Attendees:

Katheryn Malusky – AASHTO NTPEP
Tony Allen – WSDOT (TC Chairman)
Ed Hughes – ILDOT (TC member)
Jason Davis – LADOT (TC member)
Pete Kemp – WIDOT (TC member)
Stacey Lowe – KSDOT (TC member)
Dan Sajedi – MDDOT (TC member)
Steve Thomas – ARDOT (TC member)
Tom Burnett - NYDOT
Brian Whitaker – Fiberweb
Davis Taylor – Thrace-Link
Andrew Aho – GMA

Record of Discussions:

Need for a New Geosynthetics Committee Vice Chairman:

Tony Allen began the meeting by mentioning that Jim Curtis (NYDOT) will need to step down as the TC vice chairman due to changing workload issues. Tony then asked the committee members to consider becoming vice-chairman of this TC. Key roles of the vice-chair include providing back-up in leading meetings or conference calls when the chairman is not available for some reason, and assisting the TC chair in providing reviews test reports, audit reports, and other documents or data produced through this TC. NYDOT will still make the arrangements for sampling and testing of geotextiles evaluated in this program, until such time that the audit process is fully implemented, at which point the auditor will make the arrangements for sampling and testing. Tony asked each committee member to consider this need and to let him know if willing to consider this in the next few weeks.

Survey responses on the GTX audit program (product marking options, GAI accreditation issue) – possible next steps:

Tony started this portion of the meeting by mentioning that some of the states responding misunderstood the product marking question (first question in the survey sent to the states). The survey questions were as follows:

“Question #1. Regarding the marking of geotextiles for the NTPEP geotextile audit program, the GMA (Geosynthetics Materials Association) would like NTPEP to consider the following option:
a) Permanently mark the edge of the geotextile roll with the manufacturer name or code number every 5 to 10 m (suggested that up to 10 code numbers be given to a manufacturer to be used at random – the state inspectors would need to have access to the list of code numbers for each manufacturer).

b) Include specific information about the particular product on labels affixed/glued to the outside of the geotextile roll and on the inside and outside of the geotextile roll core (i.e., the cardboard tube the geotextile is rolled on). Specific information could include the AASHTO M288 Classes met by the product, certifiable values for key properties, and the roll number for traceability.

Permanently marking the edges of the geotextile with the manufacturer name or code number would meet the need the states have to know who actually manufactured the geotextile. Putting labels on the outside of the roll and on the inside and outside of the core would insure that the labels are not lost, and the labels would be less costly to implement, and provide the flexibility needed to include as much information about the specific product as the states need.

Both the marking and the labels would be placed by the manufacturer, not the private labeler or the manufacturer’s distributor. However, if the private labeler wished to place another label in a different location on the wrapping or roll, that could be done. But doing that would not replace or cover up the labels affixed by the manufacturer.

As a state DOT, do you feel that this marking plan would be acceptable to meet your needs?”

“Question #2: Some of the manufacturers are concerned with the cost and trouble required to get this certification. They are also concerned that they should not have to get this certification if the state DOT labs who do geotextile testing are not required to get this certification. The reason this concerns the manufacturers is that a non-certified state DOT lab could trump the certified manufacturer lab if there is a conflict on the state acceptance test results. If there is a dispute regarding acceptance test results, the manufacturers feel that both labs should be on equal footing in how they are running the test.

a) Does your state conduct geosynthetics testing? If yes, please answer the next question.

b) For those state DOT’s who do geotextile testing, would you be willing to get GAI-LAP certification (since AASHTO does not certify geotextile testing currently)?

Go to the following web site to find out about the accreditation program and its cost (see application form for cost information):

http://www.geosynthetic-institute.org/gai.htm”

The first question was not intended to provide multiple options for product marking but was in fact a single option to be considered as an alternative to what is currently in the NTPEP approved
GTX audit program work plan. However, some state respondents considered parts (a) and (b) as separate options and responded accordingly. (Note: 27 states responded. Regarding the product marking question, 22 of those who responded said the proposal to mark the edges of the roll with the manufacturer and the rest of the product data on labels affixed to the roll in multiple locations was acceptable, though five of the respondents expressed concerns about the use of a code number for the manufacturer due to the difficulties that would cause with their inspectors in the field. Of the remaining 5 respondents, one had no comment, and three felt that the label would not be sufficient for their needs – they really wanted the manufacturer printed on the roll edge with some type of product identification. Regarding the second question – GAI-LAP certification, of those labs who do geosynthetic testing and do not have that accreditation, they responded that they did not want to get that certification.)

Tony then asked for specific opinions from the TC members regarding the product marking proposal, considering the proposal as clarified in that parts (a) and (b) in the survey question #1 are two parts of one option being proposed as an alternative to the product marking requirements in the NTPEP approved geotextile audit work plan. The proposal considered by the TC, therefore, was to mark the roll edges permanently with the manufacturer name or manufacturer code number and including the rest of the product information in a label permanently affixed to the outside of the roll and the inside of the geotextile roll core. With that understanding of the proposal, the TC discussion is summarized as follows:

Ed (ILDOT) and Dan (MDDOT) felt that the proposal would be acceptable if as a minimum the mark on the edge(s) of the roll included both the manufacturer identification and the target unit weight of the product as a minimal product identifier. Jason (LADOT), Pete (WIDOT), Stacey (KSDOT), and Steve (ARDOT) indicated that a label which included the product identification information plus the roll number and production date, but with the manufacturer identification printed permanently on the edge of the roll, was acceptable. The industry members present said that even requiring the manufacturer to be printed on the roll edges was a problem, at least for woven geotextile manufacturers, as the marking equipment would have to be provided on each weaving loom (woven manufacturers have many looms), resulting in high start-up and long-term costs to implement this. However, requiring that the mark on the edge of the roll include a minimal product identifier such as a nominal or target unit weight would only increase this cost burden on the manufacturers (note: see follow-up comment from GMA at the end of these minutes regarding this issue).

The use of a code number to identify the manufacturer on the geotextile roll was also a concern to some of the TC members present. However, Tony mentioned that the anonymity of the manufacturer is a key sticking point for the GMA, and requiring the manufacturer name to be printed on the roll edges or the label will be a significant problem. Tony said in light of that, could the TC members present live with the use of a manufacturer code that would be available to each state, instead of the manufacturer name being printed on the roll edge(s)? All the TC members present indicated that they could live with the use of a manufacturer code number.

Regarding the second survey question (i.e., should GAI-LAP accreditation be required of both the states and the industry), for those states that test geosynthetics and don’t already have GAI accreditation (presently, only NYDOT has that accreditation), the states themselves were not
willing to pursue that accreditation. However Dan (MDDOT) felt that even though the states may not have GAI accreditation, that NTPEP should still require the manufacturer labs to get the GAI accreditation. Two TC members present (Pete from WIDOT and Steve from ARDOT) were unsure at this point whether or not GAI accreditation should be required of the manufacturers even though the audit process would practically accomplish the same thing in terms of evaluating their testing quality. The rest of the TC members present felt that it would be acceptable to rely on the audit process to address testing quality and not require GAI accreditation. Katheryn (AASHTO) pointed out that the other NTPEP audit programs do not require the manufacturers to have an accreditation similar to GAI-LAP (i.e., the audit process adequately addresses the test quality issue). To be consistent with the other NTPEP audit programs, she recommended that we do not require the manufacturers to be GAI-LAP accredited.

In conclusion regarding these two issues (product marking and GAI accreditation), it appears that the TC is split on these two issues and that a formal TC vote will be required before any changes to the current geotextile audit work plan can be proposed to the full NTPEP committee in November for its consideration.

With regard to product marking, the work plan changes to be proposed to the TC for their consideration and vote will be as follows (shown are the current work plan sections, with proposed changes in red text):

**Product Marking Alternative #1:**

1) **Product Marking** – Each unique geotextile manufactured for AASHTO M288 qualification and NTPEP program participation shall be marked with a clearly legible print showing the minimum following information:
   a) Manufacturer (or manufacturer ID code number) and product name
   b) AASHTO M288, and M288 class(es)

   This marking shall be located on the roll edge of the product in the selvedge at a frequency of once per 5 meters (16.4 ft).

   In addition, labels shall be affixed to the outside of the geotextile roll and the inside of the geotextile roll core where they are easily visible for inspection, and shall be attached in a manner that would make the label difficult to remove or replace. As a minimum, the label shall contain the following additional information about the product and its production: the roll number, its production date, and product MARV’s (or MaxARV’s for properties such as AOS) for grab tensile strength, trapezoidal tear strength, CBR puncture, permittivity, and AOS.

   This product marking requirement shall also apply to products distributed under a private label, except that the product name shall be the name of the product given it by the private label company.

**Product Marking Alternative #2:**

2) **Product Marking** – Each unique geotextile manufactured for AASHTO M288 qualification and NTPEP program participation shall be marked with a clearly legible print showing the minimum following information:
c) Manufacturer (or manufacturer ID code number) and product name

d) AASHTO M288; and M288 class(es)

This marking shall be located on the roll edge of the product in the selvedge at a frequency of once per 5 meters (16.4 ft).

In addition, labels shall be affixed to the outside of the geotextile roll and the inside of the geotextile roll core where they are easily visible for inspection, and shall be attached in a manner that would make the label difficult to remove or replace. As a minimum, the label shall contain the following additional information about the product and its production: the roll number, its production date, AASHTO M288 class(es), and product MARV’s (or MaxARV’s for properties such as AOS) for grab tensile strength, trapezoidal tear strength, CBR puncture, permittivity, and AOS.

This product marking requirement shall also apply to products distributed under a private label, except that the product name shall be the name of the product given it by the private label company.

The TC will be asked to vote on both of these alternatives, yes or no, and which alternative is preferred if both alternatives are acceptable. Instructions for voting on the product marking issue will be as follows:

- If either Alternative #1 or Alternative #2 are acceptable (i.e., the TC member can live with either alternative), vote yes on both alternatives, and indicate whether or not one alternative is preferred over the other.
- If one or both alternatives are not acceptable, vote no on each unacceptable alternative, and yes on the acceptable alternative.

Note that because of industry concern regarding the inclusion of fabric unit weight on the roll edge as a product identifier (see comments from the GMA at the end of these meeting minutes), Tony has replaced the unit weight in option 1 with the AASHTO M288 class(es).

With regard to GAI-LAP accreditation, the work plan changes to be proposed to the TC for their consideration and vote will be as follows (shown are the current work plan sections, with proposed changes in red text):

11) Quality Control Testing Facilities

   Note 5 – QC testing may be performed at a location separate from the geotextile manufacturing facility.

   a. The QC testing facility shall be accredited by The Geosynthetic Accreditation Institute – Laboratory Accreditation Program (GAI-LAP) or other credentialed accreditation acceptable to NTPEP. The cost will be borne by the manufacturer.

   i. The program is intended to insure that a specific laboratory is capable of properly rendering the tests that they perform.

   1. The program is to accredit geosynthetic testing laboratories for performing consensus standard test methods insofar as equipment,
While the accreditation by GAI-LAP or similar accreditation program is proposed to be stricken from the work plan as a requirement, the audit report will indicate whether or not the manufacturer’s laboratory is accredited as part of the audit evaluation of the manufacturer’s QMS.

Before sending these proposed work plan changes to the TC for a vote, the GMA will gather information from its members and provide the TC with a written assessment of the proposed work plan changes with regard to industry impacts and costs in terms of start-up costs and cost per square yard of geotextile over a given time period to provide an approximate estimate of materials cost impacts the states could see if one of these marking proposals is implemented. The GMA plans to get an answer back to the TC by August 20th. This impact information will be included in the TC voting package for the TC’s consideration as they make their votes on these issues. It is planned to send this TC voting package out to the TC members for consideration by the end of August or sooner.

**Status of Audit Program Implementation and Results of First Training Audits:**

Our first training audit was conducted at the TenCate manufacturing facilities (Mirafi product lines) in Georgia in June. This exercise was valuable for helping us to identify what is important to ask about and evaluate and has resulted in some changes to the pre-audit application/report we will use for the next time we do a training audit. This exercise also helped us to recognize the importance of having some idea of the level of product manufacturing QC we should expect, both for the raw materials used and the geotextile manufacturing process, as there does appear to be a fairly wide range of QC programs in use. We don’t want to set the bar too high, but we also do not want to set it too low.

**Industry Perspective on Audit Program Issues and How to Resolve Them:**

Industry’s biggest concern at this point is the product marking program details, and additionally the final details of how the audits will be conducted, what will be asked for, and how it will be used. They are also still struggling with NTPEP’s expectations for private label companies.

With regard to the outcome/assignments from the meeting that was held at TenCate during the first training audit, the GMA task groups are continuing to work on how to develop a better and more consistent definition of a lot and what should be expected for minimum QC requirements. The GMA intends to provide a response back to the NTPEP TC by August 20th on these issues. With regard to the next training/trial audits to be conducted, they are still trying to finalize selection of a smaller manufacturer and a private label company for these next audits. The GMA expects to get back to NTPEP with this information very soon.

**GTX On-line Cost Determination Confusion:**
Katheryn mentioned that she has received questions regarding the on-line GTX testing cost spreadsheet that is included as part of the on-line application process, especially with regard to which fees are on a product line basis versus those that are on a per product basis. Katheryn volunteered to look at the cost estimating sheet and develop some draft changes for TC consideration (or at least the TC chairman).

**Status of REGEO Program (new testing, mini-audit issues):**

Tony summarized the learning from the first REGEO “mini-audits” conducted (i.e., at the TenCate plant, and also at the ACE plant in Taiwan). The focus of these mini-audits is the establishment of consistency/traceability in the product line (e.g., are the raw materials consistent and traceable throughout the product line, is the manufacturing process consistent, etc.). These first audits are in compliance with the currently approved REGEO work plan and the AASHTO protocol used for this program – they were both training audits and actual audits. Raw material QC/QA is a key issue for geosynthetic reinforcement, but the issues to be addressed are similar to what is described in these minutes for geotextiles. We are continuing to update the pre-audit report for the REGEO program based on what has been learned from these first few audits.

The conference call was adjourned at approximately 11:30 a.m.

**Conference Call Follow-Up Comments from GMA (8-5-11):**

The GMA was asked to follow up with providing input on the issue raised at the conference call by some of the state representatives present that they wanted more than just the manufacturer’s name or code number printed on the edge of the roll. Their response by e-mail on 8-5-11 was as follows:

1. GMA is opposed to printing more than the manufacturer’s name or manufacturer’s code number on the fabric for these reasons:
   a. The additional printing will require additional costs. Rather than having a static printer (roller type printer) in the process, a changeable printer will be needed based on what weight is being produce. (We are polling our members regarding costs. The initial responses indicate a cost of at least >$100,000.)
   b. It is not uncommon for a manufacturer to down grade a run of geotextiles because it did not meet the target weight. Some of the manufacturers can re-pelletize the rejected materials. However, most manufacturers do not have that capability. If the target weight is printed on the fabric and for some reason the produced geotextiles do not meet the printed target weight, that geotextile cannot be used and must be sold as scrap. This result in a significant cost/loss.
   c. The DOTs should not be specifying based on weight. The weight is not indicative of strength. DOTs should be specifying based on M288 class and accompanying
specifications. That information will be provided using the label solution we offered.

d. Silt fence is not measured in weight. That is an importers standard (India and China).
e. Manufacturers weave silt fence to meet the DOTs spec (which hopefully is the M288).

2. Again, GMA would like to require the same lab certification of the DOTs that is proposed in the work plan. Since the DOTs are not willing to be GAI-LAP certified the requirement should be dropped from the work plan. The proposed audit process will accomplish more than adequately the lab testing capability of the manufacturer. The lab certification is only a snap shot in time and we need to be sure that the focus of the audits are on the manufacturer’s processes since these are the keys to delivering a quality product. How they handle process deviations, off quality, etc. is much more important than a lab certification.