might come into contact;
- illnesses and symptoms that might result from exposure;
- safety and access tips that have worked on the job, and
- OSHA guidelines that could be helpful to crews.

Additionally, Austin offers links and resources for the worker or contractor to reference for more information. You'll also find further "best practices" ideas for safety implementation in the shop or factory setting.

Two key notes: (1) Austin is a tremendous resource; and, despite that, (2) many industrial sheet metal workers and their contractors lack awareness of (1). Safety and health questions and ideas can be submitted to Austin 7x24x365 via the Web; he'll get the answers you seek back to you in record time. ■

An underused resource: Dr. Charles Austin of SMOHIT will answer your safety & health questions



new center's goal: Reducing Customer Confusion Will Mean More Work

A new organization, developed from a Mike Sullivan brainstorm in just four years, will help building owners cut through the fog on energy-efficiency and IAQ issues. With reliable information, they will create more projects for contractors, more work for technicians.

By Joe Salimando

"Initially, this idea seemed to me to have a chance of being just another one of those things, you know...more meetings, more resources, and not much accomplished. Frankly, I was very skeptical.

"But after having gone through the process, I'm much more enthused about it. The center's purpose is to have someone on the side of the building end-user and the building occupant—to make sure they are getting a building that will work.

"The goal is to make sure the building can perform to the uses for which it's intended. And that the building environment for workers is good. And to provide the building owner with a good return on the energy investment.

"Right now, it's not necessarily working out that way. If we can change that, it will encourage more building owners to invest in HVAC retrofits—and more."

Speaking is Ron Rodgers, immediate past president of SMACNA. He's speaking about the newly formed National Center for Energy Management and Building Technologies (NCEMBT). Rodgers, formerly president of Kinetics Systems (Phoenix, Ariz.) represents the contractor's association on the NCEMBT board.

NCEMBT is an industry project. The idea was first broached in a 1999 letter to President Bill Clinton from SMWIA General President Mike Sullivan. The subject of detailed studies—the link below will take you to an 815-page PDF!—the Center is run by NEMI in cooperation with the University of Nevada at Las Vegas.



Funding is provided by the United States government, via the Department of Energy.

NCEMBT was recently incorporated as a non-profit corporation, with Rodgers as its first president. The other eight board members include four UNLV representatives (three with Ph.D. after their names, and one MBA)—two from NEMI, one from ITI, and one from SMWIA.

IMPROVING THE INDUSTRY

Jim Long, business manager of SMWIA Local Union 88, is the union's representative on the board. He's excited about the prospects as the Center gets into gear.

"Sure, the people who do the studies work in lab coats," he says. "But eventually, that comes back to the worker. When new solutions to energy efficiency and things like IAQ are found, we'll be on the cutting edge of those.

"The only way to employ more people is if our contractors win more work. This gives us the opportunity to help that along."

As a "local" union to UNLV, members of LU 88 are familiar with UNLV's research facilities. "They have quite an extensive laboratory, and the things the UNLV researchers do are very interesting," he says. "We make sure our apprentices get to their facility, go through it, and see the equipment. It's part of our program every year—and it's very interesting for our young people."

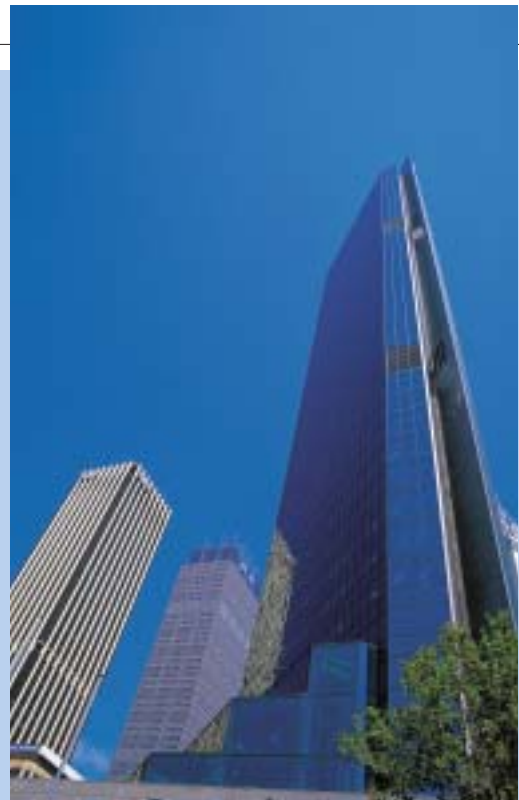
How, specifically, will this new entity create new opportunities? The major premise on which it was funded was to fill information voids.

12 NCEMBT Pursuits

According to Ron Rodgers and Jim Long, the NCEMBT board has already solicited research ideas and (as of Spring 2003) started prioritizing them. The idea is to have projects ready to go when the U.S. government's fiscal year begins (October 1, 2004).

While specific project info hasn't yet been released, the new Center will initially pursue 12 topic areas in its efforts in energy efficiency, IAQ, and more. These are:

- Economic and market analysis;
- Public policy;
- Building-related homeland security;
- Building performance measurement;
- Occupational and environmental health as related to indoor air quality;
- Preventing and controlling microbial contamination;
- Acoustics;
- HVAC components and mechanical systems;
- Intelligent building controls;
- Building economics and cost-benefit analysis;
- Information systems management; and
- Employment, training, and education.



GAPS REDUCE WORK VOLUMES

"Let's take IAQ. As with any area of concern, there are people out there trying to make money from it," Rodgers notes. "There is technology promoted to help with IAQ problems. But there are no standards. And since the technology is proprietary, there is little or no sharing of knowledge between the people who work in these areas.

"So as you get down the road, there are products. And there is information. But it's scattered all over the place. None of it has been organized in such a way as to benefit the user.

"Further, if you take a look at IAQ or energy efficiency, what you see is gaps in the technologies out there, and gaps in the research. That's the need that we hope the NCEMBT will fill. We want to identify those gaps, prioritize them, and fund research that will fill them. Then the NCEMBT will share that information with building owners and others."

In at least this case, having a skeptical, quizzical Rodgers in the room might have helped. "I was adamant that we begin with the end in mind," he says. "After all, SMWIA and SMACNA already have a great deal of credibility with many customers. Why would we want to be involved in this?"

HELPING THE BUILDING OWNER

"Of course, from the perspective of contractors and union members, the only reason to be involved is to create more projects for contractors to perform—work for our workers," Rodgers says.

"In our discussions, what I've come to understand is this: We all believe in our hearts that we can build a better building—one that will actually pay off for the owner. What if we

could do that? What if we could actually give the end-user valid information that he or she could use to make decisions?"

"With the Center, we will be able to get good, hard evidence on building technologies. We'll change it from what many building owners now see as 'smoke and mirrors' to documented information that they can trust. Our goal isn't to sell more of our brand of equipment and make more money or take advantage of the building owner."

Adds Long: "The main thing for us to remember is that we're using government funding. It's very important that the NCEMBT comes out with information that's helpful to the industry's customers. We have to make sure that the end product of our efforts is good, useful information." ■

815 More Pages of Info

No kidding—an 815-page PDF with much of the detailed information, studies, and conclusions that led to the creation of the National Center for Energy Management and Building Technologies can be found on the NEMI site.

Not in the mood to read 815 pages? You might take a look at the "review draft" of the *Final Planning Report*, dated November 7, 2002. It's only 87 pages!

<http://www.nemionline.org/natctrreport.pdf>

Residential Focus: We're Not Blinking!

Our first 2003 issue of Partners In Progress focused on residential as a target for our industry. The organized sheet metal industry is keeping its eye on the ball.

By A. Lee Chichester

Significant industry groups are “walking the walk”—helping the organized sheet metal industry target the residential sector with success-building strategies.

A recently formed NEMI (National Energy Management Institute) Residential Task Force comprises SMWIA business managers and SMACNA contractors. *Goal:* To research emerging markets and develop tools to gain market share. “This is a market we—labor and management alike—have largely ignored in the past,” says Erik Emblem, executive director of NEMI.

That’s the case in Colorado, according to Dwayne Stephens, business manager of SMWIA Local Union 9 in Denver. “Here in the Denver area, we might have at most 10% of the residential market. We’ve allowed it to become the breeding ground for our non-union competition,” he says.

He delineates the worst element of the problem: “They’ve built up their business from the residential market, then move into and compete with us in commercial.”

CUTTING INTO THEIR BASE

Can SMACNA-SMWIA gains in the residential market slice into the “breeding ground” for non-union competitors of the future? “That’s a very tough question,” says Stephens. Getting the answer is the reason NEMI’s Task Force has been developed.



Contractor Profits As Web Visitors View 'Total Comfort Systems'

Novak Heating & Air Conditioning, a SMACNA member in Cedar Rapids, Iowa, placed the Total Comfort Systems story on its Web site (www.novakheating.com). Visitors can easily click-and-scroll through the document’s seven pages.

Here’s the beef: Novak’s webmaster notes that site usage reports show that visitors to the company site are reading the complete document—stem to stern.

What’s more, the company’s field technicians refer homeowners to the Web site; they report that the site is a great way to demonstrate to a customer how Novak is different from the competition.

Key for signatory contractors is to develop long-term relationships with homeowners. Folks with experience say that residential customers are more difficult to gain back when lost—and it's easier to expand in this sector from an established base.

NEMI's Residential Task Force members are: Rich McClees, SMWIA LU #206; MacArthur Coffin, II, Frank Millard & Co. Inc.; Dwayne Stephens, SMWIA LU #9; and Anthony A. Mello, Comfort Heating & Air Conditioning, Inc. (joined by SMWIA, SMACNA, and NEMI staff).

Plans will have the Task Force work with market researchers. Should sufficient employment potential be found in each region, the Task Force will recommend to NEMI that tools be developed to help workers get into that marketplace. Specifics had not been finalized as of this publication's deadlines.

COUNCIL FOCUS

Also focusing on this market sector is SMACNA's Residential Council Steering Committee. The council's twice-yearly *Residential Report* newsletter (found at www.smacna.org/council/rc) includes tips and notices of tools available to both workers and their organized contractors.

Council members obviously aren't trying to "reinvent the wheel!" They recently published the "Total Comfort System" story, an updated version of a homeowner-oriented document originated in the 1950s.

Two versions of TCS are online at SMACNA's site. The first—accessible to all—explains advantages of having a quality air-handling system. The other, password-protected, is available only to members of the association; it's easily customized to fit an individual member's marketplace.

SUPERVISOR TRAINING

Another effort: SMACNA is working to develop a Residential Retrofit Project Management Supervisory training program. This is to be piloted in 2004 as part of the ITI-subsidized Supervisory Training Program.

"Project management skills necessary for residential retrofit work are very different from those required for commercial or even new residential," says Jim Pierzynski, project manager for market sector councils at SMACNA.

"Supervisors and project managers need specialized skills in managing several small projects occurring simultaneously, scheduling and procuring, dealing with multiple responsibilities," Pierzynski adds. These tend to be more complex in the residential retrofit market, according to the Residential Council's Steering Committee. ■

CHICHESTER, A VIRGINIA WRITER, CONTRIBUTED FOUR FEATURES TO THIS ISSUE.

Note: To find SMWIA local unions, see www.smwia.org

Chicago—Second To None In Residential

"We're kind of unique here in the Chicago Metro area," states George Slater, business manager of SMWIA Local Union 265 in Carol Stream, Ill. How so? "Ninety percent of every new house built is built with union sheet metal workers."

Perhaps Slater hopes to become famous for understatement!

Importantly, Slater notes, his area's workers never lost residential. "Once you lose this work, it's very difficult to get back," he says. "I think the reason we control it here is that we pay the prevailing wage for the best work; we keep the best workers in the market; and we train them to do the best job."

Slater's tale provides another perspective on the residential market. Areas that lowered residential wages to compete with non-union contractors haven't obtained the desired outcome; in some cases, signatory contractors lost skilled residential workers to commercial work's higher wages...creating a residential worker void.

In these worst cases, contractors trying to gain ground in residential but finding themselves short of workers experienced and skilled in this demanding work have moved on to other niche markets.

Usually, the result is that non-union shops gain ground.

SPECIALIZED TRAINING

The Chicago area's training program is geared for the specialty niche of residential work—new installs and service/retrofit.

"We have whole-house modules for the members to work in. Crawl spaces and the whole thing," Slater notes.

"Each class goes in and removes the old work, then learns how to put in the new, from the wiring to the piping for both furnaces and air conditioners; from the ductwork to actually setting the equipment. In each module we have the apprentices work on a different kind of furnace—so they learn all the technology.

"Following up, the next class comes in, learns how to remove all the existing work, then starts over. We have a condensed training program; they run 40 hours a week, five times a year."

Sure, Slater acknowledges—it's no small decision for a contractor to pursue growth in residential work. He quickly notes, however, that his local works with a successful contractor, Air Rite Heating & Cooling. That company worked 325,000 man-hours last year doing nothing but residential.

Proof, Slater flatly states, that it can be done.

"I frequently stress to our members, if you don't do this work, someone else will, and who will you blame? I've personally done it all—from a 30-story building to working in a crawl space," Slater says.

"It all depended on where the work was actually happening. Getting into residential can help smooth those dips and troughs our industry periodically encounters."—A.L.C.

Best Practices In Residential Work

Part two of a two-part series provides additional highlights of a Market Expansion Task Force Focus Group on residential work. Participants: SMACNA contractors with experience in this market.

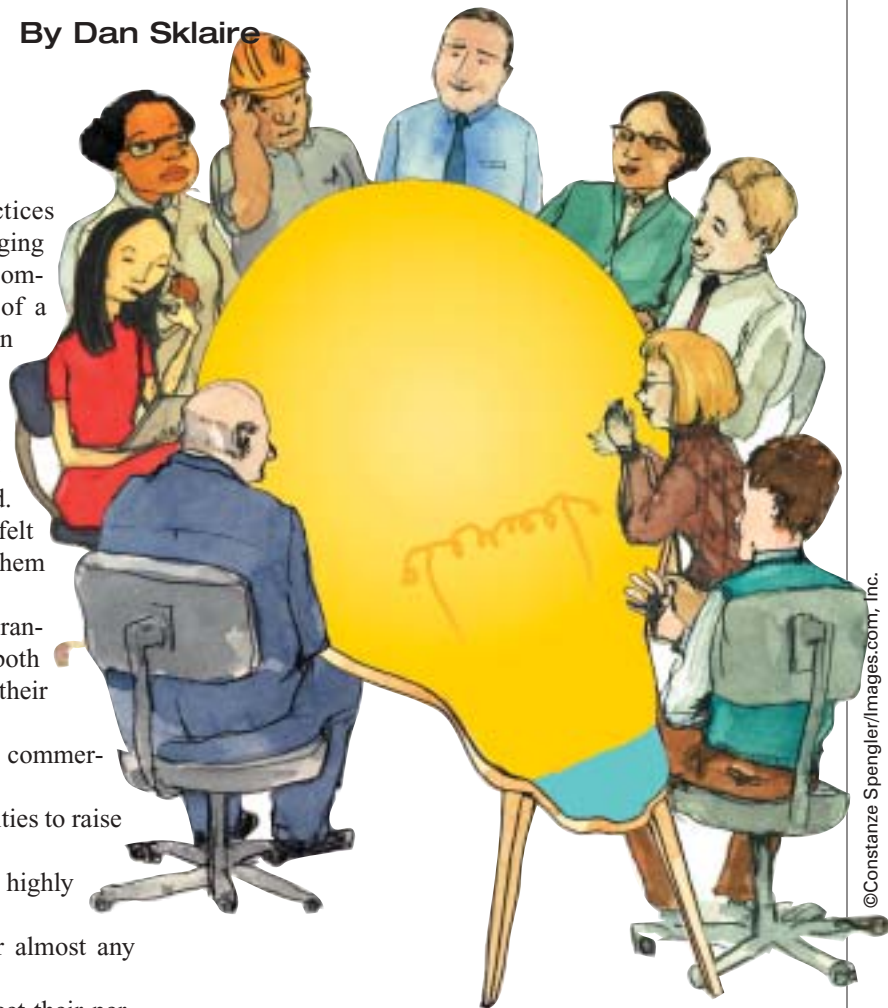
By Dan Sklaire

Contractors spelled out in writing practices which maintained their success in a rapidly changing residential market. It must be realized that the comments were offered by owners and presidents of a number of family-owned, long-established union contracting companies, some of which had a legacy of 100+ years in business.

All were successful, which appeared to put them in the minority of contracting companies doing business in the markets they represented. While non-union shops outnumbered them, they felt the following business practices helped to make them successful.

Editor's note: These practices are listed in random order. These "best practices" emerged both from written submissions by the contractors and their oral comments during the focus group.

- Cross-training workers in residential and commercial contracting.
- Marketing programs and community activities to raise company image.
- Unusual colors on trucks that make them highly visible.
- Pay wages, benefits and course costs for almost any employee.
- Flexible time programs for workers to meet their personal needs.
- Informal meetings with division heads on how management can do a better job.
- Marketing services and SMACNA programs on radio.
- Voice-overs by the contractors on their own commercials to make them "more real."
- Flat-rate pricing on service.
- Visiting job sites to get a handle on worker concerns.
- Joining SMACNA peer groups.
- Restocking work teams with materials in the field to increase productivity.
- Keeping workers in the field, and not in the shop.
- Foremen responsibility for work in specific segment areas of their geography.



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- Selling service agreements.
- Treating employees as family.
- Periodic meetings to keep employees informed of company business activities.
- Birthday bonuses for employees, i.e., one hour's pay for every year with company.
- Extra training for all employees beyond what's available through the union.
- Extended warranty programs.
- Working in niche markets, like geothermal radiant floors, computerized zoning, and tankless water heaters.
- Customer surveys.
- Safety training.
- The best and latest power tools.
- Business cards for all employees to market the company.
- Recruiting carefully, interviewing extensively and sending new hires to the union hall for training instead of hiring out of the hall.
- Uniforms for all outdoor workers.
- Heat loss and gain calls.
- Providing workers with Nextel phones for faster communication.
- Participating in volunteer projects.
- Daily time reports.
- Comprehensive jobsite supervision, i.e., daily visits.
- Door-to-door target selling on new homebuilder tracts.
- Using trained female salespeople to handle company telephones.
- Maintaining contact with existing customers via mailings.
- Aggressive selling of maintenance agreements.
- Utilizing supplier training programs.
- Paying workers over-scale, plus bonuses tied to year-end company profits.
- Paid holidays, because of savings in the health program.
- Using two-man crews at new construction sites to increase productivity.
- Providing workers with a \$20 cell phone allowance.
- Free giveaway trips for key people, like service managers.
- Providing water coolers to workers onsite during warm months.

SPECIFIC CONTRACTOR COMMENTS

On cross-training: "We cross-train all apprentices on residential and commercial. We have apprentices spend two years on residential. This brings our crew cost down on the residential and gives us a better-trained workforce."

On extended warranties: "We implemented service contracts for slow times. Extended warranties can be very profitable if done in-house."

On supervision: "I [the contractor] visit jobsite more often to get a feeling of the concerns and needs of my workers."

'Let's Keep In Touch'

Contractors participating in the residential focus group said they stayed in touch with existing customers by sending them letters and newsletters. These mailings served to reintroduce the contracting company to the customer—or remind them their warranties were about to run out.

Given the resources, participants said that they would call existing customers more often—not necessarily to sell them anything, but to find out if they were happy with a service or product already provided.

Additionally, they would also send Thanksgiving letters, Christmas cards and regular mail hoping to generate new leads, or referrals, or to upgrade equipment already installed. ■

On community service: "Our marketing program includes a lot of community activities, which raises the company image." "We do volunteer projects—putting in a heating system for someone who can't afford it."

On training: "We utilize supplier training programs, even wholesaler programs. Most of them are free. They even come to our shop to do it. You don't have to go to their facility."

On worker relationships: "We provide company-owned trucks for installers . . . we have company softball, bowling, and golfing teams . . . on hot summer days, we [provide] coolers with water and ice for workers."

FACILITATOR SUMMARY

In a single, long-format focus group conducted with successful residential contractors, we learned that the residential market can be successfully approached by SMACNA members.

Such an approach, however, will require considerable focus and caution in the areas which are most opportune. We also learned that there are areas where the SMWIA can help in the residential market, which will offer something for both contractors and labor.

Residential's bright spot appears to be in the retrofit and service business, where the buyer is a homeowner who makes decisions based on relationships and trust—areas in which the focus group members can excel. Most participants reported that this residential sector is the most productive and profitable.

Overall, we believe the residential marketplace offers opportunity to SMWIA and SMACNA, but specifically in the retrofit and service markets—at least to start. Those new to this sector should approach the homeowner market first and consider the new construction/tract housing segment later.

To suggest that SMACNA members move into the residential market in any other way would not be prudent. ■

SKLAIRE, PRESIDENT OF SYSTEMS RESEARCH GROUP (ROCHELLE PARK, N.J.), HAS CONDUCTED SEVERAL FOCUS GROUPS FOR NATIONAL LABOR-MANAGEMENT MARKETING GROUPS, INCLUDING THREE FOR THE SMWIA-SMACNA TEAM.

HVAC DataBank

Commercial Building Heating Equipment, 1999* (floorspace in millions of square feet)

	Total Floorspace	Heated Floorspace
Heat Pumps	8,923	7,819
Furnaces	14,449	11,825
Individual Space Heaters	17,349	14,759
District Heat	5,534	5,330
Boilers	19,522	18,039
Packaged Heating Units	25,743	22,846
Other	4,073	3,489

Note: More than one source may apply in a given building.

Source Energy Information Administration, U.S. DOE
1999 Commercial Buildings Energy Consumption Survey
www.eia.doe.gov/emeu/cbecs/contents.html

Commercial Heating Equipment Shipments

	1992	1995	1998	2001
Water Heaters*				
Gas-Fired	103,386	96,913	94,577	93,969
Electric	22,646	23,906	35,586	46,508
Gas Unit Heaters	130,884	171,256	206,185	166,137
Gas Duct Furnaces	15,144	16,812	15,845	11,049

Note: Water heater data does not include copper tube or coil-type commercial water heaters. Definitions for Residential and Commercial water heaters were changed in 1997; data for 1996 and previous years might not be precisely comparable.

Source: Gas Appliance Manufacturers Association
Residential data also available—
www.gamanet.org/member/statistics/TYS1992-2001.pdf

Commercial Building Cooling Equipment, 1999* (floorspace in millions of square feet)

	Total Floorspace	Heated Floorspace
Residential-Type Central AC	8,329	5,473
Heat Pumps	9,147	7,321
Individual Air Conditioners	14,276	8,142
District Chilled Water	2,750	2,522
Central Chillers	12,909	11,235
Packaged AC Units	36,527	27,481
Swamp Coolers	2,219	1,495
Other	1,312	1,061

Note: More than one source may apply in a given building.

Source Energy Information Administration, U.S. DOE
1999 Commercial Buildings Energy Consumption Survey
www.eia.doe.gov/emeu/cbecs/contents.html

U.S Commercial Building Inventory By Year Constructed—1999 (floorspace in millions of square feet)

	Total Floorspace	Percent of Total
Before 1920	4,023	6.0%
1920 to 1945	6,445	9.6%
1945 to 1959	9,172	13.5%
1960 to 1969	10,866	16.1%
1970 to 1979	11,840	17.6%
1980 to 1989	13,931	20.7%
1990 to 1999	11,094	16.5%
Total	67,337	

Note: More than one source may apply in a given building.

Source Energy Information Administration, U.S. DOE
1999 Commercial Buildings Energy Consumption Survey
www.eia.doe.gov/emeu/cbecs/contents.html

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