Aggregate & Ready Mix Association of Minnesota

MNG49's satisfying revision process

With all the headlines about how the 2012 Minnesota legislative session will focus on making state government friendlier for business, you'd think they never got along. In fact, there are times when they work together quite well.

Take, for instance, the recent revision of the MNG49 water quality permit that went into effect November 2011. This Minnesota Pollution Control Agency (MPCA) permit was first written in 2006, specifically for companies with facilities that mine sand and gravel, limestone and granite, and produce hot mix asphalt. Their operations necessarily disturb land and move around, which create different erosion, groundwater and wash water management challenges than stationary facilities face.

MPCA permits expire every five years and as early as 2009, the staff there began talking about MNG49 and let the Aggregate and Ready Mix Association of Minnesota (ARM) know a change was being considered.

"The MPCA was considering moving to one industrial stormwater permit, and possibly not reissuing MNG49 once it expired," said Mark Panian, a principal at Wenck Associates, an engineering firm with a specialty in environmental permitting. "That concerned the industry because we knew the Multi-Sector Permit did not fit their type of industrial operations."

ARM, Minnesota Asphalt Pavement Association (MAPA), and the Associated General Contractors of Minnesota (AGC) formed a working group with the intention of not only making the case for the MNG49 permit, but including ready mix facilities, which operate similarly and often are located on aggregate sites. The group hired Panian to act as the point person for gathering information and coordinating a unified response to the MPCA.

"It was a unique process because we all shared in it financially," said Tim Worke of AGC. "Working cooperatively as an industry allowed us to be more effective in addressing our concerns with a clearer and more consistent voice."

Ken Coats, senior geologist at Aggregate Industries, served on the working group, which started meeting in the spring of 2011. He said his company and others gathered information about what other states were doing, which was then shared with the MPCA. According to Coats, the MPCA was doing its homework as well.

"We had a new permit writer, Elise Doucette, from the PCA. She was open to learning about the industry and did a couple of site visits with her team," said Coats. "We only had three or four meetings and people came to the table knowing what the others' issues were."

From the MPCA side, Doucette said that she appreciated the candor and coordinated information from the industry working group to help her understand their operations.

"Ready mix was brought up early to add to MNG49 as a related sector in terms of how the operations happen from raw materials," said Doucette. "We recognized that certain ready mix activities did fit better with MNG49."

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PCA's sustainability talking points available

The Concrete Sustainability Hub (CSH) is examining the life cycle of concrete and concrete structures. It has released articles and reports but as with any technical research, the information has so far been tough for industry professionals to understand and apply.

Fortunately, the Portland Cement Association, one of the sponsors of CSH, has summarized the research using talking points. You'll find them on a special website: www.think-harder.org.

Check out the talking points for the life-cycle assessment of buildings and also, of paving.

ARM Member Case Study

Strata Corporation earns AASHTO Certification

Background

The senior managers of Strata Corporation decided in 1996 to have one of its labs accredited in the professional testing of asphalt, aggregate and concrete by AASHTO. While it is rare for a construction company to seek accreditation, Strata did so for two primary reasons: To improve the quality of the company's work and testing lab, and to differentiate the company and land more types of work. Another benefit was to rely less on outside testing companies to ensure the quality of the material supplied to their jobs.

Process

The accreditation process is extremely rigorous and time-consuming. Strata testing personnel were sent enormous binders of material and samples which they worked with and tested, category by category. For instance, they were sent aggregate samples to test and report on. They then heard back from AAP as to their accuracy on each sample; if the accuracy rated two or less on a five point scale for a sample, they had to explain the testing process and then get coaching about how to improve the process. This went on for months. AAP representatives also made a site visit to observe Strata's testing procedures.

Strata completed the aggregate portion in June of 2008, the concrete portion in 2010, and finally, the asphalt category in February of 2011. Strata Corporation's Laboratory has been granted accredited testing status for 62 separate Aggregate, Concrete, and Asphalt procedures.

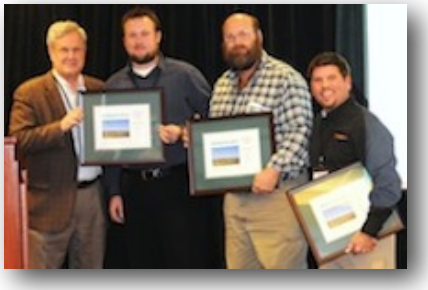
The AASHTO Accreditation process was a tremendously challenging learning opportunity and the learning never ends. The company continues to receive samples to test and return for evaluation every quarter, and every 18 months, an AASHTO inspector comes to our lab to once again observe our procedures.

Result

Strata Corporation has significantly increased its quality control operations, become less reliant on outside testing companies, and become more marketable to a wider range of clients. Strata's reputation has leapt onto a national scale as a result of the accreditation, too. Strata Corporation is the only construction-based company in a three-state area which operates an accredited laboratory by AMRL "AASHTO Materials Reference Laboratory."

For more information about this project or Strata's testing lab, contact Dale Johnson, quality control manager at dale.johnson@stratacorporation.com, 701-739-1534.

Images from 2011 ARM Convention



Left to right: Fred Corrigan, ARM; Chris Lehman and Mark Ford, Ryan Companies US, Inc., and Ron Skaja, Knife River.

Left to right: Todd Johnson, Lafarge Cement; Tim Becken, Cemstone, and Dave Meyer, Lafarge Cement.

Fred Corrigan, ARM, and Mark Bintzler, Aggregate Industries.

Q&A

Brock White Company LLC

This company's Hard-Cem Integral Concrete Hardener has been incorporated in more than 40 million square feet of concrete in North America. We talked to Dennis Ehlert to learn more about Hard-Cem's abrasion resistance properties, applications and LEED eligibility.

What is Hard-Cem Integral Concrete Hardener?	Hard-Cem is a fine powder which handles similar to cement and is added during ready mix batching. It is the only integral concrete hardener that is fully compatible with air-entrained concrete, allowing for internal and external applications. Hard-Cem is a chemically-inert functional filler and is completely compatible with admixtures, scm's and sealers and can be used in any mix design.
Where would I use Hard-Cem?	From warehouse floors to pipes to concrete roads and bridges, Hard-Cem has been used in applications requiring superior hardness, abrasion/erosion resistance, and improved durability. Standard ASTM abrasion tests have shown that this product reduces the mass loss associated with abrasion by up to 66% compared with a non-hardened concrete control sample.
What are the benefits of using Hard-Cem?	The owner benefits from extended infrastructure lifespan, potential LEED credits, a cleaner and safer worksite, and cost savings. In fact, Hard-Cem is a LEED- eligible material and has been used in LEED Gold projects. Ready mix producers benefit by having a value-added material in their product tool box with easy incorporation of standard dosages for all mix designs. It's fully compatibility with air-entrained concrete, and with all admixtures. For more information, contact Darrick Nystrom at 651-289-1274 dnystro@brockwhite.com

Q&A

McNeilus Truck & Manufacturing

McNeilus has invested millions of dollars to help the concrete industry get high-quality mixers that help the bottom line and the environment. We talked to Matt Peterson about the company's Ngen initiative involving compressed natural gas.

Why did McNeilus develop trucks that use compressed natural gas (CNG)?	McNeilus is an innovative company that truly cares about the environment. The CNG products are part of our larger Ngen Initiatives, which promote alternative fuels, fuel-saving innovations and composite products. Our CNG mixers are a more permanent fix than upgrading diesel engines. They meet the EPA's 2010 heavy-duty engine emissions standards for nitrogen oxides and particulate matter.
Is CNG a practical alternative?	Yes, because CNG does not need to be trucked into your facility, it is clean American fuel, and reduces our dependence on foreign oil. When compared to their diesel engine counterparts, CNG mixers offer lower fuel costs, reduced noise pollution and run six times cleaner than our diesel-powered trucks.
Does CNG have as much energy per diesel-gallon equivalent?	No. It's approximately seven to 10 percent less depending on the quality of the natural gas.
Will I have enough capacity to run all day?	Yes, depending on the configuration of the tank and allowable mounting space and daily fuel required. The national average of diesel consumption per day on a ready mix truck is approximately 45 gallons. To learn more, contact Matt Peterson, 507-993-2707, mattpeterson@mcneilusco.com

MNG49's satisfying revision process (continued)

Another unique aspect of aggregate, asphalt and ready mix facilities is that some of them are inactive for long periods of time, which the MNG49 permit factors in. The MPCA's Multi-Sector Permit was onerous for owners of dormant facilities because no staff is there.

"With that permit, if you have 10 locations, you have to monitor rain water four times per location per year, all within a half hour of the rainfall," said John Bornhoft, CEO of Buffalo Ridge Concrete. "You can't do it and comply."

Further, companies like Buffalo Ridge Concrete need only apply for one MNG49 permit to cover all their sites, a considerable savings of money and compliance time.

Finally, MNG49 allows for discharging waste water on the site as long as it stays on the site, and covers dewatering activities unique to mining operations.

According to all involved, the MNG49 permit revision process was successful.

"The process worked really well and helped make a very workable permit for our industries and the MPCA," according to Jill Thomas, associate director of MAPA. "It was a good partnership."

Doucette of the MPCA added, "It made sense for us to reduce permit burdening with the revised MNG49."

MNG49 workshop Feb. 23 in Maple Plain

Current permit holders and those planning to switch should mark their calendars for this ARM workshop set for 9:30 a.m. to 1:30 p.m. at the Wenck Associates office. Here are some of the topics that will be covered:

- Coverage and application requirements.
- Changes from the old MNG49.
- Non-stormwater discharges.
- Inspections and more!

The cost is $85 and you can register online at http://chooseconcreteworkshop.eventbrite.com/.

AGGREGATE & READY MIX
ASSOCIATION OF MINNESOTA