Celebrating NRMCA’s 75th Anniversary

Ultra-Thin Whitetopping: The Industry Lines Up Behind an Innovative Technology

9th Annual NRMCA Driver of the Year

Federal Government Develops Green Building Guide Specs
LOOKING TO BUY OR SELL?
If you are thinking of selling your aggregate, ready mix, or concrete products company, call us. We have represented more sellers and buyers in the construction materials industry than anyone else...and as always, all inquiries are confidential.

Interested? Call Bill Allen at 901.755.0010 or Pierre Villere at 985.727.4310, extension 107. Or e-mail us at pvillere@allenvillere.com.

“In 50 years I have never seen a more active market for buying or selling companies.

THIS MARKET IS HOT!”

- Bill Allen
Now you can use the power and effectiveness of World of Concrete to extend your reach to concrete and masonry professionals throughout the Western Hemisphere. Let the industry’s two most cost-effective, order-writing events help you to establish your company as an impact player in the international marketplace.

To exhibit:
WOC US: exhibit@worldofconcrete.com
WOC MEXICO: ekornmeyer@hanleywood.com (US & Canada)
angelica@ejkrause.com (Mexico & International)

To attend:
contactus@worldofconcrete.com

Don’t miss this opportunity to expand your business beyond borders.
Visit www.WorldofConcrete.com

LAS VEGAS, NEVADA = JANUARY 17-20, 2006
SEMINARS: January 16-20
Put the strength and credibility of the commercial construction industry’s largest annual event behind your business. This interactive mega-marketplace gives you an unbeatable opportunity to demonstrate new technology, build brand, produce leads and do more business.

MEXICO CITY = JUNE 15-17, 2005
Expand your connections and increase business by exhibiting at World of Concrete Mexico 2005, where thousands of influential buyers from Latin American and beyond come to see, try, and buy the newest concrete products and technology. A huge success last year—expect even more opportunities this June.
STAY ON TRACK

SCHWING
LOWEST CENTER of GRAVITY
for STABILITY You Can FEEL!

Test Drive #1 Today!
CALL 1-888-SCHWING
FREE CD or VIDEO

ConExpo Booth # Inside: S-8005 Outdoor: S-832

5900 Centerville Road - St. Paul, MN 55127
TEL: 651-429-0999 - FAX: 651-429-3464
See it in Action @ www.schwings.com
Celebrating NRMCA's 75th Anniversary: Decades of Dedication

Ultra-Thin Whitetopping: The Industry Lines Up Behind an Innovative Technology

Federal Government Develops Green Building Guide Specs: Concrete Plays Major Role in Sustainable Construction

Concrete Parking Areas Aren't White, They're GREEN

Concrete Litigation

Duty to Defend the Ready Mixed Industry

What Every Business Needs to Know About Sarbanes-Oxley

CIM Program Update: Concrete Contracting Concentration Approved

Good Neighbor Policy

Truck Tracs: Charles Smith III Named Driver of the Year

Corporate Suite: Creating Value Through Effective Brand Strategies

The Environmental Scene: CEMEX's Texas Plants Pave the Way to Environmental Excellence

Tech Talk: Alkali Silica Reactions

Producer Profile: Technology Improves Path to Profitability

Capitol Comment: Get to Know the New 109th Congress

Safety First: Checklist for Pumping Ready Mixed Concrete

Equipment Talk: Plant Shutdown...At the End of the Day, There is One Last Thing to Do

Education Matters: Speak Softly and Carry a Big Stick

Workforce Issues Q & A

Index to Advertisers
Sand and Gravel Association (NSGA). The association held a special session during its 1929 annual convention to discuss creating a separate organization for the ready mixed industry, as many of its current members were beginning to deal in ready mixed concrete as well as sand and gravel. With very little known about the industry or the types of problems and challenges it might face, members of NSGA voted the National Ready Mixed Concrete Association into existence.

The purpose of this new organization was "protecting the welfare and best interests of those engaged in the production and sale of ready mixed concrete." Any business active in the production of ready mixed concrete was invited to join NRMCA, while suppliers of materials and equipment used by the industry were invited to join as associate members. The association shared office space as well as an executive secretary, Vincent P. Ahearn, Sr., with NSGA at the Munsey Building in Washington, D.C.

During the early years, NRMCA’s most important concern was dealing with the internal problems of the industry. Old equipment designs and engineering techniques were quickly being made obsolete by new and improved devices and ideas; many
ready mix businesses had difficulty keeping up with these rapid changes. Furthermore, there was little collective understanding about the variety of markets that the industry might serve or the potential hazards that might be encountered on the job. The association quickly gained its foothold and by its second annual convention in 1932 was well on its way to developing a plan of action. These early conventions brought members together to discuss such topics as control tests, haulage methods, sales techniques and the effects of varied weather conditions on concrete mixing and placing. They were held in conjunction with those by NSGA and featured a Concrete and Aggregate Show of equipment used in aggregate mining, concrete production and delivery. NRMCA also joined in hosting annual safety contests, a tradition started by NSGA in 1929, the winners of which were honored at the conventions.

With the country in the midst of the Great Depression, the young association very quickly became active in government relations. The National Industrial Recovery Act of 1933 was designed by President Franklin Roosevelt to stimulate the nation’s economy by establishing codes for all manufacturing and mining industries. An effort was made to include the ready mixed con-

These early conventions brought members together to discuss such topics as control tests, haulage methods, sales techniques and the effects of varied weather conditions on concrete mixing and placing.
Concrete industry under the act’s Code of Fair Competition for the Building Supplies Industry and NRMCA encountered resistance to its claims that the ready mixed industry was a separate and exclusive production business and therefore entitled to this recognition. Because of NRMCA’s protestations, the fight for acknowledgment as a separate industry was won and the ready mixed industry was included in the code. Although the act was found unconstitutional and repealed two years later by Congress, an important precedent had been set: the ready mixed industry was a legitimate business in its own right and would thus be treated as such.

The association continued to speak for the industry while dealing with the ramifications of the Walsh-Healey Act of 1936 and the Federal Wage-Hour Law of 1938. Among other things, these acts set minimum wages and maximum hours for all workers engaged in interstate commerce. Soon after their enactment, questions arose regarding the laws’ potential interpretations, limitations and what exactly “interstate commerce” meant in relation to the ready mixed industry. Field inspectors advised some member companies that they were subject to the law if they purchased cement from another state, even if the final concrete product itself didn’t leave the state. The association protested and quickly obtained a ruling from the government that using cement from outside the state in which the ready mixed concrete was produced did not cause the Wage-Hour Law to apply to those ready mixed employees. It was also ruled that ready mixed employees were not subject to the law simply because the concrete they produced might be used to build highways and bridges for interstate travel. The association was active in preventing the use of unfair enforcement methods, which, unless successfully challenged, would have cost the industry great amounts of money in fees and fines.

From the beginning, NRMCA dedicated a great deal of time and effort to concrete engineering and research activities. The association helped support a research laboratory originally founded by NSGA in 1926, which moved from Washington, DC, to the University of Maryland in 1938. The association’s first director of engineering, Stanton Walker, was a leader in the field of concrete technology and wrote NRMCA’s first publication, Estimating Quantities for Concrete, in April 1931. Walker was active in ASTM and instrumental in the adoption of the first tentative ASTM C 94, Standard Specification for Ready Mixed Concrete, in 1933. It provided for ready mixed concrete to be sold in a fresh and plastic state and was made possible in part because of research performed by NRMCA.

As early as 1932, the association held forums regarding standard methods of testing concrete, quality control and plant operations. NRMCA spent the latter half of this decade continuing to deal with the issues that affected the industry, gathering its members for annual conventions that featured seminars and open forums to discuss the industry’s most pressing concerns. The conventions were held in different cities each year, including St. Louis, Chicago, Memphis and Cincinnati. At the 1933 Detroit convention at the Book-Cadillac Hotel, single rooms were rented for $3 a night and doubles for $5.

1940-1949

The 1940s was a decade of huge expansion for the ready mixed industry and NRMCA. With the outbreak of war in December 1941, ready mixed demand increased sharply. The industry contributed greatly to the war effort and in 1942 it broke all production records with a total concrete output estimated at 24 million cubic yards. NRMCA was active in developing wartime policies that helped the industry achieve this record – for example, the War Production Board awarded special recognition to the industry and established priority procedures that enabled it to get necessary equipment and parts. By submitting an application to the War Contracts Price Adjustment Board, NRMCA was able to gain the industry’s exemption from price renegotiations. This was an important ruling for the industry; without the exemption, the Price Adjustment Board could have demanded contracts be renegotiated if it considered a contractor’s profits to be excessive. This would have resulted in an additional tax on the contractor. Another victory procured by NRMCA was obtaining a ruling that the ready mixed industry was not a part of the construction industry and therefore was not subject to wage determinations under the Davis-Bacon Act. With this protection, the economy of the industry was allowed to further develop and indeed it flourished during World War II. Wartime concrete was used for numerous and innovative tasks, from building concrete naval ships, coastal defense lookout towers and the concrete docks used during the D-Day invasion of Normandy.

Against the backdrop of war, the association continued to further the potential of the industry. The engineering staff and the

“… nobody seemed unwilling to concede that the ready mixed industry stood on a separate footing, that it had an important job of its own to do, that it was fulfilling a necessary function in carrying out the construction program of the country, and that it was destined to grow and expand…” pg. 22, 1948 history
research facility at the University of Maryland in College Park persisted in their dedication to the industry. The laboratory allowed the association to conduct laboratory research into problems relating to ready mixed concrete, the results of which were made public at conventions and in widely circulated publications. NRMCA participated in groundbreaking research regarding the proper use of entrained air in ready mixed concrete, which had been discovered to make concrete more durable in freezing and thawing climates. The association was also instrumental in developing the first pressure meter to measure air-entrainment in concrete, which is still at the lab today.

Additionally, the association began to sponsor a Short Course in Concrete and Concrete Aggregates in 1946, featuring such topics as concrete proportioning, aggregates, cement, fly ash, admixtures, and production and control of ready mixed concrete. The Short Course has grown from modest beginnings into one of the most important services that NRMCA offers both members and non-members alike. NRMCA also established in 1947 the Stephen Stepanian Graduate Fellowship at the University of Maryland, named for an important figure of the ready mixed concrete industry who was named an honorary member of NRMCA in 1953. The fellowship was open to qualified graduates in engineering and included course work and laboratory research related to ready mixed concrete.

The year 1947 was the first full year of peacetime operations for the industry since the onset of WWII. Concrete operations began focusing on the multitude of state-side projects that had been placed on hold when wartime operations became first priority. For the first time, NRMCA performed a nationwide survey of wage practices and working conditions, which were published in a comprehensive report and distributed to members. In the 1940s, the Truck Mixer Manufacturers Bureau, a group of mixer truck manufacturers, was established to promote common goals and support the ready mixed industry. Members of TMMB are required to manufacture equipment in accordance to TMMB standards, which have been continuously updated throughout the years in response to technological advances. These original TMMB standards were based on NRMCA laboratory research and a subsequent 1941 publication titled Standards for Operation of Truck Mixers and Agitators. Throughout the ’40s, the association continued to hold yearly conventions that cycled among St. Louis, Cincinnati, Los Angeles and New York. The machinery and equipment exposition was halted from 1943 to 1947 due to wartime considerations but resumed in 1948. In 1949, the industry produced an all-time high of 27.5 million yards of ready mixed concrete, valued at $275 million. On the brink of the century’s halfway mark, the ready mixed industry had grown considerably, playing an essential role in the nation’s economy and development.

1950-1959

The ready mixed concrete industry rode the waves of its post-WWII boom into the 1950s. In 1952, the association attempted its most precise and reliable appraisal of concrete production yet via questionnaires sent to members. The survey revealed that in 1951, producers used over 50 million barrels of cement to produce a total of 37.8 million cubic yards of ready mixed concrete, valued at more than $424 million. By 1953, the association represented 576 members in 47 states and a number of foreign countries, including Australia, Brazil, Denmark, England and New Zealand. NRMCA members accounted for approximately 80% of the total annual volume of ready mixed concrete produced at the time in the United States.

While the industry was clearly thriving, the first half of the decade was overshadowed with constant concern regarding cement shortages. While shortages had occurred in various parts of the country since the end of WWII, the problem became acute in the early ’50s in the Great Lakes states and those on the Atlantic Seaboard. Although the cement industry

“Our two industries emerged from World War II with records of which they may be well proud. They contributed to the basic construction materials in the great building program made necessary by war requirements. Despite extraordinary demands for sand and gravel and ready mixed concrete throughout the United States, our two industries, handicapped by shortages of equipment and plagued by manpower problems, managed to produce materials in wholly unprecedented quantities. Nowhere did we fail to deliver…” (1946 program, page 4)
Concrete professionals have relied on Master Builders since 1909 for solutions to their concrete problems.

**Products you’ve trusted:**
- Pozzolith®
- Rheobuild®
- Pozzutec®
- PolyHeed® — the best-selling admixture in North America

**Leadership in innovation:**
- Glenium® — a new family of superplasticizers
- Rheodynamic® — Self-Consolidating Concrete
- 4x4™ Concrete — 400 psi flexural in 4 hours for fast, full-depth pavement repairs.

Recently, Master Builders changed its company name to Degussa Admixtures, Inc., part of the Degussa family, the global leader in specialty chemicals. Together, some of the finest technical minds in the world are working to provide you with solutions to tomorrow’s construction challenges.

For nearly 100 years, the name Master Builders has meant products, service, and support you can count on, and we don’t plan to change that. Degussa Admixtures will continue to sell Master Builders brand products, and provide the technology and value producers depend on every day.

Visit us at Booth 8027
In the South Hall
at ConExpo-Con/Agg

800-628-9990
www.masterbuilders.com
In 1956, ready mixed concrete production topped 100 million cubic yards for the first time. That same year, after much debate the Federal Highway Act was passed, authorizing the biggest public works project in the nation’s history.

continued to break all production records with each year’s output, it was not enough to keep up with the concrete industry’s demand. Many felt that the cement industry was denying the ready mixed industry its fair share of the available cement and NRMCA responded by adopting a number of resolutions encouraging mutual efforts by both the cement and concrete industries to end the shortage disputes.

NRMCA engineering and research activities were in full swing during the early parts of the decade. In 1950, NRMCA published Control of Quality of Ready-Mixed Concrete, an unbiased testing authority on the evaluation of admixtures for use in concrete. Later, this research assisted in developing specifications for chemical admixtures. That same year, NRMCA distributed Recommended Practices for Sampling and Testing Ready-Mixed Concrete, a publication critical to the development of ASTM C 172. In response to a number of state highway departments reluctance to use ready mixed and trust its reliability as a building material, NRMCA began an exhaustive truck mixing uniformity study in 1952. The purpose was to study mixer performance and demonstrate that truck-mixed concrete could be made with reliable uniformity – which the association proved true. The results provided a great deal of information about loading techniques, mixing and quality product production. Eventually, this study resulted in developing mixer test procedures that were incorporated into ASTM specifications.

The featured speaker of the 1954 convention in Chicago was the Honorable William Sterling Cole of New York, Congressional chairman of the Joint Committee of Atomic Energy. Although he had informed NRMCA and NSGA that he was going to give a very important talk dealing with a subject of utmost importance, the associations were kept in the dark as to the exact nature of the speech. Cole kept his word, though, stunning his audience with the news that the United States had perfected the world’s first...
hydrogen bomb: “That thermonuclear test of 1952 completely obliterated the test island in the Eniwetok Atoll. It tore a cavity in the floor of the ocean – a crater – measuring a full mile in diameter and 175 feet in depth at its lowest point. Filling this crater would require more than four and a half million truckloads of sand and gravel.” His speech made the front page of every major newspaper around the world the next morning.

The Association celebrated its 25th anniversary in 1955 and held that year’s annual convention in Miami. The commemorative pamphlet noted that “… it is difficult to realize that twenty-five years have passed since the National Ready Mixed Concrete Association was launched... time has passed swiftly, but now, all of a sudden, the infant of 1930 is celebrating its Silver Anniversary.” The anniversary allowed time to celebrate NRMCA’s long list of accomplishments thus far, although the association was ever mindful that there was still much work to be done.

In 1956, ready mixed concrete production topped 100 million cubic yards for the first time. That same year, after much debate the Federal Highway Act was passed, authorizing the biggest public works project in the nation’s history. President Eisenhower signed the bill into law and thus set into motion the construction of 41,000 miles of concrete interstate highway, creating abundant work for the ready mixed industry.

Two years later NRMCA played a key role in the formation and organization of the Concrete Plant Manufacturers Bureau. The success of its decade-old sister organization, the Truck Mixer Manufacturers Bureau, made clear the practicality of using a set of standards to rate industry machinery and technology. This practice was adopted by CPMB to assess concrete plants and related equipment; its ready mixed members conformed to these standards and were therefore endorsed as preferred providers of concrete.

As a result of research performed at the laboratory, a paper by Stanton Walker, Delmar Bloem and Richard Gaynor entitled Relationship of Concrete Strength to Maximum Size of Aggregate was published in the 1959 proceedings of the Highway Research Board.

Look for another installment in the history of NRMCA in the summer edition of Concrete InFocus.
Most of Bayer Chemicals has been combined with parts of Bayer Polymers to form a new company called LANXESS Corporation, which began doing business on July 1, 2004. LANXESS will continue the proud tradition of providing quality products like Bayferrox C granular pigments to the most success-driven customers in the concrete industry.

www.US.LANXESS.com
www.Bayferrox.com

Bayferrox® is a registered trademark of Bayer AG, Germany.

Rainbow without the rain.

With Bayferrox® C granular pigments, you can have the rainbow without the rain. Fast, easy, accurate, more economical color without the added cost of shipping water. Now that’s a bright idea.

Buy color — not water.

With liquid colors, you are paying your supplier for processing pigment with water, plus more for shipping all that water. Instead, it’s more cost effective to let a color metering system make the liquid color for you using dry Bayferrox C granular pigments and your own water. How? Just pick the shade you want, then batch by batch when you need color the enclosed system mixes the pigment granules with water and transfers the slurry to your mixer or truck. A rinse cycle follows each batch. It’s fast, accurate simple, and totally automatic.

Many companies in various industries have learned that with Bayferrox C pigments and a dry-to-wet color metering system, they can reduce their pigment and freight costs compared to pre-manufactured liquid colors. Cycle times are the same, and the pigment disperses in the concrete mix quickly and evenly. You really ought to check it out.

For more details, call LANXESS at 1-888-422-9337 or visit us at Bayferrox.com.
New trucks from Mack® aren’t launched. They’re unleashed.

Let us introduce you to the Granite® Axle Back featuring the new Cornerstone™ chassis that provides more rail options and greater strength with less weight. The new Granite Axle Back gives you improved maneuverability, ride and handling. With Mack’s best built cab ever, featuring more space and comfort. No wonder the Granite Axle Back is the next line of trucks that will continue to carry our legendary jobsite reputation. The Granite Axle Back. Jobsite Proven.™ To find out more, visit us at www.macktrucks.com. See your local dealer or call 1-800-922-MACK to locate a dealer near you.
9th Annual National Ready Mixed Concrete Truck Driver of the Year

Charles Smith, III Named Driver of the Year

The National Ready Mixed Concrete Association has announced the winner of the 2004 Ready Mixed Concrete Truck Driver of the Year. This year’s winner is Charles Smith III of Southern Concrete Material, Inc., Asheville, NC. A panel of judges from the ready mixed concrete industry selected Smith as the “top driver” from a large group of outstanding drivers from across the entire country.

Smith has been with his company for more than 30 years…without a rejected load or an accident! Among his many commendations are 30 consecutive SCM Safe Driver of the Year awards, SCM Black Hat for Safe Driving Award and SCM “5 star” award for lifetime safe driving and safe driving practice.

According to Gary Gresh, vice president of safety for Southern Concrete Materials, “Charlie’s enthusiasm is infectious, and his love of life and his work shows in everything he does and touches. He is the consummate professional in every way and exceeds all standards expected of our drivers.”

Smith delivers concrete to projects in the mountains of North Carolina, some of the toughest terrain in America. Once while pouring footings for a new cellular tower in a remote area on Spivey Mountain, Smith had to back his truck to the location, a distance of more than four miles!

As the winner of the 2004 National Driver of the Year, Smith will be awarded a check for $5000 from the Truck Mixer Manufacturers Bureau. The Driver of the Year Awards program is co-sponsored by Concrete Products magazine.

The award acknowledges the significant contribution of ready mixed concrete truck drivers to the growth and success of individual companies and the concrete industry. As a salute to the key members of the concrete production team, the award highlights the driver’s career achievements, safety, professionalism, competence and customer service skills.

“Charlie’s enthusiasm is infectious, and his love of life and his work shows in everything he does and touches. He is the consummate professional in every way and exceeds all standards expected of our drivers.”

2004 NRMCA Driver of the Year Nominees

Rudy Beukinga, Ozinga Illinois RMC, Inc., Mokena, IL
Jeff Briscoe, Superior Concrete Materials, Inc., Lanham, MD
Albert Butterfield, Four Corners Materials, Farmington, CO
James Cornillie, Superior Materials, Inc., Detroit, MI
Richard Dudley, Chandler Concrete Co., Inc., Roanoke, VA
Bronson Hays, Wyoming Concrete, Dover, DE
Charles Hodge, Ready Mix Concrete Co., (US Concrete), Knoxville, TN
Charles Johnson, Aggregate Industries, Annapolis, MD
Isral King, Metro Ready Mix Concrete, Inc., Nashville, TN
Robert McMurray, S.T. Griswold, Williston, VT
John O’Donnell, Independence Construction Materials, Devault, PA
Curtis Rodriguez, Transit Mix Concrete, Waco, TX
Mark Sachse, Maschmeyer Concrete Company, Inc., West Palm Beach, FL
Willie Scott, Augusta Ready Mix, Augusta, GA
Jon Shoultz, IMI Southwest, Evansville, IN
Charles Smith, III, Southern Concrete Materials, Asheville, NC
Ronald Swingle, United Materials, Lancaster, NY
Eddie Thompson, Chandler Concrete Co., Inc., Greensboro, NC
Harold Townsend, Chandler Concrete Co., Inc., Mountain City, TN
Robert T unstall, Titan Concrete, Memphis, TN
Ben Well, Rempel Bros. Concrete, Ltd., Langley, B.C.
Jeff Winters, Ozinga Indiana RMC, Inc., Gary, IN
All the judges concurred that the group of drivers nominated this year were of a very high caliber, making it extremely difficult to select winners. Along with the Driver of the Year, the judges also honored the top four finalists in the contest. In alphabetical order, the finalists are:

- **Richard Dudley**, Chandler Concrete Company, Inc. Roanoke, VA, (52 years of driving a mixer truck and no rejected loads);
- **Charles Hodge**, Ready Mixed Concrete Co. (US Concrete), Knoxville, TN (40 years of driving a mixer truck without a vehicle accident);
- **Charles Johnson**, Aggregates Industries Mid Atlantic, Annapolis, MD (37 years of driving a mixer truck and 2002 NRMCA Driver of the Year Finalist); and
- **Curtis Rodriguez**, Transit Mix Concrete, Waco, TX (44 years of driving a mixer truck and a million mile accident free driver).

All of the finalists will receive a check for $500 from the Truck Mixer Manufacturers Bureau.

The National Ready Mixed Concrete Association congratulates all the honored drivers and their families and recognizes the support and sacrifices that a driver’s family endures. NRMCA also commends all of the other outstanding drivers and their companies who were nominees for the award. They are the finest this industry has to offer.

The Driver of the Year and finalists will be honored March 13 at the 75th Anniversary Gala during the NRMCA Annual Convention in Las Vegas, NV.
The Industries Premier Drum Liner

- New improved attachment method - more aggressive hold
- The most cost effective liner system available
- 10% factory rebate on any spec'd liner
- Averages 50% longer wear life in all applications
- High performance O.E.M. grade
- Industries only dual durometer liner
- Best backed warranty in the industry
- Superior abrasion resistance
- 18 years of proven field performance

They say imitation is the best form of flattery. Well we here at Argonics are truly flattered so many other polyurethane manufacturers have tried to recreate our Premium Green Dual Durometer formula. But try as they might, no one can match the wear life and durability of the original.

Trust in the original Green!

If it doesn’t say Argonics, it’s only a cheap copy!

The Dual Durometer Difference...

Available Only From Argonics!

Super abrasion resistant polyurethane top layer

Originator of the weld-in design

Stiff polyurethane bottom layer retards concrete creep (penetration under liner), locks in weld plates and acts as a visual wear indicator

Exclusive Snap-Tite™ plug

Come See Us

Argonics, Inc.
Performance Polyurethanes
1-800-991-2746  www.argonics.com

Argonics' color Green is a registered trademark of Argonics, Inc.
Competition for recognition is as ancient as the medieval battlefield. No longer limited by physical terrain, managing perception now extends to cyberspace and beyond. The battle for physical territory has evolved into the competition for share of mind. The velocity of life in the future will demand that brands, more than ever, be leveraged to create customer value in pursuit of competitive advantage.

A brand is the promise, the big idea and expectations that reside in each customer’s mind about a company, product or service. People fall in love with brands – they trust them, develop strong loyalties, buy them and believe in their superiority. The brand is shorthand: it stands for something and demonstrates it.

Branding is big business.

Since the beginning of time, the need to communicate emerges from a set of universal questions: What is it? Who needs to know about it and why? Why support it? How should they respond to it? Individuals, communities and organizations express their individuality through their identity. On the continuum from cave paintings to digital messages transmitted via satellite, mankind continues to create an infinite palette of visual and verbal expression.

A brand is the promise, the big idea and expectations that reside in each customer’s mind about a company, product or service. People fall in love with brands – they trust them, develop strong loyalties, buy them and believe in their superiority. The brand is shorthand: it stands for something and demonstrates it.

Branding used to be the exclusive domain of big consumer products. Now, many businesses talk about the brand imperative. Why have brands become so important? Bottom line: good brands build companies. Ineffective brands undermine
success. As products and services become indistinguishable, as competition creates infinite choices, as companies merge into faceless entities, differentiation is imperative.

While being remembered is essential, it’s becoming harder every day. A strong brand stands out in a densely crowded marketplace. Translating the brand into value has become the mantra of the savvy company. There is substantial evidence that companies whose employees understand and embrace the brand are more successful. What began as corporate culture under the auspices of human resources is fast becoming branding, with strategic and corporate planning and marketing running the show.

While brands speak to the mind and heart, brand strategy appeals to the senses, is tangible and ultimately translates into action. Brand strategy is the expression of a brand. It supports, communicates, synthesizes and visualizes the brand. It is the shortest, fastest and most direct form of communication available. It begins with a brand name and builds exponentially into a matrix of tools and communications. On applications from business cards to websites, from advertising campaigns to equipment, products and services, brand strategy increases awareness and builds businesses.

The need for effective brand strategy does not distinguish between size of company, from new and small to large and merged organizations that need to establish, reposition or repackage themselves. The best brand strategy systems are memorable, authentic, meaningful, differentiated, sustainable, flexible and have value. Recognition becomes immediate across cultures and customs.

Brand and brand strategies are assets that must be managed, nourished, invested in and leveraged to translate into value in the mind of customers.

Building brand awareness and recognition is facilitated by a visual identity that is easy to remember and immediately recognizable. Visual identity triggers perceptions and unlocks associations of the brand.

Vision, more than any other sense, provides a person with information about the world. Through repeated exposure of certain brand identities, symbols become so recognizable that companies such as Apple, Nike and McDonald’s have actually dropped the logo-type from their corporate signatures in national advertising. Color becomes a mnemonic device – today, when you see a brown truck out of the corner of your eye, you know it’s UPS.

On an average day, from the moment we wake up to the time we go to sleep, we experience some three thousand marketing messages – from the medicine cabinet to the refrigerator; from the mailbox full of magazines, catalogues and credit card offers to the desktop computer and television; from cell phones and PDAs to the clothes we wear. In every one, organizations have considered how we, as customers, will adopt the company, its products and services.

Every company needs to differentiate itself from its competitors in pursuit of increased customer loyalty and earnings. Survival of the fittest requires a brand strategy and a medium to express it.

The best brand strategies embody and advance the company by supporting desired perceptions, encompassing every tangible expression of the brand and the company’s culture – a constant reminder of its core values and its heritage. The mark, or symbol, is at the pinnacle of a branding pyramid; when the customer sees it, recognition fuels comfort and loyalty and sets the stage for a sale. A stellar identity demonstrates rather than declares that familiarization, from the discovery of needs to the point of purchase and beyond to the establishment of a lasting customer relationship.

Practically every book on brand strategy will remind you of the present value of the Coca-Cola brand, which seems to increase even when the economy falters. If the Coke brand is worth $83.8 billion, one needs to assume that the Coca-Cola logotype, its mark or symbol, and its packaging design are brand assets that have intrinsic value.

Characteristics of Successful Brand and Brand Strategy

The basic question is what makes one brand and brand strategy better than another and why? What are the essential characteristics of the best strategies, and furthermore, how does one define them? These characteristics, or ideals, are not about a certain aesthetic. The best identities are most effective when they help advance the company’s perception by customers and increase company earnings.

The best brands and brand strategies stand for something – a big idea, a position, a defined set of values, a voice that stands apart – all translating into an authentic expression of an organization – its unique vision, goals, values, voice and personality. The messages and initiatives that emerge from the company all support the brand.

We live at a time when we are bombarded by brands. Brands obviously compete within a given business category, and at some level compete with all brands for attention and customer allegiance. Their uniqueness and differentiation, therefore, in part determine their success.

In the 21st century, the only reliable constant is change. Organizations and the people who run them, technology and the very mediums by which we conduct business are in continuous flux, and the rate of change is accelerating. As such, sustainability is a critical factor in brand success. Sustainability is the inherent ability of a brand to have longevity in a dynamic environment; where the symbol or mark is the constant and the messages, products and services change to meet the demands of customers and the marketplace.

Successful brands are messengers of trust. Credibility is communicated when the symbol or mark does not fluctuate with the economy or changing business trends. Consumers depend on them to be constant, so that whenever they see them – on the package of a product, emblazoned on a truck, on an ad in a magazine or even on a...
Visit ERIE Strayer booth S730 during Conexpo-Con/Agg in Las Vegas, Nevada March 15 - 20 2005. See close up the ERIE MG-12CP, the premier concrete paving plant offered in today’s competitive market.
Brands provide a central unifying idea around which all behavior, actions and communications are aligned.

Stellar programs easily adapt to a broad range of marketing and communications applications over time to achieve sustainability. Flexibility ensures that communications stay fresh and relevant.

Managing Brand Strategy

A good brand strategy does not guarantee success. It’s not enough to create an effective brand name and expect it to sustain itself. Brands also do not thrive in environments of mediocrity. The corporate world is full of leaders with great aspirations who follow through poorly and for whom rationalizing the worst behavior and performance on the planet has become an art form. Then, too, there are the young Turks, the Teflon-clad upwardly mobile fast-track generation who flit from one project or assignment to the next without ever accepting accountability for anything. These individuals derail successful brand strategies. Therefore, perhaps the most important characteristic of brand strategy is taking responsibility for actively managing the asset, which includes the brand name, the processes and the standards by which success will be measured. A common mistake that organizations make is the assumption that once a company has established a brand, the hardest work has been accomplished. In reality, the whole process is just beginning and the hard work is ahead.

The best companies lead with an unparalleled commitment to quality and seize every opportunity to grow their brand. They fundamentally believe the brand is tied inextricably to management’s desire to nurture it. The bottom line is that brand strategies need to be established, reinforced, tweaked, monitored and occasionally revitalized. New programs, products or services supporting the brand signify the beginning of an investment of time and capital, not the end. Successful companies proactively manage the brand and rigorously monitor the metrics that chart its success.

Managing a brand strategy is not exclusive to large global corporations; clearly, it is easier when there is a corporate brand manager whose sole responsibility is overseeing the brand. Small companies also need an individual who has the responsibility for overseeing the brand assets and who reports directly to the president. The objective is to keep moving – with ongoing management, dynamic adherence to the central idea, monitoring standards that help preserve the asset and a commitment to provide the tools the organization needs to build its brand.

Brands and the Creation of Value

Creating value is the indisputable goal of most organizations. The best companies consistently demonstrate value through the superior quality of products and services and unwavering dedication to meeting customer needs. Brands are the most public and widely communicated symbols of that value.

Brands provide a central unifying idea around which all behavior, actions and communications are aligned. Brand strategy builds on that idea, emerging from a company’s history and culture and reflects an in-depth understanding of the customer’s needs and perceptions. The best brand strategies are so differentiated and powerful that they deflect the competition. They are a true and accurate extension of a company’s persona. They are easy to talk about by the chief executive or any employee within an organization. The brand strategy in essence defines positioning, differentiation, the competitive advantage and creates a unique value proposition for the organization.

Successful brands and brand strategy, therefore, assist in the creation of customer value by building awareness, increasing recognition, communicating uniqueness and superior quality, and expressing a differentiated competitive offering.

It is important to note that for a brand strategy to result in the creation of customer value, it must resonate with all stakeholders – external customers, influencers, the finan-
Smart organizations use brands to involve as many stakeholders as possible in the vision and mission of the organization.

Brand Processes

Brand processes are proven and disciplined methods for creating and implementing brands and brand strategy. It is a rigorous process demanding a combination of investigation, strategic thinking, design excellence and project management skills. It requires an extraordinary amount of patience, an obsession for getting it right and an ability to synthesize vast amounts of information.

Regardless of the size and complexity of the brand strategy, the process remains the same. What changes is the depth with which each phase is conducted and the amount of time and resources allocated.

The process is defined by distinct phases with logical beginning and ending points, including periodic benchmarks, which allow decision making at the appropriate intervals. The process, when followed with discipline, can achieve remarkable results.

Expectations of Effective Brand Implementation

Successful brand and brand strategies create customer value and provide companies with a competitive advantage by:

- Assuring customers that proven methods are used to achieve stated business objectives and results;
- Building credibility through the ability to provide solutions to customer needs;
- Engendering customer trust and loyalty in the company, its people, products and services;
- Broadening customer relationships through product and service performance; and
- Increasing earnings for all.

Smart organizations use brands to involve as many stakeholders as possible in the vision and mission of the organization. A unified focus centered on the brand and brand strategies that support key initiatives makes it easier to stay in tune with changing market demographics, the competitive landscape and the needs of valued customers while allowing the company to optimize operating efficiencies through a common vision. Shared values lead to increased earnings for all and the creation of true customer value.

Stephen Roebuck is president of Roebuck Consulting Group. For more information, contact Roebuck at (813) 251-8838 or via email at sjroebuck@roebuckconsulting.com.
PROTECT YOUR CONCRETE SLAB INVESTMENT.

SOFF-CUT® is the only real solution for eliminating random cracking in concrete.

Today’s demand is for a better looking slab, natural looking floors and a job done on time. The only way to achieve this is by cutting the slab right after troweling—before micro cracking has begun.

Soff-Cut International, Inc. is a proud member of the American Concrete Institute.

The following is an excerpt from ACI-302.96 (Guide for Concrete Floor and Slab Construction):
The Early-Entry Dry-Cut process is normally used when early sawing is desired. Early-Entry Dry-Cut joints are formed using diamond-impregnated blades. The timing of the Early-Entry process, however, allows joints to be in place before development of significant tensile stresses in the concrete; this increases the probability of cracks forming at the joint when sufficient stresses are developed in the concrete.

1-800-776-3328 • www.soffcut.com
The concrete industry worked as one in Illinois to showcase the benefits of Ultra-Thin Whitetopping for asphalt repair and rehabilitation. Local ready mix producers donated trucks and drivers for the project including Mohr & Sons, Meyer, Baja, Thelen, Aztec, Ozinga and Vans.

Ultra-Thin Whitetopping

The Industry Lines Up Behind an Innovative Technology

It's not often that an industry lines up behind a new technology – when local organizations come together in the spirit of cooperation and innovation to showcase a different way of doing things. But that's exactly what happened in a Chicago parking lot on a sunny day last August. Actually, the innovation was the resurfacing of the parking lot itself.

Owned by the Illinois Department of Transportation (DOT), the 45,000-square-foot parking lot was turned into a demonstration project and working laboratory with the installation of an Ultra-Thin Whitetopping (UTW) overlay, which DOT representatives could test and monitor over time.

Recognizing the value of the project and the technology behind it, local ready mixed companies, businesses and associations – over 250 attendees in all – came together to volunteer their time, knowledge and materials in an unprecedented show of support.

A New Coat of Armor

Of course, there have been innovations in pavement solutions through the years: the use of sandstone and limestone in early Egyptian roads; the use of light reinforcing bars or welded wire fabric thousands of years later; and the use of synthetic macro fibers...
with concrete overlays over asphalt known as whitetopping. But while whitetopping overlays of four inches or more over asphalt have been used for more than 60 years, Ultra-Thin Whitetopping of less than four inches that incorporates synthetic macro fibers for residual strength for tight crack control has only recently become a cost-effective option when compared to asphalt overlays.

“The challenge today is trying to deal with increasingly heavy traffic loads and short windows of opportunity to accomplish construction,” said Randell Riley, engineering consultant for the Illinois Chapter of the American Concrete Pavement Association. “We’ve never had a maintenance or rehabilitation system that’s economically competitive with asphalt. With Ultra-Thin Whitetopping, by bonding the thinner con-
CHRYSO® Fluid Optima
CHRYSO® Fluid Premia
CHRYSO® Plast Omega

for high performance concrete

A comprehensive range of type A, F, G water reducers and CHRYSO know-how, combine to deliver customer solutions: high flowability, high early strength / long slump retention (> 2 hours), and self-consolidating concrete.

Readymix:
CHRYSO® Fluid Optima 100
CHRYSO® Fluid Optima 200
CHRYSO® Fluid Optima 203
CHRYSO® Plast Omega 101

Precast:
CHRYSO® Fluid Premia 100
CHRYSO® Fluid Premia 180
CHRYSO® Fluid Premia 190
concrete slabs to the asphalt, you get the best benefits of both. It’s almost like putting a coat of armor on the existing asphalt.”

While concrete resists rutting, shoving and pushing that distresses asphalt, the ability to carry the kinds of heavy loads required today is a result of recent advances in adhesion, structural fibers and shorter joint spacing. By controlling and containing curling and working stresses, and controlling the development of load stresses, a system is created that provides a stronger, longer-life maintenance solution.

Simple Math

“It’s a matter of economics,” said Melvin Kirchler, bureau chief of materials for the Illinois DOT. “The value of an Ultra-Thin Whitetopping overlay is at high stress locations such as bus stops, loading areas and parking lots — anywhere with high volume traffic. Technology is always changing and specs are always improving. New synthetic macro fiber technology represents a significant change in the capabilities of concrete. And with advances in saw cutting and spacing, it brings our initial costs down.”

The affordability and capabilities of Ultra-Thin Whitetopping open up a whole new market opportunity that didn’t exist before, providing a cost-effective concrete maintenance and rehabilitation solution.

“Crews can get in, perform the repair, get out and stay out,” noted Richard Plimpton, director of marketing at the Illinois Ready Mixed Concrete Association. “It’s not just the initial cost; it’s a lifecycle issue. Asphalt roads that had an 8-10-year life can last 15-20 years with Ultra-Thin Whitetopping at an estimated 20-25 percent increase in cost of materials. That’s a good bang for the buck.”

Everyone benefits. Cities can use repair budgets more effectively. Drivers find routes to work aren’t disrupted as frequently. And with asphalt costs rising and the problems of recycling and disposing of asphalt, the use of Ultra-Thin Whitetopping extends the value and potential uses of concrete. With its thinner overlays, Ultra-Thin Whitetopping also works in applications with grade limitations, including drains, curbs and gutters that would exclude the use of thicker overlays.

“Shocking” Results

While concrete whitetopping projects have been considered experimental by many DOTs, the purpose of the demonstration project in Illinois was to produce a specification and mix design that would make the use of Ultra-Thin Whitetopping competitive with asphalt for the longer duration rehabilitation and repair of high-traffic or high-load areas. In addition to developing the specification, the success of the project exceeded expectations.

“The results are outstanding — shocking, actually,” said the Illinois DOT’s Kirchler. “The results don’t come close to borderline. When you’re doing testing on a project of this size, you always expect some type of failure. We haven’t experienced any — and that’s not the norm.”

A battery of tests were performed, including flexural strength, compressive strength, freeze-thaw and salt ponding, each with results that surpassed asphalt. And the Illinois DOT continues to test and monitor the performance of the parking lot, keeping a
LOOKING FOR READYMIX RECLAIMERS???

WWW.LEFTOVERCONCRETE.COM

“Recycle; It’s A Concrete Solution”

CALL 281-858-8844
close eye on what has become a working laboratory right next to its headquarters.

Just as importantly, the new Ultra-Thin Whitetopping specification passed the test of affordability for the Illinois DOT, bringing down the initial costs of using UTW. It’s expected that the affordability of this approach will become increasingly evident as the DOT considers lifecycle costs in the future – including maintenance and reconstruction costs.

An Unexpected Break

There was also a completely unplanned test that the new Ultra-Thin Whitetopping surface passed with flying colors: a sudden water main break below the concrete. Weeks after the demonstration, a gushing water main completely saturated the ground beneath the concrete, raised up the overlay, but didn’t crack a single two-foot cut square – even though the concrete was just two inches thick. “This speaks to the performance of the design and the incorporation of synthetic macro fibers,” said Kirchler.

When the repair team came in to fix the leak, they were so intrigued, they called in other plumbers just to see it with their own eyes. It was a speedy repair with minor saw cutting to access the broken water main, and no damage beyond the hole created to fix the leak.

The Strength Behind the Mix

One of the keys to the success of Ultra-Thin Whitetopping is the use of synthetic macro fibers. Without the strength provided by these fibers, such thin overlays wouldn’t be possible.

“All else being equal, if you don’t do anything else but add synthetic macro fibers to the mix, you’ll increase traffic capacity by about 25 percent,” said Riley. “Most people would say you can’t take concrete, just two to four inches thick, and make it work, but we’ve proven it time and time again.”

The fibers chosen for the Illinois DOT project represent the latest generation of synthetic fibers, synthetic “macro” fibers. Provided by Grace Construction Products, the synthetic macro fiber reinforcement used offered numerous performance advantages.

Like steel fibers, synthetic fibers eliminate the need for welded wire mesh, or light reinforcing bars in concrete slab-on-ground and pavement applications. So the associated problems of placing the wire mesh, holding it at the correct elevation, discontinuing wire at all the control joints, and the added labor required and safety issues of working with sharp wire edges are eliminated.

“Steel fibers can be quite effective, but dispersion and handling can be problems,” Riley said. “The specific gravity of structural fibers is about .92, whereas it’s about 7.8-8 for steel. That translates into weight. So to get the effectiveness of 60 pounds of steel fibers might require only 7 pounds of structural synthetics.” That also translates into more crew members required on the job site, increased trucking costs and more time needed to disperse steel fibers into the mix.

“In my experience there has never been a good way to disperse steel fibers short of spreading them on the aggregate belt — a labor intensive approach,” added Riley. “The fibers we used can be automatically dispersed with blowers into the mix. And we haven’t had the problems of balling with synthetic fibers that frequently occur with steel.” With these synthetic macro fibers, there is no concern for proper placement as they are mixed in and uniformly dispersed in the concrete during the batching process.

If the surface finish is important, as it was for the Illinois DOT parking lot, synthetic macro fibers can also speed the finishing stage. Because synthetic macro fibers tend to be more flexible than steel, a burlap or broom finish can be more easily achieved without the risk of steel fibers catching the broom and pulling up the aggregate, which slows the job and mars the finish.

A Next-Generation Fiber

A high strength, high modulus, three-dimensional reinforcement fiber was selected for its advantages over other fibers in improving the durability, crack control and expected longevity of concrete.

“The performance and strength of the structural fibers were important factors in making the Illinois DOT project a success,” said Mark Kennedy, Grace Construction Products marketing manager. “The length, width, type of fiber and modulus of elasticity all enable the fibers we used to provide performance needed in projects like this. And the unique physical characteristics of this technology allow engineers, owners and contractors to dose the fibers at high rates depending on the performance required for the application – in this case 4 and 7.5 pounds per cubic yard – while still maintaining workability and allowing for easy placement.” Kennedy added that the project proceeded smoothly from producing, to placing, to finishing the concrete.

Laser Technology

Along with the development of synthetic macro fibers, the development of 3-D laser screens for placing large sections of concrete is also a step forward in making Ultra-Thin Whitetopping competitive. After milling and preparation by Illinois DOT personnel, a 3-D laser screed was
Your company’s reputation – and future orders – are depending on your performance today.

Buying only equipment with TMMB rating plates ensures that your equipment will perform up-to-spec time after time.

The manufacturers of the Truck Mixer Manufacturers Bureau guarantee that mixers have specified capacity, accurate water control, precise mixing speed and uniform mixing performance to ensure quality concrete is delivered that way.

In fact, in many states TMMB rated equipment is required on state jobs.

Contact us to learn more about the TMMB advantage.

Beck Industrial
Continental Mfg. Co.
London Machinery
McNeilus Companies
Oshkosh Truck Corp.
Schwing America
Summit Performance Systems
Terex Advance Mixer

Endorsed by and affiliated with:

900 Spring Street • Silver Spring, MD 20910
Tel: 301 / 587 - 1400 • Fax: 301 / 587-1605
www.tmmb.org
used to place an overlay in the parking lot that was from two to four inches thick depending on the underlying pavement thickness after milling and requirements for drains, curb gutters and wheelchair ramps. In addition, full six-inch-depth concrete was placed in a truck lane running along the edge of the parking lot.

“The laser screed lets us place large seamless sections of concrete of up to an acre in size per day,” said Len Swederski of Swederski Contractors in Illinois, the company that placed the concrete. “It just makes placing whitetopping so quick and easy for us. We can place three times the square footage compared to conventional screening equipment.” The laser screed was also used because some of the parking lot had a pitch of only about .05 percent – making the accuracy of the laser technology vital to avoid potential “bird baths.”

With a laser screed, no forms or screed rails are required for determining the surface dimensions. The screed is driven off survey equipment connected by radio to a computer on board the laser screed. After creating a three-dimensional image of the surface, a computer directs the movement of the laser screed.

“We pre-program all the profiles of the parking lot surface into the computer, plug it into the laser screed and go,” said Swederski. “The technology has really matured in the last several years, enabling us to work much more efficiently.”

Riley agrees. “Many of the attendees at the parking lot demonstration had never seen a laser screed operation,” he said. “No one could believe how fast and efficient Len and his crew were. They placed a large parking lot in a matter of hours.”

**A Cutting Operation**

To help support heavy loads and reduce cracking, in addition to the synthetic macro fibers, the parking lot included control joints. The two-inch-thick pavement was cut in two-foot grids, while the four-inch pavement was cut into four-foot grids. Spacing was kept short enough so that curling and warping stresses don’t build up. In addition, the joint spacing was close enough so that only one of a truck’s dual tandem axles could sit on a given panel at one time, decreasing the potential load and stress on each panel.

Also behind the efficiency of the Ultra-Thin Whitetopping operation is the development of high-speed early entry saws. The Illinois DOT parking lot needed to be cut within 6-12 hours of placement and the contractor felt that conventional wet saws would not have allowed enough time to cut the concrete without increasing the risk of shrinkage cracks.

“We used early entry saws, which let us get in there sooner when the concrete was less cured, so we could beat the initial tension that starts setting in the concrete and we could keep up with the speed of the placement operation,” said Swederski. “If a crew is placing an acre of concrete a day, you need to cut an acre of concrete a night, and the sooner you get that done, the sooner you can get your crew home so they’re fresher the next day to start all over again.”

In addition to keeping the job on schedule, the high-speed early entry saws are qui-
Thin Whitetopping and its added uses brings other advantages to light.
For example, concrete produces a lighter reflective surface on the pavement that requires about 35 percent less lighting than asphalt — a big energy saver. Studies have also shown that motorists prefer whitetopped over blacktopped parking lots. Swederski cites one study that monitored the traffic flow of two nearly identical lots across the street from one another. After whitetopping one of them, traffic increased as drivers chose the lighter, brighter lot at night.

The “heat island effect” is also a consideration as surfaces such as roads, buildings and other structures absorb — rather than reflect — the sun’s heat causing surface temperatures and overall ambient temperatures to rise. Aerial studies of the heat difference between asphalt and concrete show the concrete surfaces to be significantly cooler than asphalt. When considering the environment created by a large mall parking lot or broader environmental considerations, including impacts on meteorology and air quality being studied by the U.S. Climate Change Technology Program, the advantages of whitetopping solutions become even more evident.

A New Opportunity

The new Ultra-Thin Whitetopping design specification in Illinois will allow concrete to be a very competitive choice in the pavement overlay market. And the industry has a powerful new promotional tool and parking lot that is driving business — the one that DOT officials are driving on every day.

“When the industry gets together, things can get accomplished very quickly,” said the Illinois DOT’s Mel Kirchler. “The cooperation from the industry was unbelievable and the results were outstanding.”

With a concrete technical working group involved with material engineers throughout the state and a new Ultra-Thin Whitetopping specification, the Illinois DOT is constantly looking at ways to make its budgets go further. And with the success of the demonstration project, several new Ultra-Thin Whitetopping projects are already scheduled for the coming year.

What worked well in Illinois can certainly work well elsewhere. It’s an opportunity waiting for those who take it.

Compiled by Alice Poltorick, marketing communications manager worldwide for Grace Construction Products’ Specialty Construction Chemicals business. Alice has an MBA from Boston College and completed graduate work in communications at Boston University. She can be reached at the company’s Cambridge, MA headquarters at: Alice.M.Poltorick@grace.com.
Even if you need an admixture that helps your mix set slowly, Steve works fast to get the job done.

Your concrete mix may need to set slowly. Or set quickly. Or maybe you need to increase workability, or to enhance durability — or all of the above. Whatever your needs, Sika experts like Steve are constantly working to find the perfect admixture for each customer. Throughout his 21-year career (all of it with Sika), Steve has made customers his top priority. So when a customer needs his expertise or to place an order as soon as possible, Steve gets the job done. That’s the way all of us at Sika work all of the time. Find out for yourself by contacting us today.

Visit us on the Web at www.sikaconstruction.com or call 1-800-933-SIKA (7452).

Steve Allender
District Mgr.,
Columbus, OH

See us at the CONEXPO 2005 — Booth S-9736!

©2005 Sika Corporation. All rights reserved.
Now in its 10th year, the National Ready Mixed Concrete Association’s “Commitment to Environmental Excellence” Awards recognize companies that have not only met but also surpassed governmental compliance measures and demonstrated a commitment to environmental excellence through plant and staff investment.

This year, NRMCA will recognize CEMEX’s Katy and Cutten Road plants in Texas with three Environmental Excellence Awards for their contributions to “protecting the environment and maintaining sound management practice in their operations.” The Katy and Cutten Road plants were judged on their compliance history, site aesthetics, written plant procedures, training and employee involvement, water and solid waste management, air quality management, community relations, operating challenges, overall management commitment and environmental delivery awareness.

“Clean air, clean water and sound environmental management practices are fundamentals to our success as a company and as an industry,” said Gilberto Perez, president of CEMEX. “We are committed to being proactive with environmental management programs and to working in collaboration with our communities. It is simply the right thing to do and the right way to run our business. Improving our environmental performance not only strengthens our company and our industry, but it also preserves the quality of life for both present and future generations.”

CEMEX’s Cutten Road Plant also received the public image award from the Texas Aggregates and Concrete Association for “The Most Improved Plant” in 2004.

“We are extremely proud of all the employees associated with these two plant operations because their commitment to team work, environmental stewardship and site beautification has been instrumental in improving our public image as well as the image of the concrete industry,” said Ron Bingham, plant manager for CEMEX’s Katy and Cutten Road facilities. “The support and commitment from our management team to invest in our plants and make them a best place to work has greatly improved employee morale and in turn has resulted in increased productivity and value for our customers and suppliers. We proved that what is good for the environment is also good for business.”
Bingham and the many CEMEX employees who were involved in the improvement efforts at the plants will be the first to admit that things didn’t change over night – it was an effort that was two years in the making.

Over the past two years, a Houston “action team” – including Environmental Manager Janet Kroczuk, Environmental Specialist Ivone Del Rio, Houston Plant Mangers Ron Bingham, John Wilson and Warren Treadway and recently retired Plant Manager David Schram – has been the driving force in developing and implementing these initiatives.

The first step was to determine where the company stood with compliance and its public image, so the team conducted comprehensive assessments at each plant and took photographs to document the existing operations.

The improvements the team implemented at each plant generally represented good industrial practices that were practical, realistic and economically viable. The initiatives included installation of new water management systems that were designed on three basic principles: 1) to minimize the volume of fresh water generated and recycle water where possible; 2) to segregate process water and storm water, where possible; and 3) to eliminate process water discharges through a closed-loop system. Initiatives also included improvements to site aesthetics and best management practices such as good housekeeping, preventive maintenance, spill prevention, employee training and other programs.

Perhaps most importantly, the team created an Environmental Health & Safety (EHS) Center at the Cutten Road Plant to serve as a comprehensive information resource for all pertinent environmental, health and safety issues. These issues include compliance guidelines and reports, relevant data, reporting requirements and emergency information. The EHS Center was designed to educate employees and improve their awareness of environmental regulations as well as their knowledge of emergency response procedures.

Regulatory inspectors also expressed appreciation of CEMEX’s efforts to share information in an easily accessible and well-organized manner. One regulatory inspector stated, “I expect the best when I conduct inspections, but this was the first time I actually got the best.” Some state and local regulators also have begun using the Cutten Road Plant as a model plant for inspector training. Kroczuk notes that the Cutten Road EHS Center will eventually serve as a model for many plants and terminals in CEMEX’s U.S. operations.

“The environmental stewardship and awareness reflected in the physical plant operations is driven by the dedication and ingenuity of our outstanding employees associated with each of these plants at all levels,” said Bill Poole, vice president, Texas Ready Mix and Aggregates for CEMEX. “We are proud of our significant accomplishments, but recognize that there are still things to do and will strive to continually improve our operations in our quest to be a leader in environmental stewardship.”

In addition to CEMEX’s focus on environmental excellence at its facilities, the company also is improving its mixer truck fleets in Texas in order to address issues involving air quality, customer service and public image. In 2004, CEMEX participated in state and local Emission Reduction Grant programs, which award funds to projects that reduce nitrous oxide (Nox) emissions from mobile sources. This program was initiated by the state and local authorities to help improve the air quality in Texas counties that have been designated as non-attainment areas with air pollution problems under the Federal Clean Air Act. Under this program, CEMEX has replaced more than 76 older mixer trucks with new, cleaner trucks.

CEMEX has taken that step to go beyond compliance and made the move to environmental excellence. The company will be rewarded when it receives its Environmental Excellence Award at the NRMCA convention this March in Las Vegas.
You have major work to do. There's no time for hassles and even less time for wimpy excuses. So we've assembled the mightiest fleet of trucks ever to roar out of a ready-mix yard. They lead our full line of integrated front- and rear-discharge mixers, chassis, batch plants, and the incredible Revolution™ composite mixer drum, all backed by people who know the importance of improving productivity. Plus, we're right where you need us – 20 branch locations, 15 authorized service centers, 24/7 response and a toll-free hotline. Talk to your McNeilus representative about adding new power to your business, or contact us at: 507-374-6321, or www.mcneiluscompanies.com.
The United States government operates more than 500,000 buildings. It will spend $10 billion on building construction in fiscal year 2005 in addition to $50 billion on transportation and homeland security construction and $18 billion on water resources and environmental construction. It is by far the largest building owner in the United States. So when the feds decide to build green, the construction industry has no choice but to follow.

That’s the concept behind the U.S. Environmental Protection Agency’s (EPA) latest efforts to develop a Federal Guide for Green Construction Specs. The purpose of the guide is to help federal building project managers meet various mandates established by laws and executive orders, in addition to EPA and U.S. Department of Energy (DOE) program recommendations that require the federal government to build and operate buildings with less environmental impact.

What makes this initiative especially important to the concrete industry is most federal facilities are concrete intensive—prisons, courthouses, office buildings, mail distribution centers, military facilities, air-
is quickly becoming the standard for green building design and construction. It was developed with industry input by the United States Green Building Systems Council (USGBC), a non-profit organization dedicated to promoting buildings that are environmentally responsible, profitable and healthy places to live and work.

The LEED rating system is credit-based, allowing projects to earn points for environmentally friendly actions taken during the design and construction process. A project requires a minimum of 26 points to be LEED certified. There are advanced levels of certification, including silver, gold and platinum, requiring a minimum of 33, 39 and 52 points, respectively. There are five core credit categories to obtain LEED points: Sustainable Sites worth up to 14 points; Water Efficiency worth up to 5 points; Energy and Atmosphere worth up to 17 points; Materials and Resources worth up to 13 points; and Indoor Environmental Quality worth up to 15 points. There is a sixth category called Innovation and Design Process for an additional 5 points. There are a total of 69 LEED points available.

The LEED point system is not defined in terms of materials or specific systems but describes criteria for obtaining the credits and strategies for achieving them. The Federal Guide for Green Building Specs does address products, materials and systems and how those products affect environmental performance with specific reference to the LEED rating system. If one studies the LEED rating system and the guide spec in detail, it becomes clear that concrete can play a significant role in environmental performance.

For the most part, the guide provides suggestions for meeting requirements of the LEED Green Building Rating System, recognizing the fact that many government agencies and private companies have adopted this measurement tool for their building projects. LEED, which stands for Leadership in Energy and Environmental Design, is quickly becoming the standard for green building design and construction. It was developed with industry input by the United States Green Building Systems Council (USGBC), a non-profit organization dedicated to promoting buildings that are environmentally responsible, profitable and healthy places to live and work.

The LEED rating system is credit-based, allowing projects to earn points for environmentally friendly actions taken during the design and construction process. A project requires a minimum of 26 points to be LEED certified. There are advanced levels of certification, including silver, gold and platinum, requiring a minimum of 33, 39 and 52 points, respectively. There are five core credit categories to obtain LEED points: Sustainable Sites worth up to 14 points; Water Efficiency worth up to 5 points; Energy and Atmosphere worth up to 17 points; Materials and Resources worth up to 13 points; and Indoor Environmental Quality worth up to 15 points. There is a sixth category called Innovation and Design Process for an additional 5 points. There are a total of 69 LEED points available.

The LEED point system is not defined in terms of materials or specific systems but describes criteria for obtaining the credits and strategies for achieving them. The Federal Guide for Green Building Specs does address products, materials and systems and how those products affect environmental performance with specific reference to the LEED rating system. If one studies the LEED rating system and the guide spec in detail, it becomes clear that concrete can play a significant role in environmental performance.

The LEED rating system is credit-based, allowing projects to earn points for environmentally friendly actions taken during the design and construction process. A project requires a minimum of 26 points to be LEED certified. There are advanced levels of certification, including silver, gold and platinum, requiring a minimum of 33, 39 and 52 points, respectively. There are five core credit categories to obtain LEED points: Sustainable Sites worth up to 14 points; Water Efficiency worth up to 5 points; Energy and Atmosphere worth up to 17 points; Materials and Resources worth up to 13 points; and Indoor Environmental Quality worth up to 15 points. There is a sixth category called Innovation and Design Process for an additional 5 points. There are a total of 69 LEED points available.

The LEED point system is not defined in terms of materials or specific systems but describes criteria for obtaining the credits and strategies for achieving them. The Federal Guide for Green Building Specs does address products, materials and systems and how those products affect environmental performance with specific reference to the LEED rating system. If one studies the LEED rating system and the guide spec in detail, it becomes clear that concrete can play a significant role in environmental performance.

The LEED rating system is credit-based, allowing projects to earn points for environmentally friendly actions taken during the design and construction process. A project requires a minimum of 26 points to be LEED certified. There are advanced levels of certification, including silver, gold and platinum, requiring a minimum of 33, 39 and 52 points, respectively. There are five core credit categories to obtain LEED points: Sustainable Sites worth up to 14 points; Water Efficiency worth up to 5 points; Energy and Atmosphere worth up to 17 points; Materials and Resources worth up to 13 points; and Indoor Environmental Quality worth up to 15 points. There is a sixth category called Innovation and Design Process for an additional 5 points. There are a total of 69 LEED points available.

The LEED point system is not defined in terms of materials or specific systems but describes criteria for obtaining the credits and strategies for achieving them. The Federal Guide for Green Building Specs does address products, materials and systems and how those products affect environmental performance with specific reference to the LEED rating system. If one studies the LEED rating system and the guide spec in detail, it becomes clear that concrete can play a significant role in environmental performance.

For the most part, the guide provides suggestions for meeting requirements of the LEED Green Building Rating System, recognizing the fact that many government agencies and private companies have adopted this measurement tool for their building projects. LEED, which stands for Leadership in Energy and Environmental Design, is quickly becoming the standard for green building design and construction. It was developed with industry input by the United States Green Building Systems Council (USGBC), a non-profit organization dedicated to promoting buildings that are environmentally responsible, profitable and healthy places to live and work.

The LEED point system is not defined in terms of materials or specific systems but describes criteria for obtaining the credits and strategies for achieving them. The Federal Guide for Green Building Specs does address products, materials and systems and how those products affect environmental performance with specific reference to the LEED rating system. If one studies the LEED rating system and the guide spec in detail, it becomes clear that concrete can play a significant role in environmental performance.

For the most part, the guide provides suggestions for meeting requirements of the LEED Green Building Rating System, recognizing the fact that many government agencies and private companies have adopted this measurement tool for their building projects. LEED, which stands for Leadership in Energy and Environmental Design, is quickly becoming the standard for green building design and construction. It was developed with industry input by the United States Green Building Systems Council (USGBC), a non-profit organization dedicated to promoting buildings that are environmentally responsible, profitable and healthy places to live and work.

The LEED point system is not defined in terms of materials or specific systems but describes criteria for obtaining the credits and strategies for achieving them. The Federal Guide for Green Building Specs does address products, materials and systems and how those products affect environmental performance with specific reference to the LEED rating system. If one studies the LEED rating system and the guide spec in detail, it becomes clear that concrete can play a significant role in environmental performance.

For the most part, the guide provides suggestions for meeting requirements of the LEED Green Building Rating System, recognizing the fact that many government agencies and private companies have adopted this measurement tool for their building projects. LEED, which stands for Leadership in Energy and Environmental Design, is quickly becoming the standard for green building design and construction. It was developed with industry input by the United States Green Building Systems Council (USGBC), a non-profit organization dedicated to promoting buildings that are environmentally responsible, profitable and healthy places to live and work.

The LEED point system is not defined in terms of materials or specific systems but describes criteria for obtaining the credits and strategies for achieving them. The Federal Guide for Green Building Specs does address products, materials and systems and how those products affect environmental performance with specific reference to the LEED rating system. If one studies the LEED rating system and the guide spec in detail, it becomes clear that concrete can play a significant role in environmental performance.
The concrete industry should consider becoming more familiar with green building by taking NRMCA’s seminar LEED Green Building Rating System and Concrete. The seminar was developed to provide continuing education for architects and engineers but also serves as an excellent introduction to LEED for concrete industry personnel.

Heat island effect. To qualify, vegetated surfaces and/or high-albedo materials are necessary. USGBC identifies high-albedo materials for non-roof surfaces as materials with a solar reflectance of at least 0.3, such as concrete…”

LEED also provides a point for using pavement to reduce stormwater runoff. The guide specs provide the following guidance:

“Resource management: Pervious pavement (also referred to as porous paving and permeable paving) is a porous surface with an underlying stone reservoir to temporarily store surface runoff before it infiltrates into the subsoil. This porous surface replaces traditional pavement, allowing parking lot storm water to infiltrate directly and receive water quality treatment. There are various porous pavement options, including porous asphalt, pervious concrete and grid paver systems.”

In SECTION 03300 – Cast-in-Place Concrete, the guide specs provide information for meeting several LEED credits, including energy efficiency, recycling and using regionally manufactured and harvested materials. For example, one specifier note states:

“Performance: Performance in place is comparable for green methods and standard methods. Concrete construction provides thermal mass and durable construction…”

This refers to high-performance wall systems such as insulating concrete forms, tilt-up concrete and reusable form wall systems that incorporate rigid insulation and the mass of the concrete to provide a superior building envelope. LEED provides 1 point for using 15 percent less energy than minimum code requirements and up to 10 points for using 60 percent less energy than code minimum.

Concrete also contributes to LEED points available for using recycled products. The requirement is to use materials with recycled content such that the sum of the post-consumer recycled content plus one-half of the post-industrial recycled content totals 5 percent for 1 point or 10 percent for 2 points. The calculation is based on value or cost of materials. The value of the recycled content portion of a material is determined by dividing the weight of recycled content in the item by the total weight of all materials in the item, then multiplying the resulting percentage by the total value of the item. Supplementary cementitious materials (SCMs) such as fly ash, slag and silica fume are considered post-industrial recycled content. The guide spec provides the following guidance:

“Coal fly ash is a byproduct of coal burning at electric utility plants. It is called “fly” ash because it is transported from the combustion chamber by exhaust gases. Slag is a byproduct of iron blast furnaces. The hot slag is quenched with water and ground into granules finer than portland cement. The resulting product, called slag cement, can be used as an ingredient in concrete… Air-cooled slag can be used as an aggregate in concrete. Silica fume is very fine pozzolanic material produced by electric arc furnaces as a byproduct of production of elemental silicon or ferro-silicon alloys…”

Concrete contributes to two available LEED points by using regionally manufactured and harvested materials—concrete is made within a 500-mile radius of a building site and most of the materials are also harvested within 500 miles of the site. The guide specs provide the following guidance:

“Specifying local materials can help minimize transportation impacts. Transportation impacts include fossil fuel consumption, air pollution and labor. USGBC-LEED(TM) v2.1 includes credits for materials harvested and manufactured within a 500-mile radius from the project site. Concrete ready mixed plants are so numerous across the U.S. that they are generally within 50 miles (80 km) of most job sites. Supplementary cementitious materials, portland cement and the raw materials for cement are also generally extracted and manufactured within 500 miles (800 km) of a job site.”

The general public had an opportunity to review the Federal Guide for Green Constructions Specs during a public review period that ended January 14. The National Ready Mixed Concrete Association (NRMCA) and other concrete industry allies provided comments on the guide specs. In all likelihood, EPA will revise the guide specs to incorporate some of these comments before being published for use on federal construction projects. To view a copy of the guide specs, visit http://fedgreensspecs.wbdg.org.

The concrete industry should consider becoming more familiar with green building by taking NRMCA’s seminar LEED Green Building Rating System and Concrete. The seminar was developed to provide continuing education for architects and engineers but also serves as an excellent introduction to LEED for concrete industry personnel. Order the seminar for viewing online or on CD-ROM by visiting www.nrmca.org/seminars.

Lionel Lemay is senior director of applied engineering with NRMCA. His primary responsibilities include interfacing with engineers and architects to promote performance-based specifications for concrete. He is a registered professional engineer and structural engineer in Illinois and a LEED Accredited Professional.
Introducing Kaorock™, an engineered metakaolin for concrete:

Get stronger. Quicker.

Test- and field-proven benefits include:

• Significant increases in flexural and compressive strength
• Reduction or elimination of ASR
• Enhanced concrete durability
• Reduced permeability
• Enhanced resistance to chemical attack
• Improved handling — no stickiness
• Improved color matching (non-graying)

Contact us today for more specifics on Kaorock and your concrete applications.

Thiele Kaolin Company • Sandersville, GA • (877) 544-3322 • thielekaolin.com
We began with the concept of a construction site…

Then we revolutionized it.

CEMEX knows construction from the ground up. We know the success of any building project depends on getting quality materials – exactly when and where they’re needed. We also know the power of technology. And we are using it to empower our customers and employees – whether enabling you to order cement or ready mix concrete online, or enabling a concrete technician to customize mix designs for a wide variety of construction projects. Our passion for change – and use of technology to achieve it – continues to transform our company, and provide better service for you, our customer.

To learn more about us, visit www.cemex.com.
You know concrete parking lots are more attractive. You know they provide lower life cycle costs than higher maintenance cost alternatives (which means more money in owners’ pockets). You know they provide higher levels of curb appeal. But did you know concrete parking areas are a much greener alternative than the black stuff? This article is going to outline some of the many ways concrete parking areas are GREEN.

Sustainable building and LEED (Leadership in Energy and Environmental Design) are hot topics today among owners, engineers, architects and everyone else involved in creating our built environment. A number of cities and municipalities have taken active positions requiring that buildings be built under the LEED rating system. The sustainability trend will continue to grow and encompass an ever-growing percentage of the new structures being designed and built. Concrete, which has a strong history of providing environmental benefits, doesn’t always get recognized for its valuable place as a tool in sustainable design.

Parking areas are one place where concrete is quickly being recognized for its tremendous environmental benefits. Concrete parking areas provide sustainable attributes like:

- Reduced energy demand for lighting
- Reduction in energies required for maintenance and repair
- Reduced heat island effect
- Reduced cooling loads on nearby structures
- Can contain recycled material
- Concrete is manufactured locally
- Concrete doesn’t waste packaging materials

Let’s take a look at those attributes.

The ability to reduce the energy demand needed to light outdoor areas is simple physics that is often overlooked. When you think about it, the light colored surface of a concrete parking area reflecting more light than its black-colored alternative is common sense. In 1986, R. E. Stark of the Portland Cement Association did a study, “Road Surface’s Reflectance Influences Lighting Design,” which quantified the dramatic difference in the two pavement types as varying between 33- and 50-percent reflectance. This means you may be able to eliminate three out of 10 light fixtures in a parking lot and have the same levels of lighting. It also means you don’t consume the electricity for the three lights or replace the bulbs in them for the life of the parking area!

When you build a concrete parking area, the typical maintenance required is sealing of joints every few years. While most people recognize the money saved by not having to seal, reseal, re-stripe or add additional top coats on asphalt, there are other environmental benefits. All the mechanical equipment used in doing the maintenance work on the asphalt is using energy. The energy to make the products being used, the energy to distribute them, the energy to lay the asphalt and the energy to refine the asphalt all have environmental impact. All this energy is not consumed when you use concrete.

The heat island effect is a dramatic con-
sequence of urban sprawl. It has been studied by NASA. Its website, www.nasa.gov, has numerous articles on the amount of heat being created by growth. We cannot expect growth to stop so the question becomes what can we do about it? NASA mentions using light-colored roads and roofs as one of the significant ways to help mitigate the situation. The MIT Technology Review states, “Blacktopping should be discontinued…” Georgia Tech’s College of Architecture newsletter writes, “While using lighter roofing materials can provide some impact, replacing the dark pavement represents the single largest market opportunity to address the urban heat island effect.” These are pretty compelling sources of the same point.

There is another impact that is secondary to the heat island effect. If the pavement and air around a building are warmer in the summer because of the reflectance, then the cooling load the HVAC system has to offset is logically higher. Those extra degrees of temperature amount to a significant amount of energy (and money) over the life of a building. Once again we see a concrete advantage.

Another green feature of concrete used in parking areas is that it can contain a number of recycled materials. Fly ash, blast furnace slag and silica fume are all byproducts of other industries that can enhance the properties of concrete when used in appropriate amounts. We also see aggregates and water being recycled in ever-increasing amounts during the production of concrete. These products benefit our landfill space and our environment.

An often-overlooked fact in the use of concrete is that it is generally produced locally. Even if you choose to ignore the positive local economic benefits, you have to consider the ecological ones. Transportation distances being reduced means less trucking and resultant air pollution. This fact is important enough for the U.S. Green Building Council to recognize a point for it in its LEED certification program.

Another often-overlooked benefit in using concrete is that you don’t send a lot of packing materials to the landfill. Most products used in construction today arrive on pallets, in boxes, shrink wrapped, tied, taped and sealed together. All of those packing materials either end up in a landfill or buried on the site or burned. With concrete, the product arrives in a ready mixed truck, which serves as the packaging material, is unloaded and the truck returns to carry more concrete. It is a simple benefit that is rarely recognized.

Concrete parking areas not only provide life cycle cost benefits to owners versus competing materials, they also provide real environmental benefits that are rarely recognized. Unfortunately, we don’t always get this message in front of the people who are making decisions on what kind of pavements to use in parking areas. That is changing. As more and more people hear the message the word continues to spread. Concrete has a large role to play in future discussions on sustainability. Its performance in the past assures its place in the future.

LEED is a registered trademark of the U.S. Green Building Council, all rights reserved. For more information, contact Vance Pool via email at vpool@nrmca.org.
Alkali Silica Reactions

By Karthik Obla, Ph.D., P.E.
Director of Research and Materials Engineering, NRMCA

Alkali silica reaction (ASR) is a concrete durability problem whereby certain forms of silica in aggregates react in high alkaline pore solutions in concrete to form a reaction product that expands in the presence of moisture and results in deleterious cracking of concrete. Soluble alkali salts, typically sodium and potassium, exist in concrete ingredient materials, primarily from the portland cement. It is important to note that the problem occurs only when the concrete element is exposed to a source of moisture. ASR has gained more prominence in the last 10 to 20 years as visible evidence of cracked structures emerged and due to changing characteristics of concrete ingredient materials. In most cases, the use of supplementary cementitious materials such as fly ash or slag and lithium-based chemical admixtures have been effective means of controlling the deleterious expansions. Less practical solutions often stated are to use a non-reactive aggregate and/or a low alkali cement as these may not be economically justified in certain regions.

Significant research and efforts have gone toward establishing tests and criteria that would qualify a certain combination of concrete materials for a reduced potential for deleterious expansions due to ASR. Significant research and efforts have gone toward establishing tests and criteria that would qualify a certain combination of concrete materials for a reduced potential for deleterious expansions due to ASR. Two very popular tests to evaluate the potential reactivity of aggregates are the mortar bar test (ASTM C 1260) and concrete prism test (ASTM C 1293). The mortar bar test takes only 16 days whereas the concrete prism test takes one year and hence many engineering agencies such as state DOTs invoke the mortar bar test in specifications as a means to qualify aggregates for their alkali silica reactivity. The problem with this scenario is that many studies, including one conducted by NRMCA, have found that more than 75 percent of the existing aggregate sources fail the mortar bar test. The concrete prism test is considered to be a better test that correlates with the field performance of an aggregate in concrete. However, it is not known exactly what percentage of the aggregate sources in the U.S. will fail that test. If it is assumed that 50 percent of all aggregate sources fail the concrete prism test, the reality is that we do not see this frequency of concrete failures due to ASR in existing structures. Does this mean that the concrete prism test is also not reliable? This question was posed to an expert in ASR and concrete durability. He first stated that no one knows exactly what percentage of all aggregate sources fail the concrete prism test. He was convinced that an aggregate that failed the concrete prism test will fail in the field (without using mitigative measures) provided there is more than 6 lbs/yd³ of alkalis present in the system.

Designed to obtain reliable results in a reasonable time frame, the concrete prism test exposes concrete test specimens (3 x 3 x 10 inch prisms) to a severe set of exposure

<table>
<thead>
<tr>
<th>Reactivity Level</th>
<th>Aggregate Expansion, C 1293, 1-year %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Equal to or greater than</td>
</tr>
<tr>
<td>Very Highly Reactive (VHR)</td>
<td>0.20</td>
</tr>
<tr>
<td>Highly Reactive (HR)</td>
<td>0.12</td>
</tr>
<tr>
<td>Moderately Reactive (MR)</td>
<td>0.04</td>
</tr>
</tbody>
</table>
conditions. The concrete mixture contains 8.85 lbs/yd³ of alkali (1.25 percent alkali by mass of cement and 708 lbs/yd³ of portland cement) and the test specimens are placed in an environment at a high temperature (80°F) and relative humidity (~100%). Based on controlled studies correlating concrete prism test results to larger block specimens placed in the field, the general observation is that field specimens will see deleterious expansive cracking with reactive aggregates when the alkali content of the concrete is greater than 6 lbs/yd³. Based on this, specifications in Canada and Europe have adopted limits such as 5 lbs/yd³ or lower on the total alkali content in concrete.

This brings up the question as to whether this level of protection is necessary regardless of the degree of reactivity of the aggregates. For instance, will certain aggregate sources in the U.S. that are highly reactive be benign with a concrete alkali level at 5 lbs/yd³? Alternatively, is this level of mitigation necessary for aggregates that barely exceed the expansion limit of the ASTM C 1293 test?

This brings us to the issue of classification of aggregates and establishing levels of prevention based on the degree of reactivity. The greatest mitigation measures can be adopted for the highly reactive aggregates while lesser mitigation measures are more appropriate for moderately reactive aggregates. This will improve the current situation where all aggregates that fail the C 1293 test are treated with the greatest mitigation measures that could result in other challenges.

**Redilink**, the fault-tolerant system from Europe that has the backing of major concrete companies.

- Over 400 installed systems, your performance guarantee.
- Suitable for all sizes of operation, any number of plants and trucks.
- Dispatching based on best service to customer.
- Dynamic plant loading eliminates delayed deliveries.
- Charges for all the little extras you missed out on before.
- Instant credit hold to limit losses.
- Fine-tunes mix designs to give best quality product.
- Records all manual operations, even when computer disabled.

Order entry and scheduling.
Dispatching and ticketing.
Delivery scheduling.
Truck fleet management.
Invoicing, link to accounting.
Customizable delivery tickets and reports.
Inventory control.
Aggregate gradation analysis.
Mix design formulation.
Quality control test recording.
Batching controls.
Microwave moisture measurement.
Company-wide silo inventory systems.
Twin shaft mixers.

440 – 19th Ave. Lachine, QC Canada H8S 3S2
102A West Service Road, Suite 128, Champlain, NY 12919

www.scaletron.com • scaletron@scaletron.com • 1 800 632 7083 • 514 634 7083
such as prolonged setting time in cold weather or a slower rate of strength gain. This puts undue restrictions on the concrete producer – for example he may not be able to use high-lime fly ash available locally or a low alkali cement that might provide adequate mitigation for the aggregate in question; or he may have to obtain an alternative ingredient material from great distances and arrange for use with separate silos to supply certain projects. It is clearly true that undue restriction resulting from very conservative concrete specifications increases the cost of concrete construction and renders it less competitive as a construction material. This should be a cause of concern for every one involved. It is an even bigger concern if aggregates are classified as reactive purely based on the C 1260 mortar bar test that has shown to cause a high percentage of “failing” results for aggregates that have a long satisfactory service record.

The ASTM technical subcommittee C 09.26 on chemical reactions is in the process of developing standards that will classify the aggregates based on the expansions measured by ASTM C 1293. See chart on page 45.

Once the subcommittee achieves consensus on this classification, they will propose appropriate methods of mitigation based on the level of aggregate reactivity. The recently approved Canadian Standards Association CSA A23.1 and A23.2 have established measures of prevention for ASR in field concrete based on the degree of reactivity of the aggregate and the level of risk and intended service life of the concrete element. The options are rather extensive to discuss in this article but they include limiting the alkali content in concrete, using prescribed levels of supplementary cementitious materials or qualifying acceptable combinations of materials by performance tests like the mortar bar test and the concrete prism test taken out to two years. This is most likely the model that will be followed by ASTM.

ASTM has standardized a modification of the mortar bar test for evaluating the effectiveness of cementitious material combinations with specific aggregates. ASTM C 1567, Test Method for Determining the Potential Alkali-Silica Reactivity of Combinations of Cementitious Materials and Aggregate (Accelerated Mortar-Bar Method), provides a means to obtain a quick answer regarding the prevention level of fly ash or slag to be used with specific aggregates. It has been adopted by some specifying agencies such as the Texas DOT and other owners of commercial structures.

It is this author’s opinion that if the potential for deleterious expansion in field concrete is tied to the alkali level in the concrete, then there should be a means of classifying the reactivity of an aggregate by modifying the concrete prism test to different levels of alkali content, sufficiently high enough to accelerate reactions and simulate the anticipated alkali levels in field concrete. This would be a more science-based approach with the disadvantage of requiring more long-term testing but it may be well worth the effort if it ensures that the specifications are not so conservative as to impact the competitiveness of concrete as a construction material.

For more information, contact Karthik Obla at 240/485-1163 or via email at kobla@nrmca.org.
When the weather gives you the green light, your trucks have to be ready to go. No other truck pours on the dependability like Sterling®. Built for heavy duty all day, Sterling trucks feature an extremely durable high-strength frame and suspension. Our aluminum cab option maximizes your payload. And superb maneuverability and visibility make handling a dream. That’s why you see Sterling wherever they’re calling for concrete. Today. See your local Sterling work truck expert. Or visit www.sterlingtrucks.com.

Call 1.800.STL-HELP for your local Sterling work truck expert.

ST/HC-A10. Specifications are subject to change without notice. Sterling Trucks is registered to ISO 9001. ©2003, Freightliner LLC. All rights reserved. Sterling Trucks is a member of the Freightliner Group. Freightliner LLC is a DaimlerChrysler Company.
For Franklin, OH-based Moraine Materials, getting bigger wasn’t a choice, it was a necessity. The greater Cincinnati and northern Kentucky metropolitan region had more than 30 ready mixed companies in the mid to late 1990s, with competitors engaging in rampant price cutting to retain business. Long a haven for small operators who relied on various commercial and residential niches to stay in business, this Ohio area had also seen the entry of some large, national competitors in recent years.

The writing was on the wall, reported Moraine’s Operations and Information Technology Manager Jack Delperdang. In order to survive and even thrive, senior company executives knew they had to become a larger, stronger producer in order to face the increasingly strong competition. And they knew the latest available technology would have to play a key role in increasing profits and improving productivity in a new, larger Moraine Materials.

“The Cincinnati area had the lowest selling price (of a cubic yard of concrete) in the U.S.,” said Delperdang, recalling the scenario of just a few years ago. “There were 31 ready mixed companies in the market. Too much competition.”

First came the decision to grow: The 70-year-old Moraine has gone from a 90- to a 150+-truck operation in the past few years,
fueled by the acquisition of LN Concrete of Erlanger, KY; Turnbull Concrete of Cincinnati and, most recently, a smaller local outfit, Green’s of greater Cincinnati. The corporate decision to start buying or be bought has resulted in a Moraine Materials with a significantly expanded mixer truck fleet, more than 260 employees and 16 plants. Its service area now reaches across three states: Ohio, Kentucky and southeastern Indiana.

Delperdang reports that the acquisitions and an accompanying management restructuring have played a role in Moraine’s 33-percent revenue increase from 2003 to last year.

All the acquisitions and subsequent growth then faced Delperdang and his colleagues with how to use the technological tools available to ensure a smooth and profitable operation as possible while converting some of the industry’s most skeptical and ornery employees — mixer drivers — to a new way of business.

The technology Moraine selected and now being tested on the Green’s trucks is a digital ticketing system that he and an outside vendor have been working on for the past three years. Called Digitic, it’s described as “the ultimate wireless ticketing solution” by its creator, Paradyme Technologies. For his part, Delperdang describes the system as the first step in what will become a total quality control program for Moraine. “It’s much, much more than just a ticketing device,” he emphasized, with its eventual use as a tracking device from creation of the concrete batch itself to its discharge at a jobsite.

He said the Digitic system has many features Moraine found appealing, including fast electronic digital ticketing to each truck, electronic signature and name verification captured on the job, accurate vehicle status without GPS (it’s WI-FI based) and mandatory ticket information completion by each driver.

The last point means that Moraine’s drivers must complete each ticket in full or it won’t be accepted on the company’s server. Drivers can also simply record a voice note into the system, Delperdang added. And once the ticket has arrived into Moraine’s main server, customers will eventually be able to select it from the company website.

He admitted that the company has “stirred up the industry” with the new system, but said the vast majority of drivers have come to realize that their individual onboard computers make them more efficient and greatly reduces their difficulties in finding a jobsite because it automatically warns them when they’re more than a set distance from the straight line that’s between the plant and the jobsite.

The cost savings are significant, including no monthly wireless networking or product maintenance fees and a greatly reduced need for paper tickets. Delperdang expects the return on the initial investment to outfit the Green’s mixer trucks to be from three to six months. A breakdown of tangible cost savings based on that time frame comes to $8,252 per truck, he said, assuming 220 working days, 6,000 cubic yards at 7.7 average load size per year. Intangible cost savings for Moraine includes improved customer service, accurate and detailed information on delivery and more efficient drivers and batch personnel.
WE PROVIDE GLOBAL SERVICE WITH LOCAL “KNOW-HOW” AND ENTHUSIASM

OUR COMMITMENT IS TO PROVIDE OUR SERVICES EVERYWHERE, EVERYDAY, ON TIME.

CBMW INNOVATION WORLDWIDE
Get to Know the New 109th Congress: A Guide to Freshmen Members

The new 109th Congress is in full swing! Congressional lawmakers have already begun considering legislation crucial to the ready mixed concrete industry. Now is the perfect time for you to get to know those fresh faces roaming the halls of Congress. Below is a brief introduction to the newly elected members of Congress, listed in state and district order, and the experience they bring with them. Please take the time to meet with your members of Congress, particularly the newest members, so that you may not only introduce them to you, your company and the ready mixed concrete industry, but so that you can establish long-lasting relationships.

Senate

Sen. Ken Salazar (D-CO): A lawyer, farmer, rancher and Dairy Queen franchise owner, Sen. Salazar served as attorney general in CO before pursuing this open Senate seat.

Sen. Mel Martinez (R-FL): President Bush personally asked Sen. Martinez, a lawyer, to pursue this open Senate seat to increase the chances of taking it back from the Democrats. Sen. Martinez had served President Bush as Secretary of Housing and Urban Development prior to his election.

Sen. Johnny Isakson (R-GA): Sen. Isakson had served as a U.S. House member for three terms before winning this open Senate seat. He had previously served in both the
GA state House and state Senate and as chair of the GA Board of Education.

Sen. Barak Obama (D-IL): This young attorney handily won the open Senate seat. Sen. Obama, considered a rising star in the Democratic Party, had previously served in the IL state Senate.

Sen. David Vitter (R-LA): Sen. Vitter is the first Republican to represent LA in the Senate since Reconstruction. Prior to his election to the Senate, this attorney served three terms in the U.S. House and seven and a half years in the LA state House.

Sen. Richard Burr (R-NC): This businessman-turned-legislator served five terms in the U.S. House before winning the open Senate seat.

Sen. Tom Coburn (R-OK): Sen. Coburn is an obstetrician and previously served three terms as a U.S. House member. He had term-limited himself for his tenure in the U.S. House.

Sen. Jim DeMint (R-SC): After serving three terms in the U.S. House, this former marketing firm owner won a highly contested open Senate seat.

Sen. John Thune (R-SD): After an unsuccessful Senate bid in 2002, Sen. Thune is now considered a giant killer, having defeated then-Senate Minority Leader Tom Daschle (D). Sen. Thune had previously served three terms in the U.S. House.

House of Representatives

Rep. Dan Lungren (R-3-CA): Rep. Lungren, a lawyer, previously served five terms in the U.S. House and had a stint as the CA attorney general.

Rep. Jim Costa (D-20-CA): Rep. Costa was a farmer before being elected to the CA state Legislature, where he served for 12 years before his election to the U.S. House.

Rep. John Salazar (D-3-CO): Rep. Salazar, a potato-seed farmer and former CO state Representative, is the brother of Sen. Ken Salazar (D), who was elected to the Senate in November 2004.


Rep. Debbie Wasserman Schultz (D-20-FL): Rep. Schultz previously served as both a FL state Representative and Senator. When she was 26, she was the youngest woman ever elected to the FL Legislature.

Rep. Cynthia McKinney (D-4-GA): Although the five-term legislator was unseated in a Democratic primary in 2002, Rep. McKinney came back to reclaim her old seat after her ouster left to run for Senate.

Rep. Tom Price (R-5-GA): Rep. Price, an orthopedic surgeon, served in the GA state Senate as both Minority Whip and then as Majority Leader.

Rep. Lynn Westmoreland (R-8-GA): As a construction company owner, Rep. Westmoreland possesses a solid understanding of the issues facing ready mixed concrete company owners. He also served in the GA state Legislature.

Rep. John Barrow (D-12-GA): One of seven candidates to defeat a sitting U.S. House member, Rep. Barrow, an attorney, previously served as the Athens-Clarke county commissioner.


Rep. Mike Sodrel (R-9-IN): One of seven freshmen to defeat an incumbent, Rep. Sodrel's second bid for this House seat was the charm. He is the owner of three transportation companies.

Rep. Geoff Davis (R-4-KY): Rep. Davis has considerable experiences from his years in the Army and is the owner of a manufacturing and technology integration consulting firm.

Rep. Bobby Jindal (R-1-LA): This Rhodes Scholar and former consultant has accomplished much in his 33 years, including having served as an assistant secretary of Health and Human Services.


Rep. Joe Schwarz (R-7-MI): Rep. Schwarz brings a wealth of varied experience with him to Congress. He has been a Naval officer, a covert CIA officer, a surgeon, a city commissioner, a mayor and also served 16 years in the MI state Senate.

Rep. Russ Carnahan (D-3-MO): With a well known political pedigree, Rep. Carnahan, son of the late Gov. Mel Carnahan (D) and former Sen. Jean Carnahan (D), easily won this open seat. Prior to his election, he served in the MO state House and was a practicing attorney.

Rep. Emanuel Cleaver (D-5-MO): Rep. Cleaver served two terms as the first black mayor of Kansas City and is also a Methodist pastor.

Rep. Jeff Fortenberry (R-1-NE): The newest member of the NE delegation, Rep. Fortenberry previously served on the Lincoln City Council and was a sales representative.


Rep. Virginia Foxx (R-5-NC): Rep. Foxx served as a five-term NC state Senator before her election to the U.S. Congress, and also worked previously as a college administrator and professor. She also owns a nursery and landscaping business with her husband.

Rep. Patrick McHenry (R-10-NC): At 29, Rep. McHenry is now the youngest member of Congress. He has served in the NC state House and owns his own real estate business. He also has worked as an aide to Secretary of Labor Elaine Chao.

Rep. Dan Boren (D-2-OK): Despite being only 31, Rep. Boren has a great deal of experience, including serving in the OK state House, working as an aide to a former member of Congress, serving as president and CEO of an educational foundation and as vice president of an energy company.

Rep. Michael Fitzpatrick (R-8-PA): Rep. Fitzpatrick has spent the last decade serving as the Bucks County commissioner and worked as a real estate attorney before then.

to serving as a PA state Senator, Rep. Schwartz was heavily involved in the health community, working with health-related non-profits and facilities and also serving in the Philadelphia Department of Human Services.

Rep. Charlie Dent (R-15-PA): Rep. Dent has spent 14 years in the PA state Legislature (eight in the state House and six in the state Senate). Prior to his election to office, he worked as a sales representative and a development officer for Lehigh University.


Rep. Louie Gohmert (R-1-TX): Rep. Gohmert is another of the seven freshmen to unseat an incumbent. He served as a district judge and as chief justice of the 12th Court of Appeals.

Rep. Ted Poe (R-2-TX): Rep. Poe is yet another judge to be elected to the freshmen class and to defeat an incumbent. Before serving 22 years on the bench, he worked as a district attorney.

Rep. Al Green (D-9-TX): Rep. Green’s experience includes co-founding a law firm, working for the NAACP, working as a law professor and serving 25 years as a justice of the peace.

Rep. Mike McCaul (R-10-TX): This former federal prosecutor went unchallenged in his general election bid after surviving the Republican primary and runoff elections.

Rep. Mike Conaway (R-11-TX): Rep. Conaway, an accountant, brings with him strong ties to President Bush, with whom he partnered in the oil company Bush Exploration.

Rep. Kenny Marchant (R-24-TX): Rep. Marchant has spent much of his career in public service, having been elected as mayor of Carrollton, TX, followed by 17 years of service in the TX state House.

Rep. Henry Cuellar (D-28-TX): Rep. Cuellar unseated a sitting House member in the Democratic primary, setting himself up for an easy general election victory. Prior to his election, he served seven terms in the TX state House and as TX secretary of state.

Rep. Thelma Drake (R-2-VA): This fiscally conservative realtor served in the VA state House before being elected to this open seat.

Rep. Cathy McMorris (R-5-WA): Rep. McMorris became a member of the WA state House at 24 and served there, including serving as Republican leader, until her election to Congress last November.

Rep. Dave Reichert (R-8-WA): Rep. Reichert has a colorful history in law enforcement, including nabbing a serial killer and being wounded in the field several times. Most recently, he served as the King County sheriff.

Rep. Gwen Moore (D-4-WI): Rep. Moore has been involved in Milwaukee community improvement and development programs her entire career. She also has served in both the WI state House and Senate.

For more information on all members of Congress or the status of legislation currently being considered in Congress, please contact NRMCA’s Government Affairs Department at 1-888-846-7622.
Inspired by the Proud American Eagle and Built by Proud American Men

For more information contact your area Stephens Sales Representative or our Sales Office at 800 626 0200. Visit our website at www.stephensmfg.com

Come have a look at our new Eagle Portable Concrete Plant

Stephens MFG.
PO Box 488
Tompkinsville, KY 42167
(270) 487 6774 ph
(270) 487 8368 fax

Proud Member of:

AEM
ASSOCIATION OF EQUIPMENT MANUFACTURERS

National Ready Mixed Concrete Association
CONCRETE LITIGATION

By William J. Ingalsbe
Residential construction defect litigation in California has reached an unprecedented scale. Over the past 10 years, literally hundreds of lawsuits involving thousands of homeowners have been filed in this state, and millions of dollars have been paid out to homeowners in these cases. One plaintiff law firm boasts on its website that it has achieved over $300,000,000 in settlements for its homeowner clients. These lawsuits have spread to other western states such as Nevada and Arizona. California attorneys are opening offices in these states to prosecute and defend resident defect litigation. The construction defect lawsuits also appear to be spreading eastward with states such Texas now experiencing the filing of a number of these cases.

Although these lawsuits always include a multitude of claimed defects in the house, the primary claims involve the concrete slabs and foundations. This is the source of most of the claimed damages in these cases. Everything from leaky windows to misplaced dryer vents are alleged in the lawsuits so that virtually every subcontractor, supplier, design professional, as well as the developer, are drawn into the litigation. However, it is the claim that the concrete slabs and foundations are defective and either must be completely replaced or extensively protected from the environment that drives the claimed damages into the hundreds of thousands of dollars per house.

In some cases, plaintiffs’ attorneys and their experts have claimed that the costs of “fixing” the concrete slabs and foundations exceed $400,000 per house. When these costs are multiplied by the dozens of houses that are typically included in one of these lawsuits (some lawsuits have included hundreds of homes), it is easy to see why this litigation has proliferated.

The concrete litigation had its genesis in Yorba Linda, CA, in 1994. The five homes involved in the initial lawsuit were in a tract of 75 high-end residences that originally sold between $400,000 to $600,000 each. Among other things, the plaintiffs claimed that their concrete slabs and foundations were so defective they needed to be completely replaced at a cost of hundreds of thousands of dollars. Specifically, their claim was that the concrete was “rotting” away as a result of sulfates in the soil.

Apparently, the plaintiffs completely overwhelmed the defendants, who agreed to pay over $600,000 per house in settlement of the case. The plaintiffs recovered hundreds of thousands of dollars of tax-free money and were able to keep their houses with no requirement to spend any of the money on repairs.

This residential construction defect litigation in California has reached an unprecedented scale. Over the past 10 years, literally hundreds of lawsuits involving thousands of homeowners have been filed in this state, and millions of dollars have been paid out to homeowners in these cases. One plaintiff law firm boasts on its website that it has achieved over $300,000,000 in settlements for its homeowner clients. These lawsuits have spread to other western states such as Nevada and Arizona. California attorneys are opening offices in these states to prosecute and defend resident defect litigation. The construction defect lawsuits also appear to be spreading eastward with states such Texas now experiencing the filing of a number of these cases.

Although these lawsuits always include a multitude of claimed defects in the house, the primary claims involve the concrete slabs and foundations. This is the source of most of the claimed damages in these cases. Everything from leaky windows to misplaced dryer vents are alleged in the lawsuits so that virtually every subcontractor, supplier, design professional, as well as the developer, are drawn into the litigation. However, it is the claim that the concrete slabs and foundations are defective and either must be completely replaced or extensively protected from the environment that drives the claimed damages into the hundreds of thousands of dollars per house.

In some cases, plaintiffs’ attorneys and their experts have claimed that the costs of “fixing” the concrete slabs and foundations exceed $400,000 per house. When these costs are multiplied by the dozens of houses that are typically included in one of these lawsuits (some lawsuits have included hundreds of homes), it is easy to see why this litigation has proliferated.

The concrete litigation had its genesis in Yorba Linda, CA, in 1994. The five homes involved in the initial lawsuit were in a tract of 75 high-end residences that originally sold between $400,000 to $600,000 each. Among other things, the plaintiffs claimed that their concrete slabs and foundations were so defective they needed to be completely replaced at a cost of hundreds of thousands of dollars. Specifically, their claim was that the concrete was “rotting” away as a result of sulfates in the soil.

Apparently, the plaintiffs completely overwhelmed the defendants, who agreed to pay over $600,000 per house in settlement of the case. The plaintiffs recovered hundreds of thousands of dollars of tax-free money and were able to keep their houses with no requirement to spend any of the money on repairs.

This residential construction defect litigation in California has reached an unprecedented scale. Over the past 10 years, literally hundreds of lawsuits involving thousands of homeowners have been filed in this state, and millions of dollars have been paid out to homeowners in these cases. One plaintiff law firm boasts on its website that it has achieved over $300,000,000 in settlements for its homeowner clients. These lawsuits have spread to other western states such as Nevada and Arizona. California attorneys are opening offices in these states to prosecute and defend resident defect litigation. The construction defect lawsuits also appear to be spreading eastward with states such Texas now experiencing the filing of a number of these cases.

Although these lawsuits always include a multitude of claimed defects in the house, the primary claims involve the concrete slabs and foundations. This is the source of most of the claimed damages in these cases. Everything from leaky windows to misplaced dryer vents are alleged in the lawsuits so that virtually every subcontractor, supplier, design professional, as well as the developer, are drawn into the litigation. However, it is the claim that the concrete slabs and foundations are defective and either must be completely replaced or extensively protected from the environment that drives the claimed damages into the hundreds of thousands of dollars per house.

In some cases, plaintiffs’ attorneys and their experts have claimed that the costs of “fixing” the concrete slabs and foundations exceed $400,000 per house. When these costs are multiplied by the dozens of houses that are typically included in one of these lawsuits (some lawsuits have included hundreds of homes), it is easy to see why this litigation has proliferated.

The concrete litigation had its genesis in Yorba Linda, CA, in 1994. The five homes involved in the initial lawsuit were in a tract of 75 high-end residences that originally sold between $400,000 to $600,000 each. Among other things, the plaintiffs claimed that their concrete slabs and foundations were so defective they needed to be completely replaced at a cost of hundreds of thousands of dollars. Specifically, their claim was that the concrete was “rotting” away as a result of sulfates in the soil.

Apparently, the plaintiffs completely overwhelmed the defendants, who agreed to pay over $600,000 per house in settlement of the case. The plaintiffs recovered hundreds of thousands of dollars of tax-free money and were able to keep their houses with no requirement to spend any of the money on repairs.

This residential construction defect litigation in California has reached an unprecedented scale. Over the past 10 years, literally hundreds of lawsuits involving thousands of homeowners have been filed in this state, and millions of dollars have been paid out to homeowners in these cases. One plaintiff law firm boasts on its website that it has achieved over $300,000,000 in settlements for its homeowner clients. These lawsuits have spread to other western states such as Nevada and Arizona. California attorneys are opening offices in these states to prosecute and defend resident defect litigation. The construction defect lawsuits also appear to be spreading eastward with states such Texas now experiencing the filing of a number of these cases.

Although these lawsuits always include a multitude of claimed defects in the house, the primary claims involve the concrete slabs and foundations. This is the source of most of the claimed damages in these cases. Everything from leaky windows to misplaced dryer vents are alleged in the lawsuits so that virtually every subcontractor, supplier, design professional, as well as the developer, are drawn into the litigation. However, it is the claim that the concrete slabs and foundations are defective and either must be completely replaced or extensively protected from the environment that drives the claimed damages into the hundreds of thousands of dollars per house.

In some cases, plaintiffs’ attorneys and their experts have claimed that the costs of “fixing” the concrete slabs and foundations exceed $400,000 per house. When these costs are multiplied by the dozens of houses that are typically included in one of these lawsuits (some lawsuits have included hundreds of homes), it is easy to see why this litigation has proliferated.

The concrete litigation had its genesis in Yorba Linda, CA, in 1994. The five homes involved in the initial lawsuit were in a tract of 75 high-end residences that originally sold between $400,000 to $600,000 each. Among other things, the plaintiffs claimed that their concrete slabs and foundations were so defective they needed to be completely replaced at a cost of hundreds of thousands of dollars. Specifically, their claim was that the concrete was “rotting” away as a result of sulfates in the soil.

Apparently, the plaintiffs completely overwhelmed the defendants, who agreed to pay over $600,000 per house in settlement of the case. The plaintiffs recovered hundreds of thousands of dollars of tax-free money and were able to keep their houses with no requirement to spend any of the money on repairs.
extraordinary settlement was reported in the newspapers and this, together with the word-of-mouth that spread through the neighborhood, resulted in a stampede to the courthouse that has been unrelenting to this very day. Ultimately, homeowners of 64 of the 75 houses in the initial tract filed “sulfate” lawsuits. While this first case did not involve the concrete supplier, the subsequent lawsuits did include the concrete ready mixed companies that furnished the concrete for the slabs and foundations.

The general basis for the plaintiffs’ sulfate claims is that the concrete did not meet the requirements of the Uniform Building Code for sulfate-resistant concrete. Prior to 1985 in southern California, part of the investigatory work performed by soils engineers in connection with housing tract development was the testing of the soils for sulfates. If severe levels of sulfates were found in the soils, the soils engineer would recommend in his report the use of Type V cement, a sulfate-resistant cement. This recommendation was adopted by the structural engineer, who invariably included this design parameter with the specification of 2,000 or 2,500 p.s.i. (depending upon whether post-tensioned slabs were used) in the project plans and specifications for the concrete slabs and foundations. The concrete installer then would use the approved plans and specifications as the basis for his order with the concrete supplier, typically ordering from the supplier’s dispatcher a 2,000 pound mix with Type V cement.

In 1985, the Uniform Building Code was changed. A table was added to the code that, among other things, called for the use of relatively low water-to-cement ratio (i.e., 0.45), as well as Type V cement for concrete in contact with soils containing severe levels of sulfates. This new requirement necessitated the use of at least a 4,500 pound mix, rather than 2,000 or 2,500.

Notwithstanding this change in the code, the practice of the design professionals responsible for the design of residential slabs and foundations did not change with respect to the specification of 2,000 p.s.i. concrete (or 2,500 p.s.i. for post-tensioned slabs) for tract housing in southern California. Many industry experts contend the new sulfate table in the code was never intended to apply to the “plain” concrete used in residential slabs and foundations, pointing also to the fact that there were not “sulfate problems” with the slabs and foundations of the thousands of houses constructed in southern California prior to the code change.

Regardless of the reasons for the failure to incorporate the changes in the code, virtually every house constructed in southern California from 1985 to the time when the first sulfate case was filed in Orange County, CA, used a 2,000 or 2,500 concrete mix for the slabs and foundations. Unfortunately, this situation caused what has been described as California’s second gold rush. Any place plaintiffs’ attorneys and their experts were able to find moderate or severe levels of sulfates in the soils in housing tracts constructed after 1985, a complaint was filed on behalf of the homeowners, claiming that the concrete slabs and foundations violated the Uniform Building Code and needed to be removed and replaced or required extensive remedial measures to protect the concrete from the sulfate-bearing soils. As a result, thousands of exploratory holes have been dug in California soils over the last 10 years, looking for sufficient levels of sulfates that would support a claim of defective concrete slabs and foundations. Unfortunately, a significant portion of the soils, particularly in southern California, contain moderate to severe levels of sulfates.

Junk Science

To bolster their claims of sulfate attack, plaintiffs’ attorneys have hired experts from the United States and Canada to testify in the cases brought on behalf of their clients. For the most part, these experts are research scientists and university professors, and they bring rather impressive credentials into the courtroom. They also have attempted to introduce the results of sophisticated scientific techniques and methods to prove that the concrete slabs and foundations actually have been damaged by sulfate attack. These techniques and methods have included, for example, the use of scanning electron microscopes equipped with energy dispersive x-ray analyzers to examine samples from the concrete, as well as numerical computer models to predict the remaining service life of the concrete exposed to moderate and severe levels of sulfates.

Attorneys for some ready mixed suppliers have responded to these lawsuits by seeking to exclude this evidence as “junk science.” Under California law, a scientific test or procedure must be generally accepted as reliable by the relevant scientific community before it is allowed to be presented in evidence to the jury. This is the so-called Kelly rule (after a case named Kelly v. Superior Court) and is the same rule that keeps out of the courtroom such evidence as the results of polygraph (lie-detector) tests.

In a number of sulfate cases, judges in southern California have conducted “Kelly hearings” to determine the admissibility of plaintiffs’ scientific evidence. In these hearings, the judge listens to expert testimony from both sides of the issue and then decides whether to admit or deny the admission of the scientific evidence.

This defense measure has proven to be very successful in some cases, particularly where the Kelly hearings have been conducted by experienced defense counsel with competent and knowledgeable expert witnesses. For example, in one sulfate case, attorneys for a concrete supplier brought seven Kelly motions seeking to exclude virtually every piece of scientific evidence the plaintiffs wanted to introduce before the jury. After listening to experts for both sides in Kelly hearings that lasted over a month, the trial judge granted all of the defendant’s motions, throwing out all of the plaintiffs’ scientific evidence.

Other concrete suppliers have not fared as well. In another southern California case, a concrete supplier was held liable for approximately $5,500,000 in a sulfate case because it did not furnish concrete with a low water-to-cement ratio. The supplier was held liable notwithstanding the fact that it furnished the concrete called for in the plans and specifications. In that case, none of the plaintiffs’ scientific evidence (with one exception) was challenged under the Kelly rule. This unchallenged evidence was used by the plaintiffs to convince the court that concrete slabs and foundations were experiencing “submicroscopic damage.” According to the plaintiffs’ experts, this damage was so small it could not be observed under ordinary optical microscopes used by petrographers to diagnose sulfate attack and damage in hardened concrete.

The Economic Loss Rule

In awarding the plaintiffs approximately $5,500,000 against the concrete supplier, the
defendant (who had no contractual relationship with the plaintiff homeowner association), the decision should have been in favor of the supplier even if the court believed that there was “submicroscopic damage” to the concrete caused by sulfate attack.

In reaching its decision, the trial court concluded the economic loss rule was not applicable to the case before it. The concrete supplier appealed the case, and the appellate court sustained the trial court’s decision, holding in a published decision that the existence of “submicroscopic damage” to the concrete was sufficient to create an exception to the economic loss rule.

The concrete supplier appealed the decision to the California Supreme Court, arguing among other things that the exception created by the appellate court would virtually destroy the economic loss rule in California and lead to the ultimate destruction of warranty law in the state.

In making its appeal to the California Supreme Court, the concrete supplier was able to elicit the support of business organizations and groups throughout the country. Over 50 organizations and groups wrote amicus letters to the Court, asking it to hear the supplier’s appeal and advising the Court of the terrible consequences that would result to manufacturing and general businesses throughout California and the nation if the appellate court decision was left standing.

The Court received letters from such diverse groups as the lumber, plastics, chemical, home building, concrete and construction industries, as well as professional organizations such as the American Institute of Architects, the American Concrete Institute and the Consulting Engineers and Land Surveyors of California. The number and diversity of these letters was unprecedented and the Court responded by ordering the appellate decision struck from California’s published decisions. However, for some inexplicable reason, the Court refused to reverse the judgment against the supplier, who was forced to pay the money awarded by the trial. Nevertheless, the removal of the appellate court decision from California’s decisional law was a significant victory for the concrete industry, as well as for all manufacturers doing business within the state.

Unfortunately, this situation caused what has been described as California’s second gold rush.
The Fix-it Law

Long before the California appellate decision that attempted to create an exception to the economic loss rule, California plaintiffs’ attorneys realized the potential threat to their lawsuits if the rule was enforced by the courts in construction defect cases. Therefore, they embarked on a lobbying effort with California’s state legislature to eliminate the economic loss rule in residential construction defect cases. This effort culminated with the passage of Senate Bill 800, which took effect January 1, 2003. This piece of legislation (dubbed many as the “Fix-it Law”) does much more than simply eliminate the economic loss rule in residential construction cases, however.

The Fix-it Law is over 7,000 words in length and establishes a lengthy list of performance standards applicable to residential construction. These performance standards cover everything from the construction of slabs and foundations to the installation of dryer vents in the house. With respect to concrete, the performance standards include the following:

- “Foundation systems and slabs shall not allow water or vapor to enter into the structure so as to cause damage to another building component.” (Calif. Civil Code §896(a)(7).)
- “Foundation systems and slabs shall not allow water or vapor to enter into the structure so as to limit the installation of the type of flooring materials typically used for the particular application.” (Calif. Civil Code §896(a)(8).)
- “Foundations, load bearing components, and slabs shall not contain significant cracks or significant vertical displacement.” (Calif. Civil Code §896(b)(1).)
- “Foundations, load bearing components, and slabs shall not cause the structure, in whole or in part, to be structurally unsafe.” (Calif. Civil Code §896(b)(2).)
- “Foundations, load bearing components, slabs, and underlying soils shall be constructed so as to materially comply with the design criteria set by applicable government building codes, regulations, and ordinances for chemical deterioration or corrosion resistance in effect at the time of the original construction.” (Calif. Civil Code §896(b)(3).)
- “Exterior pathways, driveways, hardscape, sidewalks, and patios installed by the original builder shall not contain cracks that display significant vertical displacement or that are excessive.” (Calif. Civil Code §896(g)(1).)

Under the new legislation, the concrete supplier, as well as the general contractor, subcontractor and design professional, are strictly liable for violation of these standards. The penalty for violating one or more of these standards includes the following:

- The cost of repairing the violation.
- The cost of repairing any damages caused by any effort to repair the violation.
- The cost of repairing and rectifying any damages resulting from the failure of the home to meet the standards.
- The cost of removing and replacing any repair by the builder.
- Relocation and storage expenses.
- Lost business income if the home was used as a principal place of a business licensed to operate from the home.
- Investigative costs for each established violation.
- All other costs recoverable by contract or statute. (See Calif. Civil Code §944.)

In construction defect cases prior to the passage of the Fix-it Law, plaintiffs’ attorneys and their experts claimed that the costs for “repairing” concrete slabs and foundations that permitted the passage of “excessive” amounts of water or water vapor or did not comply with the Uniform Building Code with respect to sulfate protection amounted to hundreds of thousands of dollars per house.

In virtually every case, they claimed the homeowner’s family would have to be relocated for four to six months and the contents of their homes stored for that length of time while the concrete slabs and foundations of their houses were either removed and replaced or isolated from the surrounding soils by drilling holes through their slab and injecting a grout-like material under their slabs and foundations.

There should be little doubt that similar dollar figures will be claimed by plaintiffs’ attorneys and their experts under the Fix-it Law. What will change under the new legislation is the burden of proving the claimed defects in the concrete actually caused the plaintiffs some damage.

In the past, plaintiffs’ attorney hired experts who utilized a large variety of scientific tests and procedures in an attempt to prove the concrete slabs and foundations have actually sustained damage by sulfate attack or the slabs and foundations are too permeable and pass “excessive” amounts of water or water vapor into the dwelling, causing, among other things, the growth of mold and fungus in the interior. The Fix-it Law contains a provision that plaintiffs’ attorneys hope will eliminate any further need to prove these facts.

The new law provides that in order to make a claim for violation of the standards set forth in the statute a homeowner need only demonstrate the home does not meet the applicable standard; no further showing of causation or damages is required to meet the homeowners’ burden of proof regarding a violation of the standard. (See Calif. Civil Code §942.) In other words, the homeowner does not have the burden of proving the claimed violation actually caused any damage! This provision of the Fix-it Law is virtually unprecedented in American jurisprudence. It is a fundamental principle of American law that before a judgment is entered against a defendant, requiring him to pay over money, the plaintiff must prove that he was damaged and the damage was caused by the plaintiff. The Fix-it Law eliminates this fundamental requirement. Now, under the new legislation, the plaintiff only need prove his concrete slab contains a “significant” crack or that it was cast with a 4,000-pound mix rather than a 4,500-pound mix in order to recover all of the “repair” and associated costs specified by the statute.

The elimination of the requirement to prove causation and damages may very well lead to absurd and unjust results. For example, dry shrinkage cracks often develop in residential slabs constructed in California. The customary practice in this state is not to install control joints or any other measure to control random cracking in the concrete since the slab will be covered by some kind of floor covering, thereby eliminating any aesthetic problem created by the cracking. However, in conducting their typical investigation, plaintiffs’ experts routinely pull back the carpeting in plaintiffs’ houses and point to this random cracking as evidence of some kind of defect in the concrete. Regardless of whether or not this is true, under the new law, the mere existence of these cracks by
themselves may entitle the plaintiff to a substantial recovery from the defendants. Even dry shrinkage cracks can entitle the homeowner to a substantial award of money under the new legislation if his attorneys and experts are successful in convincing that the cracks are “significant.”

Under such circumstances, it will be of no use to argue that the shrinkage cracks are not even an aesthetic problem since they have been covered by carpeting since the house was constructed and that the plaintiff has failed to prove that the cracks have caused him any actual damage. The plaintiff’s attorney simply will point to the provision of the statute that eliminates any need for him to prove either causation or damages.

The elimination of the economic loss rule and the requirement for the plaintiff to prove causation and damages are only a few of the things in the Fix-it Law that pose a significant threat to the concrete industry. A number of the so-called performance standards created by the statute are vague and likely to engender more litigation (e.g., concrete shall not contain “significant” cracks).

Proponents of the Fix-it Law, including a large number of developers, claim the legislation will reduce the number of construction defect lawsuits. The new law does include a detailed and somewhat elaborate procedure whereby a homeowner must notify the developer of claimed violations of the performance standards and give the developer an opportunity to repair the violations before bringing a construction defect lawsuit. The specified procedure includes in most situations unrealistic time periods for the developer to act upon the claimed violation and exercise his election to make repairs.

The new law also includes a lengthy list of documents the developer is required to furnish the homeowner within a short period of time. The list includes “all plans, specifications, mass or rough grading plans, final soils reports, Department of Real Estate public reports, and available engineering calculations” pertaining to the homeowner’s residence, as well as documents regarding maintenance recommendations, product warranties, sale, etc., of the residence. Any failure of the developer to comply with any of the specified acts within the time permitted by the statute entitles the homeowner immediately to bring a lawsuit for the claimed violation of the standards.

Arguably, the Fix-it Law may be of some benefit where the alleged violation (defect) is a leaky window or a misplaced dryer vent. Although even items such as these can result in substantial repair costs if they are claimed to be defective throughout a 400-home housing tract, they do not approach the cost to remove and replace the concrete slabs and foundations of 400 houses. Thus, where a developer may be willing to incur the cost of $50 to relocate a dryer vent that a plaintiff’s attorney and his expert claim is misplaced according to the Uniform Building Code, or he even might be willing to spend $10,000 replacing all the windows in a residence to eliminate any contention that they are defective, he is very unlikely to spend $400,000 removing and replacing the slabs and foundations to eliminate the plaintiff’s claim that they contain “significant cracks” or they were cast with 4,000-pound concrete rather than a 4,500-pound mix.

Since it is these types of claims against the concrete that currently drive construction defect litigation, it is highly unlikely that the Fix-it Law will significantly reduce construction defect litigation in California. If anything, the statute is likely to increase the amount of this litigation.

The concept of fix-it laws have spread to other states. While there may be some benefits to such laws, there can be some decidedly negative aspects to these laws, particularly those patterned on California’s Fix-it Law. The concrete industry in particular should carefully monitor proposed legislation before its respective state legislatures and carefully examine any bill dealing with these issues. As the industry is learning in California, it is very difficult, if not impossible, to change this legislation once it is enacted.

Conclusion

Unfortunately, the construction defect litigation that has flooded California in the past 10 years shows no sign of abating. To the contrary, it now has spread to other western states and appears to be moving eastward. The litigation has focused on claims involving the concrete industry, because large dollar claims can be developed if the trier of fact can be convinced there is something wrong with the concrete slabs and foundations. The industry has had some successes in the courtroom, particularly in excluding the “science” that plaintiffs’ attorneys seek to use to prove the concrete has suffered some damage and the applicability of the economic loss rule. To counter these successes, the plaintiffs’ attorneys have lobbied the California Legislature to pass a so-called fix-it law, which, among other things, eliminates the single best defense available to the concrete industry, i.e., the economic loss rule.

One thing is for certain – construction defect litigation that focuses on claimed defects in residential concrete is not going away in the foreseeable future. In fact, it is spreading and will continue to spread. The problem is not insurmountable, but it needs to be recognized and serious efforts and resources must swiftly be devoted to its resolution.

William Ingalsbe is a senior litigator with the Los Angeles law firm of Monteleone & McCrory. He has over 28 years of experience in public and private works construction litigation, both in state and federal courts and before state and commercial arbitrators. For more information, contact Ingalsbe at (714) 565-3170.

The views and opinions expressed are those of the author and do not necessarily reflect the views and opinions of the National Ready Mixed Concrete Association.
When choosing a ready-mix technology solution worthy of your trust, you need to look for three key elements:

**INTELLIGENCE.** A system that delivers accurate, timely information, enabling you to make faster, better decisions.

**INTEGRATION.** A system that truly provides seamless, no-hassle visibility and efficiency across your entire business operations.

**INTEGRITY.** A system that delivers dependability and reliability in both the computer system and the company behind it.

See for yourself why the ready-mix industry is rapidly switching to the proven choice in technology solutions – Integra by Systech.

Why have over 4,000 trucks been switched to Systech solutions in the past year alone?

**INTELLIGENCE.** **INTEGRATION.** **INTEGRITY.**

Wireless communications, non-proprietary components, lower maintenance costs and downtime, while enabling more accurate calibration and operation across the plant.

Simple, efficient order entry and real-time scheduling tools reduce effort, errors and man-hours, while enhancing speed and accuracy across the board.

Proven, intelligent GPS-based system, with fully automatic mapping and status reporting, delivers real, verifiable productivity enhancements at every installation.

Complete back office management suite – from accounts receivable, quotations and bidding, to document imaging and lien management – interfaces to most standard accounting systems.

See us at CONEXPO-CON/AGG®
Booth S-10307.

For a free demo CD, call 630.515.0200 or visit us at:

www.systech-inc.com
Duty to Defend the Ready Mixed Industry

By Robert Sullivan
Director of Government Affairs

The concrete industry has come under assault in recent years by well-heeled members of the plaintiffs bar who have claimed that our industry’s product, a benign synthetic rock, is actually defective and in some cases poses a danger to the public. You no doubt are familiar with some of the more spurious lawsuits involving concrete and sulfate attack, silicosis, mold, etc. These lawsuits have infected the industry in western states but are slowly but surely creeping east, state by state. This litigation threatens to embroil the national ready mixed industry and, if the industry is not prepared to defend itself, it could cost us millions of dollars.

To meet the legal challenges facing the concrete industry, NRMCA has recently established its new Legal Activities Committee (LAC). The principle purpose of the LAC is to provide for the discussion of legal issues and exchange of information concerning litigation faced by the ready mixed industry. The work of the LAC will be guided by a nine-member executive committee, which will act as a manager of information obtained from subcommittees assigned to manage specific areas of litigation, such as sulfate attack or silicosis. Each litigation subcommittee will be chaired by an attorney and all of the subcommittee members will be bound by a Common Interest Agreement. Common Interest Agreements ensure confidential communications and protect attorney work product and attorney client privileges. The subcommittee members will be able to exchange legal briefs and memoranda, discuss litigation strategies and review the common factual, technical and procedural issues that arise in given areas of litigation.

In addition, the LAC recently voted to support the establishment of a National Ready Mixed Concrete Legal Resource Center (LRC). The LRC will be the industry clearinghouse for information concerning legal issues commonly faced by the ready mixed concrete industry. In its early stages the LRC will be run by NRMCA staff. The LRC will be tasked with setting up and maintaining a concrete construction case data bank that will catalogue legal briefs, memoranda, trial court rulings and appellate court case decisions addressing the applicability of key legal theories and defenses. The LRC will also gather news articles, seminar materials, studies and technical publications that help support industry positions. Also, as requested, the LRC will compile information about expert witnesses commonly used in cases brought against ready mixed producers to assist members seeking to hire a well-qualified and experienced expert witness. Thus, the LRC will perform an invaluable service by gathering and distributing reliable legal and technical information, thereby saving companies and their attorneys from having to start from scratch in defending a claim.

As the NRMCA moves to position the ready mixed industry to better defend itself, it will have to proceed with caution. Plaintiffs in product liability cases have increasingly targeted national trade associations representing manufacturers, distributors and retailers of allegedly defective consumer goods. For example, the American Wood Preservers Institute (“AWPI”) has been targeted in products liability actions by plain-
tiffs alleging injuries resulting from contact with chromated copper arsenate ("CCA"), a chemical preservative used to pressure-treat wood. AWPI’s membership includes manufacturers of the preservative CCA and wood treaters in the preserved wood industry. Even though AWPI had no role in the actual manufacture or sale of CCA-treated wood, these plaintiffs alleged that AWPI voluntarily assumed duties to warn consumers of the alleged dangers of CCA-treated wood by actively promoting the treated wood industry’s products and by disseminating general information about the safety of CCA-treated wood.

AWPI’s legal skirmishes typify the battleground of trade association liability that is fought over whether the trade association owes a duty of care to consumers of allegedly defective or dangerous products produced by its members. As a general rule, a trade association that does not manufacture or sell a product does not owe a duty of care to consumers injured by that product, even if the product was produced by the association’s members. However, a growing number of courts applying the so-called “good Samaritan doctrine” have held that trade associations may assume a duty to consumers voluntarily by, for example, promulgating standards or instructions relating to the construction, installation or operation of their members’ products.

Recently, however, in the United States District Court for the Southern District of Florida, Jerry Jacobs, et al. v. Osmose, Inc., et al., Case No. 01-944-CIV-MIDDLE-BROOKS, AWPI was able to have the plaintiff’s negligence-based products liability claims dismissed at the initial pleadings stage. In granting AWPI’s motion to dismiss, United States District Court Judge Donald M. Middlebrooks adopted AWPI’s reasoning nearly verbatim, holding that trade associations like AWPI that do not “[elect] to promulgate safety standards regarding the design, testing, or manufacture of [a product]” cannot voluntarily assume a duty to consumers or end-users by “merely disseminat[ing] information about the safety of [the product].” Accordingly, the court rejected plaintiffs’ allegations that AWPI voluntarily assumed a duty to warn plaintiffs by disseminating general safety information about CCA-treated wood to the public.

NRMCA will keep the Jacobs case and AWPI’s experience in mind as it moves forward. Certainly, the LAC was not set up to represent either the NRMCA or its individual member companies in any legal capacity. Nor will it craft or sanction standard industry defenses to product liability or construction liability claims. However, if properly utilized, both the LAC and the LRC will be information resources that will substantially reduce the cost for NRMCA member companies to defend against legal claims and will assist member companies in obtaining a more favorable outcome. In any event, NRMCA stands ready to utilize all available resources to do its duty to defend the ready mixed industry.

For more information on NRMCA’s Legal Affairs Committee, please contact Robert Sullivan at rsullivan@nrmca.org or 240/485-1148.
Pumping ready mixed concrete at a construction site requires critical planning on the part of those directly and indirectly involved in pumping. This is a case where failing to prepare means preparing to fail. Power lines, assembled pipelines, ground stability, trench locations, blockage removal – all these require operators to develop systematic procedures. Communication with other workers at the site is critical in ensuring that everyone is safe.

The Checklist for Pumping Concrete was developed by National Ready Mixed Concrete Association (NRMCA), American Society of Concrete Contractors (ASCC) and the American Concrete Pumping Association (ACPA). The intent is to identify details of the process of pumping concrete prior to the start of the placement so that all impacted parties are aware of the issues related to the construction specification, equipment and schedules, responsible persons and jobsite safety. The presumption is that on larger projects the concrete construction team has been through a pre-construction conference and has addressed the pertinent items in the NRMCA/ASCC/ACPA Checklist for Concrete Pre-Construction Conference and those items are excluded from the document. This checklist can be included in a broader pre-construction conference agenda.

The checklist is not intended to be all inclusive of the items that need to be considered, and depending on a specific project, many items regarding specification requirements, testing details, construction logistics and jobsite safety may need to be addressed in greater detail than outlined in the document. All the items are critical to the success of the project and must be discussed and agreed upon prior to the placement of concrete. Notification to the owner and his representative is most important.

Copyright © National Ready Mixed Concrete Association American Society of Concrete Contractors and American Concrete Pumping Association

See checklist on page 66.
Checklist for Pumping Ready Mixed Concrete

Project: 
Location: 
Directions: 
(Map on back)

1. Contacts

<table>
<thead>
<tr>
<th>Who</th>
<th>Name</th>
<th>Phone</th>
<th>Mobile</th>
<th>Fax</th>
<th>E-Mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. Contractor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMC Producer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump Contractor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. General Conditions

<table>
<thead>
<tr>
<th>Start time</th>
<th>Pump: am/pm</th>
<th>Concrete: am/pm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placement Location</td>
<td>Slabs</td>
<td>Walls</td>
</tr>
<tr>
<td>Placement Rate, cy/hr.</td>
<td>Volume</td>
<td>cy</td>
</tr>
<tr>
<td>Type of pump</td>
<td>Regular</td>
<td>Z-Boom</td>
</tr>
<tr>
<td>Size of Pump, m</td>
<td>Pipeline dia, in.</td>
<td></td>
</tr>
<tr>
<td>Pumping Distance, ft.</td>
<td>Vertical</td>
<td>Horizontal</td>
</tr>
<tr>
<td>Slump/Air Spec</td>
<td>Point of Discharge</td>
<td>Point of Placement</td>
</tr>
<tr>
<td>Testing</td>
<td>Point of Discharge</td>
<td>Point of Placement</td>
</tr>
<tr>
<td>Priming Agent</td>
<td>Grout</td>
<td>Slick Pack</td>
</tr>
</tbody>
</table>

3. Concrete Mixture

<table>
<thead>
<tr>
<th>Strength, psi</th>
<th>28 days:</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Size of aggregate</td>
<td>(no larger than 1/3 pipeline diameter)</td>
<td></td>
</tr>
<tr>
<td>Density, (UW), pcf</td>
<td>Lightweight</td>
<td>Yes</td>
</tr>
<tr>
<td>Slump, in.</td>
<td>Air, %</td>
<td></td>
</tr>
<tr>
<td>Water Reducer</td>
<td>Regular</td>
<td>MRWR</td>
</tr>
<tr>
<td>Fibers</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

4. Jobsite / Safety

| Wash out area | Yes | No |
| Power Lines | Yes | No |
| Safe Set up Area | Yes | No | Restrictions |
| Clean Water available for washout | Yes | No |

5. Notes

Beginning the pumping job with a step-by-step procedure will not always ensure that the job goes according to plan, but by following the checklist, operational and safety challenges will be kept to a minimum and everyone can go home safely!
Designed with your bottom line in mind.

The CIFA hopper allows the servicing of normal wear components to be completed in a matter of minutes — not hours. This innovative design includes a removable cutting ring, wear plate and compensating ring assembly that can be changed out without the removal of the S-tube.

With over 75 years of experience in the concrete industry, every CIFA component is designed to help your business run smoothly and profitably. Our non-competitive dealer network provides unbeatable service and parts support that is there when you need it.

CIFA knows concrete. Put our knowledge to work on your next job.

2122 E. Birchwood Avenue  •  Milwaukee, WI 53110
414.294.5690  •  fax 414.294.5694  •  www.cifausa.com
The Sarbanes-Oxley Act of 2002 (the “Act”) is the driving force for the most significant changes affecting the business world in decades. Most of the attention to date has been on the Act’s impact on publicly held companies. However, there is a significant tangential effect to all companies and to individuals.

The Act was Congress’ response to the major accounting scandals, most notably Enron, Global Crossing and WorldCom, and the resulting public outcry for change. At the root of these scandals were the abuse of accounting standards and the failure of the auditors to discern what was really going on. The Act changed corporate governance, including the responsibilities of directors and officers, the regulation of accounting firms that audit public companies, corporate reporting and enforcement.

This article will focus on some of the Act’s key provisions, namely those related to disclosure controls and procedures, internal control over financial reporting and codes of conduct and ethics. It will also address issues related to the newly formed Public Company Accounting Oversight Board and it will focus on how all of this affects the typical privately held producer.

Also, this article will discuss the impact of Rule 101-3 of the American Institute of Certified Public Accountants (“AICPA”) Ethics Committee, Performance of nonattest services.

What the Act Does

Corporate responsibility – Publicly held companies have long had audit committees and the Act significantly increases their responsibility. The audit committee now has greater auditor oversight, including prior approval for non-audit services performed by the auditor and the disclosure of all non-audit services of the auditor approved by the committee. The CEO and CFO also must certify that both annual and quarterly financial reports are accurate and
not misleading. In addition, both must indicate they have met their personal responsibility for evaluating internal controls.

**Auditor independence and regulation of auditors** — Auditors have always been required to be independent of the companies they audit. The Act has made these requirements more stringent and calls for increased regulation of auditors. Auditors are also now prohibited from performing many non-audit services other than tax services. This is a direct response to the perception that the lucrative consulting services performed by many auditors for their audit clients were affecting the quality of the audit.

**Disclosure Controls and Procedures**

**Overview** — Among the most publicized parts of the Act are the sections relating to internal control. Specifically, the Act requires companies to maintain procedures to evaluate and make certain disclosures concerning their “disclosure controls and procedures” and “internal control over financial reporting.” Furthermore, companies subject to the Act must also include an attestation from their auditors confirming management’s conclusions in its evaluation of the internal control over financial reporting.

This is a significant change from pre-Act requirements. Companies have long had controls and procedures in place related to their accounting systems to make sure that, for example:

- Cash receipts are properly deposited and credited against receivables.
- Cash disbursements are properly authorized and supported by vendor invoices.
- Inventories and property and equipment are properly secured.
- Accounts are promptly reconciled.

Many but not all companies had internal auditors to test the effectiveness of these systems. The existence of internal audit departments was more likely as the size of companies increased. Depending on the nature of the internal audit department and the procedures performed by them, it was possible for the external auditor to reduce the level of tests they performed on the companies’ controls. In some cases, especially with smaller publicly held companies with very small accounting staffs, the auditor might have chosen not to perform any such tests and, instead, perform a greater amount of tests on the actual accounting records.

As stated, the Act goes beyond this. Under Section 404 of the Act, all publicly held companies must perform an appropriate amount of tests to determine the effectiveness of their systems. In turn, the auditor has to separately perform tests to confirm that they agree with management’s assessment.

**Developing procedures** — To comply with the Act, procedures have to be designed carefully and senior management should be involved in the process. Procedures should be written and provide guidance to employees. Furthermore, they should be tailored to the individual company — its structure, processes and industry. The resulting procedures need to be reviewed on a quarterly basis.

The documentation requirements are extensive and should include the following:

- The reports covered by the procedures.
- The people responsible for each section of the reports.
- The business units or departments involved.
- How these units or departments collect the information to be disclosed

- How the information collected is communicated to those responsible for preparing the report.
- Materiality thresholds.
- How the process relates to the financial reporting system.
- How draft reports are reviewed and revised, including review by outside advisors, such as auditors, other experts and outside counsel, and by the board of directors or audit committee.

To meet their responsibilities, the CEO and CFO must personally be involved in this process. They are required to review all reports requiring their certification and need to question the actual report preparers if they themselves believe the disclosure is fair, accurate and complete or if they think any part of the disclosure is questionable.

The Act changed corporate governance, including the responsibilities of directors and officers, the regulation of accounting firms that audit public companies, corporate reporting and enforcement.

**Internal Control Over Financial Reporting**

Similar to the rules over disclosure controls, companies are required to include in their annual reports a report of management on the company’s internal control over financial reporting. The auditor must then attest to, and report on, management’s assessment of the effectiveness of the company’s internal control over financial reporting. The auditor will also require the company to develop and maintain evidence to support management’s assessment.

Internal control over financial reporting means a process designed by, or under the supervision of, the company’s principal executive and principal financial officers to pro-
All public companies must be audited in accordance with PCAOB standards. Privately held companies have two options – PCAOB standards or AICPA standards. Privately held companies considering going public in the future may wish to consider having their audits performed under PCAOB standards.

provide reasonable assurance for the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. This includes those policies and procedures that:

- Cover maintaining records, in reasonable detail, that accurately and fairly reflect the transactions and dispositions of the company’s assets;
- Provide reasonable assurance that transactions are recorded as necessary to prepare financial statements in accordance with generally accepted accounting principles and that receipts and expenditures of the company are made only under the authorizations of management; and
- Provide reasonable assurance for the prevention or timely detection of unauthorized acquisition, use or disposition of the company’s assets that could materially affect the financial statements.

While the Foreign Corrupt Practice Act established requirements for companies to keep books and records, in reasonable detail, that accurately reflect transactions, the Act expends this requirement to maintaining a “system of internal accounting controls.” The quarterly evaluations of internal control over financial reporting need not be as extensive as the annual assessment. However, management, with the participation of the CEO and CFO, must evaluate any change in the company’s internal control over financial reporting that occurred during a fiscal quarter that has materially affected, or is reasonably likely to materially affect, the company’s internal control over financial reporting.

Codes of Conduct and Ethics

Section 406 of the Act requires companies to disclose whether they have adopted a written code of ethics for the company’s principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. A company that already has such a code of ethics does not need to adopt a new one, but it must meet the requirements of the rule. However, a company that does not have a code of ethics must explain why it does not have such a code.

Contents of the Code of Ethics – Under Section 40, a code of ethics means standards that are reasonably designed to deter wrongdoing and to promote the following:

- Honest and ethical conduct, including ethical handling of actual or apparent conflicts of interest between personal and professional relationships;
- Full, fair, accurate, timely and understandable disclosure in reports and documents that a company files with or submits to the SEC and in other public communications;
- Compliance with applicable laws, rules and regulations;
- Prompt internal reporting to an appropriate person identified in the code of violations of the code; and
- Accountability for adherence to the code.

Codes of ethics are expected to vary from company to company. The Securities and Exchange Commission has strongly encouraged companies to adopt codes that are broader and more comprehensive than necessary to meet the disclosure requirements.

Making Codes Publicly Available – The rules provide for the following three methods of making a company’s code of ethics available:

- Filing it as an exhibit to the company’s annual report;
- Posting it (or relevant portions) on its website, provided that the company has disclosed its Internet address in its applicable annual report;
- Offering in its annual report to provide a copy to any person without charge on request.

The Public Company Accounting Oversight Board

Title I of the Act covers the establishment and organization of the Public Company Accounting Oversight Board (“PCAOB”). Section 101 of the Act establishes an independent, non-governmental board to oversee the audits of public companies to protect the interest of investors and to further public confidence in independent audit reports. The specific powers of the PCAOB are as follows:

- To register and discipline accounting firms that audit public companies;
- To establish audit and accounting standards; and
- To investigate financial irregularities.

Section 103 contains some of the most significant aspects of the PCAOB. The PCAOB now has the authority to establish, through the adoption of standards proposed by one or more professional groups of accountants, auditing standards and related attestation standards for register public accounting firms to use in preparing and issuing audit report. The Act effectively gives the PCAOB the right to establish auditing and accounting standards.

To date, the PCAOB has decided to allow the Financial Accounting Standards Board (“FASB”) to establish accounting standards. However, various parties, including accounting firms, had funded FASB. Taxes and fees now fund FASB, in an effort to increase its independence of users of accounting standards.

The Auditing Standards Board of the AICPA had long set auditing standards. As much of the anger and blame toward the accounting scandals had been directed at
Before I was a tilter, 
Now, I’m a RollMaster

The New Mixer 
For The Ready-Mix Industry 

- Produce more than 350 yd³/h. 
- Operation cost less than 5¢ / yd³ 
- Use 37% less power to operate 
- Variable speed drive eliminates power peaks 
- Mix RCC to 12” slump without spillage 
- Use 50% less space than tilter mixer 
- All enclosed for 100% dust control 

See us at ConAGG 
Booth #9704 

BMH SYSTEMS 
tel.: 450.449.4770 fax: 450.449.4898 
e-mail: info@bmhsystems.com 

RollMaster by BMH Systems 
www.therollmaster.com
auditors, the PCAOB has decided to set auditing standards. To date, they have continued to use AICPA auditing standards supplemented by new standards. One result of this is that there are now effectively two sets of auditing standards in the United States—PCAOB and AICPA. All public companies must be audited in accordance with PCAOB standards. Privately held companies have two options—PCAOB standards or AICPA standards. Privately held companies considering going public in the future may wish to consider having their audits performed under PCAOB standards.

Issues for Producers

The privately held producer might look at all of this and think, “I’m not publicly held, so this doesn’t affect me.” While there may not be any direct impact right now, there are indirect impacts right now. Furthermore, many observers think it is only a matter of time until the standards resulting from the Act apply to all companies, both private and public.

Impact on CPA Firms – The compliance burden from the Act, especially Section 404, is draining the resources of not only the Big Four accounting firms (Deloitte & Touche, KPMG, PriceWaterhouseCoopers, and Ernst & Young), and the so-called “second tier” firms (such as Grant Thornton and BDO Seidman) but many local accounting firms as well. As noted previously, many publicly held companies do not have the resources to complete the testing required by Section 404. Prior to the Act, many of these companies would have turned to their auditors for assistance in this testing. However, the Act prohibits a company’s auditors from performing the Section 404 testing. As a result, these companies are turning to not just the Big Four and second tier firms, but to local CPA firms. This additional workload is draining the resources of many CPA firms. The article “Is there an accountant in the house?” in the November 15, 2004 issue of Crain’s Detroit Business noted:

For the past few months, Ernst & Young L.L.P. has turned down all the new business that’s been knocking on the door, Detroit Practice Managing Partner Jeffrey Bergeron said. Overloaded with work generated by the Sarbanes-Oxley Act of 2002, the firm just doesn’t have the bodies to take on more work right now.

Small producers that have been using Big Four or other large accounting firms may find that these firms are no longer able to provide the same level of service as in the past. Furthermore, growing producers who are considering switching to a larger accounting firm may find it difficult to obtain those services.

Future convergence – So far, publicly held companies have felt the vast majority of the direct impact of the Act. Many observers think that it is only a matter of time until all or most of these standards will apply to all companies.

Rule 101-3 – Performance of Nonattest Services

The AICPA issued Rule 101-3 to further clarify when a CPA is considered independent of its client. Independence is required for a CPA to perform an attest service, namely the audit, review or compilation of an entity’s financial statements. (A CPA that is not independent of its client can still issue a compilation report if the lack of independence is disclosed in the compilation report.)

Traditionally, in its simplest form, independence meant that the CPA maintained a certain distance from their client. The CPA was not allowed to invest in the client, have a family relationship with the owners and other criteria. These rules were instituted to provide additional assurance to the users of an audited or reviewed financial statement that the CPA was able to provide an objective report.

Rule 101-3 says:

Before a member…performs nonattest services (for example, tax or consulting services) for an attest client, the member should determine that the requirements described in this interpretation have been met. In cases where the requirements have not been met,… the member’s independence would be impaired.

Before Rule 101-3, tax services were not considered a nonattest service. Other nonattest services include:

- Bookkeeping
- Payroll and other disbursement
- Benefit plan administration
- Investment advisory or management

• Corporate finance consulting
• Executive or employee search
• Business risk consulting
• Information systems design, installation or integration

The Rule provides further clarification. Assuming the CPA complies with Rule 101-3’s requirements, a CPA’s independence would not be impaired if the CPA does the following specific bookkeeping services:

• Record transactions for which management has determined or approved the appropriate account classification or post coded transactions to a client’s general ledger.
• Prepare financial statements based on information in the trial balance.
• Post client-approved entries to a client’s trial balance.
• Propose standard, adjusting or correcting journal entries or other changes affecting the financial statements to the client provided the client reviews the entries and the (CPA) is satisfied that management understands the nature of the proposed entries and the impact the entries have on the financial statements.

On the other hand, the following nonattest services would always impair the CPA’s independence:

• Determine or change journal entries, account codings or classification for transactions, or other accounting records without obtaining client approval.
• Authorize or approve transactions
• Prepare source documents
• Make changes to source documents without client approval.

Recall that a CPA must be independent to issue a review or audit report. However, many companies use their CPA firm to not only prepare their monthly financial statements but to actually maintain their accounting records. In this situation, the CPA would not be independent of the client and could not issue a year-end audit or review report.

A more likely instance to affect a producer is when the CPA maintains the depreciation schedules for the producer. Many producers do not have large accounting staffs or personnel with the needed knowledge to properly maintain these schedules. At year-end, the CPA calculates book depre-
ciation and proposes the correcting journal entry. Prior to Rule 101-3, this did not cause independence problems for the CPA.

However, Rule 101-3 says this will not impair the CPAs independence if the CPA complies with the following requirements:

1. The CPA must not perform management functions or make management decisions for the client. (The CPA may provide advice, research and make recommendations to assist client management).

2. The client must agree to perform the following functions in connection with the engagement to perform nonattest services:
   a. Make all management decisions and perform all management functions;
   b. Designate a competent employee, preferably within senior management, to oversee the services;
   c. Evaluate the adequacy and results of the services performed;
   d. Accept responsibility for the results of the services; and
   e. Establish and maintain internal controls, including monitoring ongoing activities.

The CPA further must be satisfied that the clients will be able to meet all of these criteria.

Before performing nonattest services, the member should establish and document in writing his or her understanding of the above with the client.

These requirements are a significant change from the past. In essence, it says that in order for the CPA to perform certain services they routinely provided in the past, the client must oversee these services and establish its own controls to oversee the service. If this does not occur, then the CPA would not be independent for attest services it would provide to the client. This is likely the first time that professional standards have been specific requirements on the client.

The end result is that many CPA firms are forced to determine if they can continue to provide nonattest services to attest clients. For example, many CPA firms have decided they will only provide the nonattest services to a client and have the client retain a separate CPA firm to perform the audit or review. The unfortunate side effect is that this results in an increase in fees incurred by the client. One CPA in Washington State indicated that after making this change, his clients saw an average in increase in professional fees of 17 percent.

Conclusion

The Sarbanes Oxley Act and Rule 101-3 are already having far-reaching effects on producers throughout the country in the form of increased procedures and increased fees. Producers should consult with their professional advisors to determine how these changes will continue to impact them.

Joel Ungar is the founder of Concrete Accounting and can be reached at 248/539-9160 or via email at jungar@concreteaccounting.com.
A memorandum from the Tennessee Board of Regents (TBR) dated December 13, 2004, announced that the Tennessee Higher Education Commission (THEC) approved a new concentration in concrete contracting for the Concrete Industry Management (CIM) program. This new addition will complement the nationally recognized existing program in production, sales and service that has been supplying new professionals to the industry since 2000.

The idea for a concrete contracting concentration was conceived in Fall 1998, but with the CIM program still in its infancy, development was postponed. Once enrollment in CIM had reached the necessary level to ensure program stability, an industry panel of the nation’s leading concrete contractors was assembled to flesh out the required curricular changes for a contracting track. In Spring 2003, executives from concrete construction companies, governmental agencies and general contractors doing business across the United States gathered in Murfreesboro, TN, to work out a basic blueprint for the new concentration.

Approval of the new concentration is a major step forward in advancing the future knowledge and professionalism of the concrete industry, and is a tribute to the support CIM has received from the American Society of Concrete Contractors and the CIM National Steering Committee (NSC), a group of industry executives encompassing all facets of the concrete industry, including precast, masonry, ready mix, materials suppliers, contractors and associations, including NRMCA.

Another major initiative of the NSC is expansion of the CIM program model to other select universities across the country. Thanks to a $600,000 National Science Foundation grant, the process of expansion has already begun with the identification of target universities as potential hosts of the program. For more information concerning CIM and any of its activities, please contact CIM Program Director Austin Cheney at 615-904-8470 or via email at acheney@mtsu.edu.
Here are only a few more truck mixers to load for the day, the day’s work is nearly over…it’s a great time to start thinking about tomorrow. It’s time to start shutting things down.

Plant shutdown procedures are an important part of the operations at a ready mixed concrete facility. Completing the tasks without taking short course is essential for a smooth opening of business the following morning. Most concrete plants around the country do a high volume of the daily production in the first few hours of the day and a very small percentage in the last few hours. In order to make sure things to go smoothly in the busy morning period, the plant operator should use the slow time at the end of the day wisely to get ready for the following workday.

It is most companies’ policy to record usage of cement and other materials at the end of each business day. Cement, slag, fly ash and aggregate usage reports play an important role in a producer’s accounting procedures. Understanding usage and levels of materials in silos and bins is critical to avoiding interruptions and stoppages of production due to insufficient material. If the aggregate bins are not drained at night to avoid freezing problems, fill them completely before starting procedures to shut down the aggregate feed systems. Having full bins will give a head start for the following morning’s active production period. Sometimes during cold and wet periods, it can also be helpful that the aggregates in the pre-loaded bins have had the opportunity to drain off excess moisture and/or get warmed overnight from heating of the weigh batcher area. When shutting a plant down for a prolonged period, it is best to empty the aggregate bins.

Water and admixtures lines need extra care at the end of the business day. Plants that are equipped to use clarified wash water or slurry as batch water should have these lines back-flushed regularly. Some admixtures require the lines to be flushed at the end of the day to prevent buildup. Finally, don’t forget to give the plant a good visual inspection as you leave.

The following is a list of shutdown procedures that are common to most ready mixed concrete facilities:

- Remove any material spillage or build-up on and around the weigh batchers.
- Double check to ensure each weigh batcher is empty. Manually open each gate and vibrate thoroughly to dislodge any material that may be remaining. Always confirm that the scale readout is showing zero.
- Make sure the scales are free and tare if necessary.
- Always check the quantity of materials in storage. Ensure cement, pozzolans (fly ash, ground slag, etc.) aggregate and admixture orders for the following day will meet the material supply needs.
- Empty all dust collectors and inspect, empty or secure shaker bags, if necessary.
- Notify co-workers where you are and what you are doing when you are shutting down equipment.
- Turn the power off to the air compressor and drain the tank and moisture traps.
- Complete any scheduled daily lubrication duties.
- Check the local weather forecast to see if any additional precautions may be necessary during shutdown.
- Complete any daily paperwork.

Cement, slag, fly ash and aggregate usage reports play an important role in a producer’s accounting procedures.
Good Neighb

By John Hilbrink

ike many aggregate and ready mixed concrete operations in the United States, when Alby Materials, Inc., began digging its pit in 1969 the land was a converted farm removed from the closest community by several miles and the other scattered farms by a comfortable distance. As Waterford, WI, a small town located 20 miles southwest of Milwaukee, continued to grow it expanded westward and the distance between mining operations and the populace decreased dramatically. The importance of considering the needs and comforts of new neighbors, while still protecting the right to continue operations, has become an important part of the day-to-day operation.

This small- to mid-sized ready mixed concrete and aggregate operation has aggressively taken steps to make community relations a significant priority, not only to help combat the “not-in-my-backyard syndrome,” but as second-generation owner and President Terry Alby states, “We want what’s best for everyone involved. It is our community; we are neighbors.”

“It does not matter who was here first,” says Alby, “Maybe it should, but new home owners do not want to have to deal with the possible dust and noise from a mining operation, even if the pit was here first. We understand that and this awareness is the first step toward creating relationships that ensure everyone’s rights and comforts.”

Alby Materials’ success in maintaining positive relationships with their communities consists of six key tactics: creating and maintaining relationships with the community; teaching for the future and today; political action; quality products and quality operations; communicate the message and having long-term vision.

Creating and Maintaining Relationships with the Community

“It is easier being angry at a nameless corporation than being mad at a neighbor who is trying to make a living and provide quality materials and services to the community,” says Alby. “And conversely, it is harder
to ignore the discomforts of people you know.”

To this end, Alby Materials has worked hard to get to know its neighbors closest to the mining operations. There have been formal meetings and informal discussions. Letters and surveys get sent on a regular basis. The local neighbors receive the company’s ongoing eight-page newsletter. Specific concerns receive a response. Issues that can be addressed receive prompt action. If they cannot be addressed, the person or people expressing the concern are contacted and informed why this cannot be changed.

“We don’t always make people happy,” says Alby. “However, we want to make sure they know they were heard and that we care.”

In addition to this specific group, Alby Materials also works on relationships throughout the community and the region. An Alby Materials’ Donation Committee meets regularly to determine where its philanthropic efforts should go, with a regular emphasis going toward local organizations. The company takes part in several chambers of commerce in the area and decorated ready mixed trucks or other machinery make regular appearances in several holiday parades. The most visible of the efforts to interact with the community is Alby Materials’ Kids’ Day, an opportunity for the children of the area to interact with the large machinery and to have a chance to see an aggregate operation.

To this end, Alby Materials has worked hard to get to know its neighbors closest to the mining operations. There have been formal meetings and informal discussions. Letters and surveys get sent on a regular basis.
We stand behind the strength of our technical service and the performance of our products with the passion to meet the needs of our customers.

As one of the largest suppliers of portland cement in the United States, you can count on our support. Holcim - a global company providing local solutions.

Corporate Headquarters
Holcim (US) Inc.
6211 Ann Arbor Road
Dundee, MI 48131
(800) 854-4656
www.holcim.us

---

Riviera Brush Co. -- Ready Mix Washout Supplies
Supplying the Ready Mix Concrete Industry With Acid-Proof Washout Brushes & Handles Since 1986!
We Take Pride In Helping You Protect Your Valuable Investment In Equipment!

Visit Booth S-9127 @ The Con/Agg Show For Show Specials!!

Featuring:
Orange-Crete™ Wash Brushes
& Oversize Fat-Handles™
(Introduced to the Ready Mix Industry in 1988)
The Original & Often Copied

BOOT BRUSH
Removes Mud, Dirt or Grass -- Wet or Dry
Rugged Construction & Easy Clean-Up
Give Dirty Boots The Brush-Off!!

For a Catalog, Order or Free Samples
Call 1-800-225-4724 -- Fax 1-510-222-4725 or Visit www.RivieraBrush.com
“I have heard other producers frustrated and angry that neighborhoods are getting closer and closer to their operations,” Alby says. “I don’t understand getting frustrated by growth of our community. It speaks well about the place we call home and besides, we helped provide a great deal of the materials used for the buildings and the infrastructure.”

Teaching for the Future and Today

A very specific type of interaction with the area is teaching area schoolchildren the importance of mining and construction. While the kids are not immediate decision makers, through Alby Materials’ Everything Comes from Something Program, the company works on informing, teaching and planting the seeds of understanding with future decision makers. The program stresses the role of concrete and aggregates in their lives and delves into the importance of recycling from aluminum cans to concrete, reclamation of the land and even discusses the reforestation programs of some mine operations. It also teaches kindergarteners through junior high school students about the influence of glaciers in southeast Wisconsin, and nearly every class ends with a fossil and rock hunt in which students are allowed to keep everything they find and carry. Very determined grade schoolers have trudged back to their bus carrying one- to two-foot slabs of dolostone encrusted with crinoids or trilobites.

“Our employees have young adults stop them in the street, remembering them from a program seven or eight years ago,” Alby says. “Even after all that time, you can still see the excitement in their eyes. These people will be ambassadors for our industry for years to come and it’s worth the investment we make in them. In addition, the children teach their parents about what they learned and we get an immediate benefit.”

In addition to working with the younger students, Alby Materials works with older students as well. The company started a mentoring job awareness program called Construction Career Connection (CCC). The CCC program has since been handed off to the local home builders association to facilitate, however Alby Materials still receives recognition for its role in the program. In addition, Alby is working with the local AGC chapter and its president, Peter Scherrer, of Scherrer Construction, supporting the development of a construction academy within area high schools. The company provides its technical staff to help lead classes on concrete for some of the area vocational classes and allows its vertical file, video and publication library to be used by area teachers and professors.

Alby University, the company’s ongoing education series for contractors and consumers, continues to teach a variety of topics aimed at product and process knowledge. Finishing demonstrations, cold weather concreting, retaining walls, rental equipment training and marketing are just a few of the subjects taught in this nationally recognized program.

“Knowledge and information are truly our best ways to explain the importance of our industry,” says Alby. “We try to get the facts in front of people at any age we can.”

Political Action Is Important At All Levels

“Don’t be afraid to get political,” says Alby. “While it is important to not burn bridges, get involved with the process and support the candidates that make sense for your business and your convictions. Get to know the town council, the county supervi-
RoMix Chemical and Brush Inc.

ACID ALTERNATIVE
* Biodegradable
* Safe & Effective
* Non-Corrosive
* Cost Effective
* Non-Fuming

TURNS HARD SET UP CEMENT BACK INTO RINSABLE MUD!

BACK-SET
MOLECULAR CEMENT DISSOLVER™

BACK-SET IS AN ACID ALTERNATIVE WITH NO FUMES OR ODORS. THIS SAFE BUT EFFECTIVE ALTERNATIVE IS AN INNOVATIVE CHEMICAL CONCEPT. BACK-SET MOLECULARLY ATTACKS THE PORTLAND IN CEMENT, COMPLETELY DISSOLVING THE HARDENED MOLECULAR STRUCTURE BACK INTO RINSABLE MUD! BACK-SET UTILIZES A NATURAL INGREDIENT DERIVED FROM SUGAR AND CITRUS; THIS PRODUCT IS NOT HAZARDOUS, DOES NOT HARM PAINT OR PRODUCE FUMES, AND IS BIODEGRADABLE. BACK-SET DOES NOT CONTAIN MURIATIC, HYDROCHLORIC, HYDROFLUORIC, SULFURIC OR PHOSPHORIC ACIDS. USE BACK-SET TO REMOVE CURED CEMENT FROM VIRTUALLY ANY SURFACE.

Come See Us Booth #11129

GROWTH CAPITAL PARTNERS
Investment & Merchant Banking

- Focus on Privately-Held Middle-Market Companies
- M&A and Capital-Raising

Alan Blackburn
Managing Director
281/445-6611

363 North Sam Houston Parkway East, Suite 550
Houston, Texas 77060

www.growth-capital.com
create a ‘benefit of the doubt’ mindset.”

Some of the steps seem too simple to have an impact. A clean fleet of trucks probably does not increase sales at all. Yet it communicates to the community that the company cares. Switching from audible back-up alarms to visual back-up alarms has a more direct public relations effect, as does frequent watering, seeding piles and minimizing the movement of materials by preplanning and understanding future mining and reclamation efforts.

Communicating the Message

“I struggle with not promoting any positive efforts for fear of the perception of gloating, however, it is important that our various audiences know what we are doing, both from the production and growth angle, as well as some of the operations and public relations efforts we make,” says Alby.

To this end, Alby Materials’ marketing department consists of marketing, public relations and graphic design professionals. This helps ensure a consistent and professional message is communicated on an ongoing basis. It is not an effort relegated to the back burner during the high-volume months, but a constant presence. The marketing and public relations implications are always examined before the company makes significant changes.

In addition, the company understands how to generate positive public relations. Involvement with industry associations, for example, provides wonderful learning opportunities and can generate positive news. Associations and other similar activities create news with various opportunities — safety awards, fleet graphic awards, concrete design awards, marketing awards and election to state and national boards.

“It is not always easy to determine the return-on-investment that a newsletter, a press release, a well-designed brochure or a trade show presence may have,” says Alby. “Yet if I track our company’s growth over the last 12 years that we have had a marketing and public relations department, it clearly has had a dramatic effect.”

Having Long-Term Vision

“We are in an industry that sometimes gets short sighted, just focusing on how many yards of concrete we produce, how many trucks we have and how much aggregate tonnage got processed each day,” says Alby. “There is no denying these are important statistics. However, if a company has a clear, long-term vision, it will help provide direction and continue to breed confidence within your community.”

While much of a company’s future plan may need to stay confidential, communicate what you can and act upon the plan when the right conditions exist. Alby says there is no reason to not communicate a pit’s reclamation plan. It gives the community a glimpse at the future neighborhood, park or

Alby Materials' new Kids Day ready mixed truck leaves the winter of Wisconsin for the World of Concrete in Las Vegas.
“I have the responsibility to run a successful company,” says Alby. “It helps my family and our employees. Yet to do this at the expense of our community is exceedingly short-sighted. It will end up costing me business, lower the value of my company and upset the people in a town that is very important to me.”

Another key to having a successful long-term plan is to be sure the current foundation is strong enough to support future plans. Alby Materials has been going through a reorganization process, ranging from building staff to articulating and implementing core values throughout the company. This entire process has been so vital to the company it has brought in various consultants to help with different aspects of the reorganization, including Eric Plantenberg of Freedom Speakers to guide the company through the development and articulation of its core values. In addition, Freedom Speakers is leading a series of seminars for Alby Materials’ employees on goal setting, time management, and professional and personal development topics.

Be True of Heart

While community relations, political savvy, solid operations and a quality product are important to a successful business, if profit is the sole motivation for these efforts, the public will quickly catch on and any future work will be dramatically less effective. In addition, one misstep will quickly unravel decades of effort.

“I have the responsibility to run a successful company,” says Alby. “It helps my family and our employees. Yet to do this at the expense of our community is exceedingly short-sighted. It will end up costing me business, lower the value of my company and upset the people in a town that is very important to me. Waterford and southeast Wisconsin is more than where I do business — it is my home and we are going to run this company constantly aware of that simple fact.”

For more information, contact John Hilbrink at 262/723-6160.

Do you have a good neighbor story to tell? Contact Frank Cavaliere at NRMCA at fcavaliere@nrmca.org.
All tanks built to UL specs.
Burners have UL, local, state approval
Operates on #2 oil, natural gas or propane (or combination)
No gas needed for ignition on #2 oil
Weatherproof construction/no building required
No water treatment necessary
No boiler inspection required
Heat transfer efficiency 90%-95%
Automatic operation/virtually maintenance free

MODELS: 3000-30,000 GAL • HEATS UP TO 120,000 GAL./DAY
STATIONARY AND PORTABLE • CHILLERS: 200-6000 YDS./DAY

The best equipment. Feature for feature our systems reflect leading edge technology, which we continually upgrade to maintain a leadership position. That’s why, when it comes to temperature control for concrete, our systems are the most rugged, efficient and reliable out there. With a form-follows-function design for easier installation and service. Plus many off-the-shelf brand name replacement parts for availability and cost savings. And options that include total water management systems, slurry temperature control and specialty pumps. There’s even a heater combustion kit for self installation into an existing tank.

The highest level of service. Our technical people are available before, during and after installation to make sure our equipment keeps doing all that it’s supposed to do! With in-house personnel and a nationwide network of dealers and representatives, to assure prompt, competent service.

Our air-cooled water chillers offer significant performance advantages. Including energy efficiency to 10.2/full and 13.5/part, a unique heat exchanger tube design, a field-proven hermetic scroll compressor, reduced noise and vibration – and easy access for serviceability. Plus much more.

So when you need water temperature control for concrete production – look to PEARSON for both pieces of the puzzle: superior equipment and technical service you can count on.
During his term as governor of New York, Theodore Roosevelt endured a protracted political battle with party bosses. He eventually emerged victorious. In a letter to a friend, he attributed his success to a West African proverb that teaches: “Speak softly and carry a big stick; you will go far.” Roosevelt continued to apply this proverb while president of the United States in politics, nation building and international conflict.

Let’s apply it in the workplace.

In the employer-employee context, “speaking softly” means expressing management’s expectations of employees in a manner that respects their dignity and keeps the supervisor’s own ego in check. The “big stick” symbolizes the supervisor’s commitment to results. Both elements are necessary. Without the speech, employees will lack direction. Without the big stick, employees will not understand the necessity of obtaining the desired results and will confuse soft speech with a soft will. The following scenarios illustrate this principle.

During his term as governor of New York, Theodore Roosevelt endured a protracted political battle with party bosses. He eventually emerged victorious. In a letter to a friend, he attributed his success to a West African proverb that teaches: “Speak softly and carry a big stick; you will go far.” Roosevelt continued to apply this proverb while president of the United States in politics, nation building and international conflict.

Let’s apply it in the workplace.

In the employer-employee context, “speaking softly” means expressing management’s expectations of employees in a manner that respects their dignity and keeps the supervisor’s own ego in check. The “big stick” symbolizes the supervisor’s commitment to results. Both elements are necessary. Without the speech, employees will lack direction. Without the big stick, employees will not understand the necessity of obtaining the desired results and will confuse soft speech with a soft will. The following scenarios illustrate this principle.

**Getting Started With a New Employee**

All too often, employees are left to their own devices in carving out a path to success or failure with their new employers. They receive a general orientation on company policy, procedure and practices. As for crucial performance and behavioral expectations that will determine their future, however, management is largely silent — at least until problems arise.

Conversely, some companies induct new hires into a form of boot camp in which employees are drilled on the rules and
The soft voice/big stick approach is especially useful for companies that use initial employment review periods to scrutinize new hires to determine whether the employment fit is right.

warned of dire potential consequences should they fail to do the do’s or succeed in doing the don’ts.

Both approaches create unnecessary problems and lost opportunities. In the first approach, where there is neither “voice” nor “stick,” some new hires will nevertheless manage to stumble forward toward success and figure out the path on their own. However, many employees will miss out on success, not because they lacked ability, but because they needed clearer direction as to the desired path and importance of taking it.

In the second approach, where the voice booms, the tendency for new hires will be to keep their heads down – go along, get along and don’t stick your neck out. This approach will cost employers that discretionary energy that employees offer if they are properly motivated. It’s this energy that leads employees to take risks on behalf of the company, to show initiative and to volunteer ideas that help the employer exploit valuable opportunities or avoid costly mistakes.

Applying Roosevelt’s soft voice and big stick method avoids the pitfalls of the two approaches described above. Using this approach, the supervisor explains to the new hire precisely what is expected (the voice), expresses the consequences attached to these expectations (the stick), but does so with a straightforward, ego-free demeanor that respects the new hire’s dignity (the “softness” of the voice). In this way, the supervisor expresses optimism about the new employment relationship while at the same time outlining what is necessary for that optimism to be validated.

“We hired you, Jim, because we feel you have high potential and there is a good fit between your abilities and skills and our needs for your position. Now to be successful, the following things are critical: [insert performance and conduct expectations].”

The soft voice/big stick approach is especially useful for companies that use initial employment review periods to scrutinize new hires to determine whether the employment fit is right. Although many companies espouse such policies, few actually use them. The few that do, and make it a priority for managers and supervisors to make early evaluations and nip hiring mistakes in the bud, report great success.

For such employers, the soft voice/big stick message is along the following lines: “Sally, as we explained in the handbook, our company follows the ‘at-will’ rule of employment throughout an employee’s term with the company. However, we take an especially close look at the first 60 days of employment to assess whether the fit is right with the new hire and the position he or she has filled. If we determine that the fit is not right, this does not mean we think you are a bad or incompetent employee; it simply means that despite our efforts during the hiring stage, we probably made a mistake in the fit-to-job assessment. Now, during this 60-day period, and thereafter, we will be paying particular attention to the following things: [insert performance and conduct expectations].”

As one can readily see, there is no question about the “big stick.” Yet, the voice is still soft-spoken and fully respects the dignity of the new employee. Without being domineering or demeaning, the supervisor has conveyed a clear message as to what is expected and the consequences for failure to meet expectations. Such an approach gives both parties the best chance at achieving a successful fit between employee and position.

Dealing with the Problem Employee

When a problem does arise, there is perhaps no better use of the soft voice/big stick approach. Consider the following hypothetical.

With increasing dismay, you observe your employee, Roy. He frequently comes in late, leaves early, makes excessive mistakes and fails to complete assignments. Yet he noisily whines about perceived unfairness. One day, he carelessly loads materials on a pallet. A box of expensive products subsequently falls off a forklift and breaks. After first denying that he loaded the materials, then being caught in the falsehood, Roy blames the forklift operator.

You’ve decided enough is enough. You prepare to confront him but are worried about how you will be able to control a meeting given Roy’s outspoken, deny-all-responsibility mantra and his refusal to accept even the theory of a shortcoming on his part.

A manager who has finally developed a sufficient head of steam to confront the employee is angry at the repeated performance and conduct problems, yet is anxious about losing control of the meeting. Out comes the big voice.

However, the best approach is usually the opposite. By combining a humble demeanor with an unwavering commitment to results, you actually create the best possibility of getting through to Roy and creating positive change – or of making and executing the decision that Roy must move on.

Compare two approaches:

“Roy, I can’t tolerate this situation any longer. Your attendance, attitude and performance stink. I’ve heard enough of your excuses and don’t want to hear any more. I
am sick and tired of you pointing the finger at others whenever there is a problem. Listen, Roy, you had better get your act together, start showing up on time, working your full shift, quit screwing up and blaming others, and I don’t mean maybe!

Or, “Roy, there are some serious issues we need to address. I’m concerned about whether there is a good fit with you and this company. This incident raises some important concerns about safety and making sure our employees act with care. My investigation of this incident has led me to the conclusion that you did not exercise the necessary level of care that we need. Please understand, Roy, if in my best judgment you are not meeting the needs and expectations of this company, and it does not appear that you can raise your conduct to the necessary level, I will have a duty to this company to let you go. I hope not to have to make this decision. The purpose of this meeting therefore is to give you an opportunity to remain with us.”

In the first approach, the supervisor attempts to overpower Roy’s resistance through force of words, volume, tone and body posture. He vents his frustrations yet fails to focus on the results that must be obtained and consequences if they aren’t. In effect, the supervisor compounds his mistake by substituting speaking loudly for carrying the big stick. This approach may work in some cases. However, it carries the risk of making an ugly situation uglier. Even if such an approach works, the success will probably only be temporary. Soon enough, irresistible force will again have to meet immovable object. Also, this confrontational cycle will take its toll on the supervisor personally. (Roy knows this and will adopt his own guerrilla strategy for resistance).

By contrast, the second approach is almost pleasant in comparison. You can use the soft voice because your power comes from the big stick of making it unmistakably clear to Roy that either his conduct will change or his job status will. Yet you are conveying this message in a manner that fully respects Roy’s dignity. You therefore have a much better chance of catalyzing constructive change. Even if Roy does not make the necessary changes and you ultimately have to wield the stick, you are far more likely to end the relationship without rancor and bitterness.

Don’t Brandish It

Carrying a big stick does not mean brandishing it. The new hire does not need to hear the “at-will” mantra ad nauseum. The problem employee does not need explicit threats of discharge. Such approaches are counterproductive and may produce a desire for vengeance, which can take the form of legal action or worse.

By contrast, a soft-spoken commitment to take action works much more effectively. With their dignity and self-respect intact, employees nevertheless understand that you mean business. Just as the New York politicians understood Governor Roosevelt, your employees will understand the following of you: although it’s not your desire, if necessary, you will use the stick. Coupled with a clear message of what you expect, this knowledge should produce successful, constructive results in most cases. Without having been used, the stick will have served its purpose.

Jathan W. Janove is a partner in Janove Baar Associates L.C. in Salt Lake City and author of the book Managing to Stay Out of Court: How to Avoid the 8 Deadly Sins of Mismanagement, available from the Society for Human Resource Management at www.shrm.org/shrmstore. He is an employment law attorney who spends much of his professional time training and coaching managers on dealing with workplace challenges.


The views and opinions expressed are those of the author and do not necessarily reflect the views and opinions of the National Ready Mixed Concrete Association.
Each of the CPMB members participates in establishing the highest standards for our industry. When you buy a concrete plant with a CPMB plate, you know it’s built with the best in quality and design.

Join construction industry leaders who for nearly 50 years have looked to CPMB when choosing precision and value in concrete plants and components.

Call the Concrete Plant Manufacturers Bureau for more information.
Please note: The column contained here should in no way be considered a substitute for competent legal counsel. It is only meant as a guide to help employers know when it is necessary to consult an attorney on issues pertaining to labor-management relations and other workplace issues.

Question:
Can language in a collective bargaining agreement between my company and a union representing mixer drivers supersede the Federal Motor Carrier Safety Administration’s drivers’ hours of service (HOS) rules?

Answer:
No. Provisions contained in collective bargaining agreements may neither require nor allow any individual or company to violate federal regulations. For example, Callahan Ready Mixed Concrete Company operates six days each week and its employees are represented by Union Local #1. Driver Lawrence has exhausted his hours for the week – 60 hours – by close of business on Friday, and therefore has no “driving” hours available. Because he is first on the seniority list, according to the bargaining agreement, driver Lawrence must be offered Saturday work if work is available. However, driver Lawrence may not drive on Saturday because HOS rules supersede any bargaining agreement. However, if non-driving work is available, he would be allowed to perform non-driving functions.

WE BUILD CONCRETE PLANTS, CONVEYORS, REPLACEMENT BINS, SILOS AND DUST COLLECTORS.
CALL TOLL FREE
1-866-817-7838
www.americaconcreteservice.com

The Industry Leader in Concrete Removal!
Ready-Mix Drums, Silos, Plant Cleaning
No Job’s too BIG, No Job’s too small!
1-866-487-2041
www.americaconcreteservice.com
Best Sellers from the NRMCA Bookstore

1. 2PCIP100 – Concrete In Practice Package
Concrete in Practice Sheets are short 1-page discussions on various concrete topics and are written in a “What? Why? And How” scheme and are intended to provide information on a non-technical format. The CIP topics are researched and written by members of NRMCA’s Research, Engineering and Standards Committee. These are a great resource to give to your contractors and customers. English CIP Full Set 2PCIP100 – contains 20 sets of each CIP topics 1-38. Spanish CIP Full Set 2PCIP100es – contains 20 sets of each CIP topics 1-36. ($180 members, $720 non-members); English Single Set 2PCIPS & Spanish Single Set 2PCIPSes ($20 members, $80 non-members)

2. 2PRD025 – How About This Weather
Even though modern ready mix trucks are equipped with air conditioning for warm weather and heaters for cold weather, the CDP is often required to work out in the elements. This video lesson provides guidelines to survive both cold and warm weather situations. The video outlines 7 different conditions resulting from overexposure to heat. The video also includes tips on preventing overexposure to heat. Included are prevention methods against hypothermia as well as dealing with someone who is experiencing hypothermia. 14:00 minutes ($70 members, $90 non-members)

3. 2P188 – Truck Mixer Driver’s Manual
This manual educates truck mixer drivers about concrete and customer relations. Completely updated for 2004, it also highlights driver duties, safety precautions, equipment inspection and maintenance procedures, and what the driver should do in case of an accident. This 64-page manual is easy to understand and contains common sense information every driver should know. ($10 members, $40 non-members); (20 or more copies $8 members, $32 non-members)

4. 2PRPP- Rollover Prevention Program
The NRMCA Rollover Prevention Program CD consists of a 55 slide PowerPoint presentation with instructor notes. The program’s goal is to eliminate rollovers in the ready mixed concrete industry by illustrating causes and preventive measures a concrete delivery professional can take. Actual rollover incidents occurring on highway ramps, rural roads, job sites, extreme weather conditions, intersections and more are investigated, using cause and effect analysis. The instructor will be able to lead participants in methods used to avoid future rollovers. The presentation also summarizes a study, which for the first time, assigns actual speed parameters associated with ready mix truck rollovers. ($50 members, $200 non-members)

5. 2PCP – Pervious Concrete Pavement
Pervious concrete as a paving material has generated tremendous interest due to its ability to allow water to flow through itself to recharge groundwater and minimize storm water runoff. This introduction to pervious concrete pavements reviews its applications and engineering properties including environmental benefits, structural properties and durability. Both hydraulic and structural design of pervious concrete pavements are discussed, as well as construction techniques. ($15 members, $25 non-members)

6. 2P183 – Guide to Preparing Job Descriptions
The NRMCA Guide for preparing Ready Mixed Concrete job descriptions has been completely revised and is now in CD-ROM form (MS Word). It now includes more than 200 sample job descriptions submitted by some the leading concrete firms in the country. These job descriptions can be easily downloaded and customized for your company’s use. ($40 members, $160 non-members)

7. 2P179 – Review of Variables That Influence Measured Concrete Compressive Strength
This paper summarizes the many variables that can affect the measured compressive strength of concrete cylinders, including procedures for sampling, casting, initial curing, transporting, laboratory curing, capping and testing. Reprint from ASCE Journal of Materials in Civil Engineering from May 1991. ($35 members, $14 non-members)

8. 2PSD9 – Hand Signals for Mixer Drivers & Contractor Guides
7.5” x 9.75” Decal containing nine of the most common hand signals for Mixer Driver & Contractor Guides. ($4 members, $16 non-members)

9. 2PCPAS – Concrete Pavement Analyst Software
This parking area design and costing software has tremendous interest due to its ability to allow water to flow through itself to recharge groundwater and minimize storm water runoff. Updated for 2004, it also highlights driver duties, safety precautions, equipment inspection and maintenance procedures, and what the driver should do in case of an accident. This 64-page manual educates truck mixer drivers about concrete and customer relations. Completely updated for 2004, it also highlights driver duties, safety precautions, equipment inspection and maintenance procedures, and what the driver should do in case of an accident. This 64-page manual is easy to understand and contains common sense information every driver should know. ($10 members, $40 non-members); (20 or more copies $8 members, $32 non-members)

10. 2PSHTCD – Silica Hazard Training CD
This CD-ROM tells trainers and employers how to measure and control employee exposure to the hidden hazards of silica. Includes instructor notes. ($12 members, $48 non-members)
Instant Steam Generator
Designed specifically for heating water and aggregates, all with the one unit.

“Will not make aggregate MUSHY”

- Fuel savings up to 50%
- Low carbon monoxide levels
- Full bore steam in 15 seconds
- No stationary engineer required
- No chemical treatment of water

for More info
Call: 1-800-388-1339
or visit: www.steamengineering.ca
VehiCom Data Inc. Mission and Product Overview

- VehiCom Data Inc. is a designer and manufacturer of unique electronic signage designed to display truck numbers at concrete batch plants to facilitate the loading of trucks. The signs are also designed to operate connected to any computerized batch control panel and follow the job stacking screen automatically. On some sign systems manual stand-alone operation is also possible.

- VehiCom signs are unique in that emphasis is on reliability and readability. Signs are sealed against dust and dirt and utilize the latest in light-emitting diode technology (LED). Four different-sized digits are presently available, with fixed configurations and “design your own sign” flexibility.

- Automation of batch plant operations with significantly reduced loading times, error reduction, and vastly reduced radio usage, all result in a very fast payback for the user.

- Custom design is always a consideration, sometimes at no additional charge.

702.813.3474
P.O. Box 35106
Las Vegas, NV  89133-5106
www.vehicom.com

See us @ ConExpo Silver Lot # S-676 March 15-19/2005
CHUTE CLOSURE DEVICE
Shute Shutter® by Forfam Incorporated
1642 Las Trampas
Alamo, CA 94507-1824
Contact: Jim Bergantz, Director of Sales & Marketing
Email: sales@forfamin.com
Web Sites: www.shuteshutter.com or www.forfamin.com

Shute Shutter®, the fully automatic chute closure device, stops spills, concrete theft, windshied & damage claims, saves time & money & reduces insurance costs. Utilize Close & Go (trade mark) if washouts are not allowed.

CONCRETE PRODUCTS

Tarmac
A Titan America Business

Tarmac
P.O. Box 2016
Norfolk, VA 23501
Tel: (757) 858-6500 / Fax: (757) 855-2919
Website: www.tarmacamerica.com

Tarmac serves customers in Florida from more than 30 ready-mixed concrete plants throughout the state making us one of the top ready-mix producers in the U.S. Our mission is to be the preferred supplier of ready-mixed concrete in all our served markets. This goal is achieved by meeting our customers’ most important demand - a product of the highest quality supplied on schedule. With customers in both the public and private sectors of construction, Tarmac concrete can be found in projects ranging from heavily traveled highways and bridges, to downtown skyscrapers and backyard patios.

Titan America
1151 Azalea Garden Road
Norfolk, VA 23502
Tel: (757) 858-6473 / Fax: (757) 855-7707
Website: www.titanamerica.com

Titan America, one of the top producers of ready-mixed concrete in the United States, serves customers in Virginia from more than 15 ready-mix plants throughout the state. A complete Value Added Products line presents many options to ensure the right concrete for any project. With customers in both the public and private sectors of construction, Titan America concrete can be found in projects ranging from heavily traveled highways and bridges, to downtown skyscrapers and backyard patios.
NRMCA Celebrates a Diamond Anniversary with a new image.

Throughout 2005, NRMCA is celebrating a notable milestone... our Diamond Anniversary. Founded in 1930, NRMCA continues to be the leading industry advocate working to expand, improve and promote the ready mixed concrete industry through leadership, education and partnering... helping keep America strong. To celebrate our 75th Anniversary, we’re proud to introduce a new logo, projecting confident leadership as we accelerate into an exciting future.

Thanks to our Diamond Anniversary Sponsors, whose support allows NRMCA to shine a spotlight on this important occasion.
Looking for Testing Equipment?

Take a look in our catalog, where you’ll find the best in testing equipment for asphalt, including the latest innovations in testing procedures. From individual test equipment and supplies to a complete lab, we can get you the equipment you need, when you need it and at a great price. We maintain the largest inventory in the industry for fast shipments. Call for a free catalog.

1.800.544.7220

www.humboldtmfg.com • asphalt@humboldtmfg.com
Truth is, wire mesh simply doesn’t perform like fiber solutions from SI® Concrete Systems. With millions of fibers spreading through every cubic inch, SI products become an integral part of the concrete composite itself. This minimizes shrinkage and settlement in the crucial early stages of the concrete’s life—and sets the stage for unmatched long-term crack control, shatter resistance and overall toughness. Proven in virtually every concrete application imaginable, our products have been outperforming traditional reinforcement for more than 20 years. So isn’t it time you let the truth set you free?

For those who prefer performance to tradition.

FIBERMESH® | NOVOMESH® | NOVOCON® | FIBERCAST™ | ENDURO™

www.siconcretesystems.com/ad • 800-635-2308
Coast 2 Coast
Concrete Chipping
1-877-216-8116

Specializing in the clean-out of Ready Mix Trucks

Working hard to be the safest chipping company in the industry

www.c2c-chipping.com