

Quality Matters

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Holcim's Ste. Genevieve Missouri Plant Approval



The Physical Evaluations Unit of the Materials and Testing Section recently approved one of the world's largest cement-producing facilities of AASHTO/ASTM Type I / II low alkali Portland cement for DOTD use. The Ste. Genevieve Plant has

the ability to produce 4 million metric tons of cement each year while reducing carbon dioxide emissions 10 to 15%. The plant has the largest single kiln line in operation in the world. The Ste Genevieve plant is located on a 3,900 acre site with 200 acres being quarried at any given time for some of its raw materials.

The Ste. Genevieve Plant has one the most advanced fully automated lab testing systems in the nation. The Robolab system includes sam-

pling, transport to lab, sample preparation of pressed tablets, analysis, and mix control. Chemical analysis is conducted with an Panalytical XRF with back up for the main oxide analysis; the Panalytical XRD is used for fast free-lime and phase analysis. The plant uses a Sempatec for particle size analysis. Vicat Testing is conducted using automated vicat apparatus. The plant also uses automated compression testing for determining compressive strength.

The cement distribution system for the Ste. Genevieve Plant is a state of the art facility for loading and shipping cement. Cement is transported by barge rail or truck transports. Barges can be loaded

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Controlling Stormwater Runoff at the LA DOTD



The water that results from precipitation events—whether rain, snow melt or some other form—is known as stormwater. Stormwater runoff occurs when precipitation flows over land or impervious surfaces and does not infiltrate into the soil.

Water that does not seep into the ground is collected and transported in natural or manmade conveyance systems. Either natural conveyance systems, such as ditches or swales, or a manmade underground system of catch basins and pipes commonly referred to as a storm sewer system, can discharge stormwater runoff into nearby lakes and streams.

So, why is stormwater runoff a concern? As stormwater runoff continues to flow, it accumulates pollutants such as sediment and debris.

Unlike many other process waters, stormwater runoff does not have a mechanism for treatment. In short, the untreated polluted water is directly deposited into surface waters.

The Clean Water Act (CWA) is the cornerstone of surface water quality protection in the United States. The CWA was passed in 1972 with the fundamental objective of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters. However it was not until the late 1980s that stormwater runoff was considered a significant contributor to the degradation of the quality of receiving waters. To combat water quality issues, the CWA prohibits the discharge of any pollutant to the

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SiteManager Materials Update



The training phase has commenced for the implementation of SiteManager 3.9b Materials with the Laboratory Information Management System (LIMS). LIMS is the latest enhancement to SiteManager. The LIMS will provide our laboratories and field personnel an excellent tool for tracking samples and test results. Laboratory and construction personnel will begin using SiteManager Materials with LIMS to create and test samples shortly after they are trained. The first training session kicked off at TTEC with the training of LTRC's laboratory personnel on October 19, 2009. The training schedule is shown in the chart below.

District/Section	Dates
LTRC/Const Fab Insp	October 19-20, 2009
District Training Coordinators	October 22 – 23, 2009
Materials Lab/Const Fab Insp	October 26 – 30, 2009 (2 classes)
District 61	November 3 – 17, 2009 (5 classes)
District 62	November 19 – December 8, 2009 (4 classes)
District 02	December 10, 2009 – January 7, 2010 (5 classes)
District 58	January 11 – 22, 2010 (4 classes)
District 05	January 25 – February 5, 2010 (5 classes)
District 04	February 8 – 23, 2010 (5 classes)
District 08	February 25 – March 11, 2010 (5 classes)
District 07	March 15 – 25, 2010 (4 classes)
District 03	March 29 – April 13, 2010 (5 classes)
Administration and FHWA	To Be Determined

The Sampling and Testing Requirements Team commenced their full-time 6-month assignment to the SiteManager Materials Implementation Project on October 5, 2009. The team consists of Jerry Begnaud (Dist. 03 Construction), Jamie Blanton (Dist. 58 Lab), Clay Gottschalk (Dist. 62 Lab), and Tim Thomas (Dist. 61 Construction). The team has been tasked with making the materials to pay item associations and material sampling unit to pay item unit conversions. This will allow SiteManager to create a contract sampling plan and complete the 2059 process electronically. I would like to thank Kevin Adams (Dist. 02 Construction) for his help in making the material-to-material user-to-product group, material-to-test template (field and district), and test template-to-specification (field and district) associations for us. 

Beth Roberts

UPDATE QPL 71 (Adopting NTPEP Work Plan)

The Materials & Testing Section (MatLab) has been looking for ways to improve the efficiency and effectiveness to accomplish its mission in the area of Quality Assurance and Quality Control for materials, especially steel mill source approval related to inspection and testing/evaluation.

MatLab and Mike Ricca, representing the Construction Section, agree to adopt the National Transportation Product Evaluation Program (NTPEP) Work Plan and update our QPL 71, Qualifications Procedure for Reinforcing Steel Mills.

The primary goals of the NTPEP program are to provide cost-effective evaluations for the state DOTs by eliminating duplication of testing and auditing by the state DOT's and duplication of effort by the manufacturers that provide products for purposes of product prequalification.

LA DOTD will require producing steel mills to comply with the requirements of AASHTO PP 45 and NTPEP Work Plan for Reinforcing Steel Bar. Mills presently on QPL 71 will have time to comply during a transition period which will expire on January 1, 2012. Mills not in compliance at that time will be removed from the QPL 71.

NTPEP Work Plan for Reinforcing Steel Bar will reduce our inspection and testing time so we can focus more on project samples. This has significant time and money savings for the evaluation and approval of producing steel mills. 

Khiet Ngo

Ste. Genevieve

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at twin loading stations at the rate of 1,500 tons per hour while rail cars can be loaded at 500 tons per hour. The plant also has twin truck loading bays with manual and future self service loading. More than 75% of the plant's materials and products will be shipped by river.

In today's highway construction market, the availability of materials such as cement is critical for construction of roads and bridges to be completed in a timely manner. The Ste. Genevieve plant will provide an additional source of cement for Louisiana and many other Southern states. This source also will reduce our dependence on foreign sources of cement. This plant will supply DOTD projects such as Audubon Bridge, I-10, and US 61, among others. 

Tim Perault

Stormwater Runoff *(continued from page 1)*

waters of the United States unless authorized by the National Pollutant Discharge Elimination System (NPDES). The Environmental Protection Agency has granted most states authorization to implement the NPDES Stormwater Program and administer their own stormwater permit.

To this end, the Louisiana Department of Environmental Quality (LDEQ) has established a permitting system known as the Louisiana Pollutant Discharge Elimination System (LPDES). The LPDES mirrors the requirements established by the federal NPDES program and is designed to limit the amount of harmful pollutants into surface waters. Louisiana's water quality regulations require operators to obtain a permit to discharge pollutants from any point source.

The LPDES Stormwater Program regulates stormwater discharges from three potential sources: designated municipal separate storm sewer systems (MS4s), construction activities that disturb more than one acre, and industrial operations. Operators of these sources are required to obtain an LPDES permit prior to discharging. In response to LDEQ regulation, DOTD has established a comprehensive stormwater program to address each of the three potential sources of stormwater pollution. However, our focus is on the department's efforts to control discharges from its industrial operations.

LDEQ regulations recognize eleven (11) categories of industrial activity that are required to obtain permit coverage. DOTD is categorized as a transportation facility. Common activities, such as material handling or storage and equipment maintenance at DOTD maintenance and storage facilities require them to be permitted. DOTD submitted a notice of intent (NOI) for each of its eligible facilities statewide and has been authorized to discharge stormwater by the LDEQ. DOTD facilities are covered by the LPDES Multi-Sector General Permit (MSGP) for Storm Water Discharges Associated with Indus-

trial Activity. Currently, the department has a total of 88 such permits.

Per permit requirements, each of the department's facilities has developed a written stormwater pollution prevention plan (SWPPP). The SWPPP is a written assessment of potential sources of pollutants in stormwater runoff and control measures that will be implemented at the facility to minimize the discharge of these pollutants in runoff from the site. These control measures include site-specific best management practices (BMPs), maintenance plans, inspections, employee training, and reporting. The procedures detailed in the SWPPP are implemented by the facility and updated as necessary.

DOTD uses a variety of BMP options to eliminate or minimize the presence of pollutants in stormwater discharges. Combinations of BMPs are used to address stormwater runoff at the facilities. The primary approach employed by the department to mitigate potential pollution is through the use of pollution prevention BMPs. These are designed to prevent or minimize pollutants from entering stormwater runoff. Common prevention BMPs include good housekeeping practices, spill response plans, containment of pollutant sources, and employee training. The secondary approach is to implement treatment BMPs, which are engineered structures, intended to treat stormwater runoff and/or reduce the velocity of runoff to aid in infiltration. Examples of treatment BMPs being used include oil and grease separators and vegetation.

The LPDES MSGP also requires collection of visual and analytical monitoring data to determine the effectiveness of implemented BMPs. LDEQ has designated calendar years 2007 and 2009 (Jan. 1 – Dec. 31) as benchmark monitoring years 2 and 4, respectively. During each benchmark monitoring year, the department is required to collect samples from each of its 220 outfalls every quarter. At a minimum, test parameters for collected samples include Total

Organic Carbon (TOC), Total Suspended Solids (TSS), and Oil and Grease (O&G). Insufficient data was collected during the 2007 benchmark year to determine if improvements were needed. Presently the department is in its final quarter for the 2009 benchmark year. Though the data is being compiled and has yet to be completely analyzed, preliminary results indicate that improvements have been made at each of DOTD's monitored facilities. A full inquiry will be done at the completion of this year when all data has been assembled.

Erosion, habitat disruption, and restrictions on recreational use of water bodies have all been attributed to the increased pollution in stormwater runoff. Obviously the consequences of stormwater runoff on Louisiana water bodies have been significant and there is still much to be accomplished. However, with the efforts of entities like DOTD and ordinary people, changes are being made. For more information regarding what you as an individual can do to assist in improving Louisiana's surface waters, please visit our website at [http://www.dotd.la.gov/highways/construction/lab/ms4/home.asp?page=bmp\\$](http://www.dotd.la.gov/highways/construction/lab/ms4/home.asp?page=bmp$). 

Alberetta Batiste

MatLab Updates

- **New Products Evaluation Committee – Field testing for new products now must include a 3-year warranty.**
- **HMAC Lab Equipment Manual – An updated version of the Hot Mix Asphaltic Concrete Lab Equipment Manual has been placed on the Matlab website.**
- **AWARDS – MatLab retiree, Henry Lacinak, received an award from AASHTO at the 2009 AASHTO Subcommittee on Materials meeting which was held this year in Anchorage, Alaska, in recognition and sincere appreciation for Henry's contributions to AASHTO. He was Vice Chair of Technical Section 4c and a member of Technical Sections 4d, 2b, 3a, 4c, and 4d.**
- **BUILDING CONSTRUCTION – WE ARE BACK INTO THE TWO-STORY BUILDING! Thanks for your patience. We are better than ever and ready to test.**
- **AGGREGATES – We have another approved source for friction rating 1 aggregate! Travis Creek made the cut with a Polish Value of greater than 37.**
- **RETIREMENTS – Otis Petterson, Lab Engineer in District 05 – best wishes!**
- **LAB ENGINEER CHANGES - Amy Giddens, Acting Lab Engineer in District 05. Matt Zeicker, Construction Coordinator in District 05. Kim Garlington, Construction Coordinator in District 08.**

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MatLab Updates

- QPL – Created a new QPL for the Metal Beam for Guard Rail, (QPL 81) and created a new corresponding Certificate of Compliance form. Certificate will be posted on-line under “Materials,” “Forms and Worksheets,” “Stock Number Order.”
- Created a new QPL for 12” LED Traffic Signal Lamp Units, (QPL 82). Traffic Operations is handling the evaluations.
- Please check the individual QPLs for official changes. Here are a few changes that are notable:
 - QPL 63 – Ecotherm lead-free yellow now has full approval. The interim status is removed.
 - QPL 41 – Blacklidge Asphalt Emulsion CRS-2P has been removed from the QPL.
- Environmental Evaluations Unit – Plans are under way to develop a wash water discharge permit for DOTD Bridge cleaning construction and maintenance projects across the state. The EEU is working with the LDEQ in hopes to classify the permit as a “General Permit,” which would significantly reduce the time factor in the project development process.
- Certificates – There is no more warehouse stock for certificates. Now please print and copy.
- Environmental Evaluations Unit – Hazardous Communications Program is under way. The Matlab Environmental Section is offering support and training for this program.

District	Location	Construction Coordinator	Lab Engineer
02	Bridge City	Byron Hassenboehler	
03	Lafayette		Mike Boudreaux
04	Bossier City		Jay Collins
05	Monroe	Matthew Ziecker	Amy Giddens (acting)
58	Chase	Neal West	Jamie Blanton
61	Baton Rouge		Mark Kelley
62	Hammond		Clay Gottschalk
07	Lake Charles	Darrell Deville	
08	Alexandria	Kim Garlington	

Quality Matters

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