

- ▶ PROFILER CERTIFICATION.....1
- ▶ RECOGNITION FROM ASTM1
- ▶ QPL UPDATE.....2
- ▶ SITEMANAGER UPDATE.....3
- ▶ BRAINSTORMING AND PROBLEM-SOLVING.....4

Quality matters

A PUBLICATION OF THE LADOTD MATERIALS & TESTING SECTION

Proactively Meeting Profiler Certification Goals

When spring approaches south Louisiana, the change in the weather is a wakeup call to the Materials and Testing Section that the annual Profiler Certification “Rodeo” is just around the corner. Going into this year’s program, the staff decided there was room for improvement in the profiler certification process.

In order to provide a more time-efficient profiler certification turnaround, the Testing Equipment Unit performed an informal process analysis to determine what was done well in the past year’s certification process and what could have been done better.

Traditionally, because of geographical and fiscal limitations, test path sites were remotely located, making it hard to access the computer equipment which executes profiler data analysis. Additional delays were caused when contractors’ Profiler Units or technicians were not adequately prepared to be certified.

In order to reduce the need to delay certifications, the MatLab turned one of its cargo vans into a mobile office, equipping it with a laptop computer, printer, workstation, and an inverter. Nearly all of these devices were readily

available, including the laptop computer. This conversion allowed immediate resolution of some of the problems encountered in the field.

The other major procedural change was in the notification of the certification requirements. Contractors were told ahead of time to be prepared; the certification test day is not the time to make repairs or correct operator problems. If an operator or a unit is not prepared to perform his certification demonstration in a timely manner, then his attempt at certification will be terminated, and he will have to return in 30 days for retesting.

Operators who are prepared and whose profilers meet specifications can be provided certification documentation in a single day.

In the certification schedule notification letter, recommendations and helpful hints were provided to prevent problems and to aid in preparation for the Profiler Certification. This single change to procedure was amazingly effective, resulting in all operators and profiler units being prepared upon their turns, a welcome improvement over previous years.



Contd. on page 4

Materials Lab Receives Recognition From ASTM

The Traffic Control Products Laboratory has received a certificate of recognition from ASTM as one of nine laboratories from across the country participating in the Inter-laboratory Study to Establish Precision Statements for ASTM D4960-06, Evaluation of Color for Thermoplastic Traffic Marking Materials. The results of testing performed at the participating laboratories were published in ASTM Research Report on January 16, 2007, and will be included as part of the Precision statement in the ASTM D4960 specification.

This is not the first time the Traffic Control Products Lab has participated in this type of study. The laboratory also participated and acted as the host for conducting the Inter-laboratory Study for establishing the Precision statement for the Longitudinal Flexural Strength test for ASTM D4280 for Raised Retroreflective Pavement Markers. The Materials Laboratory developed this test to address the issue of raised pavement markers failing in flexure on asphaltic concrete roadways.

Contd. on page 4

This QPL updates includes April's and July's revisions

Qualified Products Lists Updates

This installment of the Qualified Product Lists updates includes two revisions: April and July 2007.

A. April 2007 Revision

1. New sources:

- QPL 07 – Portland Cement, Portland-Pozzolan Cement, and Portland Blast-Furnace Slag Cement – *Cemex, Tamuin Plant* (Mexico)
- QPL 40 – Concrete Anchor Systems – *Sika Corporation* (Lyndhurst, NJ)
- QPL 52 – Adhesive Anchor Systems for Deformed Tie Bars and Dowel Bars – *Sika Corporation* (Lyndhurst, NJ)
- QPL 75 – High Performance Cold Mix for Patching Materials – *Seaboard Asphalt Products Co.*
- QPL 78 – Zinc Paint Systems for New Structural Steel and 100% Bare Existing Structural Steel – *ICI Devco Coatings* (Strongsville, OH)

2. Update (appear in **bold print**):

- QPL 72 – Erosion Control Products – 7209, Western Excelsior Corp., Product name: Excel R-1 **Regular**, Type A, C, D, E, F.

3. Deletion:

- **7603** – *LaFarge Road Marking* – Ennis Paint, Inc. acquired LaFarge. The new source code is **7605**.

B. July 2007 Revision

1. New sources:

- QPL 02 – Aggregates – *St. Helena Sand & Gravel* (AX78, Grangeville, LA); *Memphis Stone & Gravel Co. (Anderson Plant)* (ABAC; Nesbit, MS); *Memphis Stone & Gravel Co. (Perry Plant)* (ABAD; Senatobia, MS); *Duffield Gravel Co.* – *New Hope Quarry and Gum Log Quarry* (ABAE and ABAF; respectively, Russellville, AR); *Mineral Technology Systems* (ABAG; Kingston, Jamaica W.I.); *Cumberland River Resources* (ABAI; Salem, KY)
- QPL 07 – Portland Cement, Portland-Pozzolan Cement, and Portland Blast-Furnace Slag Cement – *Lafarge Corporation* (07AH; Fredonia, KS)
- QPL 13 – Reflective Sheeting – *3M Company* (13CK to 13CO; St. Paul, MN)
- QPL 16 – Barricade Warning Lights – *Interplex Solar AER, LLC* (1684 to 1686; East Haven, CT)
- QPL 29 – Form Release Agents for Portland Cement Concrete Products – *Omni Specialty Packaging* (2965; Shreveport, LA)

- QPL 32 – Epoxy Resin Systems for Concrete – *Hilti* (32EC; Tulsa, OK); *Pilgrim Permocoat, Inc.* (32ED; Tampa, FL)
- QPL 58 – Admixtures for Portland Cement Concrete – *Hunt Process Corp. – Southern* (58ES and 58ET; Ridgeland, MS)
- QPL 61 – Geotextile Fabrics – *Assurene Corp.* (61CN; Smyrna, GA)
- QPL 66 – Plastic Culvert Pipe and Joint Systems – *Hancor* (6612 and 6613; Olympia, WA)
- QPL 80 – Microsilica – *Norchem, Inc.* (8002; BASF Construction Chemicals, Inc.- Supplier; Ft. Pierce, FL) and (8003; Sika Corporation – Supplier; Ft. Pierce, FL)

2. Updates (appear in **bold print**):

- QPL 02 – Aggregates – AB92, **Noren Properties Quarry #1**
- QPL 13 – Reflective Sheeting – Add new Category (A) Permanent Sign Sheeting sub-heading – **ASTM D4956 Type X (Modified) (White, Yellow, and Red)**; add "Fluorescent Orange" to subheading ASTM D4956 – Type X under Category (B) Sign Sheeting for Temporary Signs, Barricades, and Channelizing Devices; add new **Category (E) Fluorescent Pink Sheeting for Incident Management**; and update the specification reference to reflect new specifications, **2006** DOTD Standard Specifications and Special Provisions, Subsection 1015.05.
- QPL 36 – Traffic Paint – Reference: **2006** DOTD Standard Specifications, Subsection 1015.12 (Metric/English)
- QPL 50 – Fly Ash – 5013 and 5023, Mineral Resource Technologies, Inc., **2700 Research Forest Drive, Suite 150, The Woodlands, TX 77381-4251**.
- QPL 61 – Geotextile Fabrics – **6169**, Carthage Mills, product name FX-70CF
- QPL 80 – Microsilica – 8001, **Source: Norchem, Inc.** (985 Seaway Drive; Ft. Pierce, FL 34949); **Supplier: W.R. Grace & Company** (62 Whittemore Avenue; Cambridge, MA 02140)

3. Deletions:

- **0795** – Siam Cement Co., LTD – per company's request
- **07AC** – Asia Cement Corporation – per company's request
- **07AG** – Cemex Tamuin Plant – per company's request
- Modification of QPL 13, Reflective Sheeting, to reflect current specifications:



Qualified Products Updates, contd.

- a. Remove all Type I and Type II materials (1305-1310, 1312-1317, 1331-1333, 1335-1339, 1341-1350, 1352-1357, 1359-1364, 1369-1371, 1392, 1393, 13AB-13AF, 13AV)
- b. Remove inactive sources (products) – 13BO – 13BT – Avery Dennison replaced with 13CD, 13CE, 13CG-13CJ (product name changes).
- c. Remove Category (E) Sign Sheeting for Maintenance Use Only and its sources (1311, 1318, 1334, 1340, 1351, and 1358)
- Remove products no longer available
 - a. 3628 – 3631, AExcel Corporation
 - b. 3620 – 3621 and 3642 – 3643, Centerline Industries, Inc.
 - c. 3635, Global Industrial Coatings
 - d. 3624 – 3625 and 3632 – 3633, Linear Dynamics, Inc.
 - e. 3626 – 3627, Dixie Paint and Coatings
- Hanson Pipe & Products, Inc. changed its name to Hanson Pipe & Precast; therefore source codes 7713, 7701 -7704, 7708, 7709, 7711, 7717, and 7718 were deleted and replaced with source codes 7721 – 7730.

Implementation of SiteManager-Materials Update

Implementation of SiteManager – Materials (SMM) is in full swing. Beth Roberts, P.E., SMM Project Manager, reports that, although the strong progress shown initially has slowed somewhat, some teams are making excellent progress. Overall implementation is at approximately 30 percent. The Mix Designs Group has completed almost three-fourths of their task, and the communications group about one-half.

The Training and Support Group has decided that SMM Training will be vastly different from the training methods used prior to the implementation of SiteManager. Each District Training Coordinator will receive intensive training in all of the facets of SMM. (Several of them are very heavily involved in the implementation teams already.)

Classes for each of the different levels (Inspector, Lab Technician, P.E., Matlab technician, etc.) will be held at the Districts so that the wide variety of questions that will be asked can be addressed on a local, personal level. Most of these sessions will be taught by a team of the DTC and subject matter experts (SME), someone from the district lab and someone from the district construction office. This method will also allow new hires to be trained locally, and when upgrades of the system are made in the future, implementation for those will be taught at the Districts as well.

Another group that has been working very hard and making progress is the Test Templates committee. This group has the daunting task of taking EVERY worksheet and form used in the field, District Labs, and the Materials and Testing Section and building an electronic version of it in SMM.

Think about it: every bolt and washer, fence post, fine aggregate for MSE wall backfill... Almost 500 different templates have been identified for development. J.R. Connors, on-site technical representative for Info Tech, Inc., has spearheaded this daunting effort. His strong background in materials testing has given him great insight into the needs of a laboratory documentation process.

Another identified area needing to be addressed is our pay items. The current system of assigning special pay items (S-Items) per contract can not be handled by the materials end of SiteManager. Members of the Contracts & Specifications staff, with help from field personnel, are looking at current pay items and are making changes to item numbers and the way pay items are obtained.

All teams / committees are working hard to maintain momentum. Several committee chairpersons have reported that they and their committee members are finding it more difficult to spend the time necessary to properly and effectively perform the tasks needed to complete their assigned phase(s) of this project. Day-to-day assignments and duties have been taking precedence over SMM commitments, which is understandable. But the importance and time-sensitive nature of the implementation of this amazing system must be recognized as well. The time spent getting it right **the first time** will pay large dividends when the system is fully implemented some time in 2008. Therefore, please allow subordinates on one or more of these teams to spend the time they need to get the job done, and more importantly, get it done correctly!

The time spent getting it right the first time will pay large dividends when the system is fully implemented



BRAINSTORMING AND PROBLEM-SOLVING TOGETHER

Two to three times yearly, representatives from all nine districts meet to discuss current problems with representatives from the FHWA, LTRC, and the Materials and Testing Lab. The primary purposes of the meeting are to review sampling and testing issues and to make plans for upcoming changes in specifications or construction practices.

The discussion often covers a variety of topics including training, SiteManager, materials, testing equipment, and several different materials issues. The following are among those recently discussed:

- Training: Changes needing to be made to the Structured Training Program for the District Laboratory Personnel. Some of the current requirements may not reflect current practices, revised test procedures using new, state of the art equipment, or materials which are no longer used in typical highway construction.
- Update/summary on the progress of the implementation of the Materials Management portion of SiteManager. Most of the District Lab Engineers are actively involved with one or more of the teams working to complete the multitude of tasks involved in getting a system as complex and comprehensive as SiteManager—Materials set up and running. The DLE's input and experience has proven to be very important in establishing a useful and effective system. Implementation is holding close to the schedule, but continued emphasis on the importance and priority of the work these teams are doing is critical to the timelines for meeting the goals and deadlines established.
- HMAC Job Mix Formula (JMF) and validation. One of the Dis-

tricts had one of its hot mix plants change its source of the liquid asphalt in the middle of the project. The contractor then requested that validation of the new JMF not be required. After reviewing the existing specifications and the new "Blue Book," it was decided that in this case, a new job mix must be submitted, but that if in the opinion of the Lab Engineer the properties of the liquid asphalt from the "new" source were basically the same as the original source, then validation was not required.

- Problem with the verification testing of aggregates for Types B & D portland cement concrete (PCC) pavement. A concrete supplier's aggregate stockpile had failed the verification testing by the District Lab on the # 4 sieve, so the stockpile was re-sampled in accordance with the specifications. The results of the re-sample showed that the material retained on the #4 sieve was passing, but now the #16 sieve was out of tolerance. During the ensuing discussion, it became evident that while most districts have occasional problems with verification results, overall, the gradations on PCC pavements have significantly improved since the implementation of the new specifications. It was recommended that if a PCC plant's gradation consistently failed verification tests and the plant manager resisted making adjustments to the process, then the District Lab Engineer should direct the plant to use the District Lab's gradation results to calculate their size distribution or be faced with having operations halted.

ASTM contd from page 1

Participation in these types of studies is voluntary, but it is important to have laboratories that have good quality

assurance programs to ensure the validity of the data. The precision statements published in the specification allow a laboratory to determine if the results obtained during standard testing are within an acceptable tolerance. The precision is the allowable difference between tests on a single material within a single laboratory (intra-laboratory precision) and between multiple laboratories (inter-laboratory precision). Failure to fall within the precision limits of the test method gives the technician a chance to examine his or her testing routine for possible errors. Essentially, developing the precision statement is the development of the quality assurance program for a particular test method. We are honored to have the opportunity to participate in these studies.

Profiler contd from page 1

While these changes may not seem earth-shattering, they have improved the MatLab's ability to provide customers with a certification program that can be accomplished in a timely manner. By being proactive in looking at improving the program, the MatLab has eliminated wasted time from this process, in part, by simply informing

Quality Matters

Contributing Writers

- Luanna Cambas**
Materials Engineer Admn
- Richie Charoenpap**
Engineer 5
- Cassandra Collins**
Engineer Technician 4
- Jason Davis**
Engineer 5
- Joubert Harris**
Environmental Program Mgr
- Beth Roberts**
Engineer 6 DCL
- Bert Wintz**
Field Quality Assurance Admn
- Lodrick Price**
Engineering Technician DCL



Editorial Staff

- Sher Creel (LTRC)**
Executive Editor / Designer
- Alainna Giacone, (LTRC)**
Editor / Designer
- Nick Champion (LTRC)**
Photographer

Quality Matters is a publication of the Materials and Testing Section of the Louisiana Department of Transportation and Development. For additional information on material included in this newsletter, contact the main information number of the Materials Lab, 225-248-4131.

Quality Matters was published by the staff of the Louisiana Transportation Research Center, 4101 Gourrier Ave., Baton Rouge, LA 70808. 225-767-9150.