



Web Forum 2: Stormwater and DOT Construction Projects Web Forum
Questions and Answers
January 28, 2016
11:00 am – 12:30 pm (EST)

What did you have to do in Alabama to “sell” the idea of telling the contractor how to build a project? In my experience, that is ‘key,’ but a roadblock that I see and hear about constantly.

At ALDOT, we have to constantly remind ourselves that an environmental win alone is not enough, which is hard to say and hear. Once you remember that you work for a transportation department, you start to couple other benefits with that environmental win. We seek the trifecta, which includes an environmental win, and a traditional transportation benefit, and then that the project can move along. These might include enhancements in safety, reducing costs, improving traffic, or improving constructability. Selling the other benefits to the transportation agency is the real key to advancing change.

Is Maryland State Highway Administration a delegated NPDES permit authority?

Maryland State Highway Administration (SHA) has a National Pollutant Discharge Elimination System (NPDES) permit, is covered under the General Construction Permit because we have a Municipal Separate Storm Sewer System (MS4), and is considered a Phase I permittee for most of the state. We also have an industrial NPDES permit. However, we are not delegated because it is a US Environmental Protection Agency (EPA) program, delegated to the Maryland Department of the Environment (MDE). Apparently, you cannot delegate a delegation. MDE has delegated sediment and erosion control, and stormwater management to SHA. MDE continues to inspect projects for NPDES—the projects that are greater than one acre of disturbance.

Maryland State Highway Administration has a great incentive/disincentive program. Is that tied to your delegation to self-administrator?

No, the incentive/disincentive program has been in our specifications for about 15 years. Our incentives/disincentives, liquidated damages, specifications, and some of our processes to incorporate the environmental commitments into our specifications, this is probably one of the primary reasons we have been allowed to have the delegated authority. It was a big deal for us to go through that effort to get delegated authority.

Was the Maryland State Highway Administration Quality Assurance Toolkit developed in-house or by consultant or contracted developer?

It was developed with in-house staff and a consultant. We have some in-house staff that are very good at database manipulation and are effectively the database administrators. When we need complex programming, we task that out to our consultants.

Approximately how many inspections do Nebraska Department of Roads inspectors complete per week?

It is hard to say, but several hundred probably. This amount depends on the time of year, the phase of construction of the project, and how many projects are active at the same time. Now, during the wintertime, it will be a little slower because we only have monthly inspection requirements for the most part. It is tough to give that answer without actually running some summary reports. Currently, we have about 110 inspection reports coming in every month.

Does Alabama Department of Transportation recommend a commitment letter of sorts to achieve the connection between environmental commitments and DOT missions, or is it a handshake?

Assuming the commitment letter is an internal commitment letter, a commitment is required from leadership, but it is not necessarily written or documented. It is more in the form of showing up at meetings and saying positive things, or not saying negative things about what we are trying to do in the stormwater world. When there are problems, it is about having leadership's support and continually reminding staff that environmental matters are important. We do have a letter of collaboration from an environmental group, and some memorandums of understanding with regulators and others have been created in the past to formalize things. However, as far as tying our mission to our responsibilities, a vision-casting task and communication reminder needs to take place.

How do you encourage and promote accurate and complete inspection reporting? (Underreporting of unsatisfactory conditions - all green flags all the time)

It is tough to do. District environmental trainings are currently being performed; this topic is discussed in those training sessions. Documentation of the field conditions is critical. Many inspection reports come in clean, and sometimes even after rain events. We try to educate staff and remind them about improvements they can make to their documentation of field conditions. We have oversight inspections and perform audits, check the reports, and have regular meetings to discuss reporting.

How difficult is it to link Nebraska Department of Roads' ECODatabase with existing data, such as the construction tracking and payment system(s)?

It is not difficult. The little bit of data that we have had to pull from other databases has worked easily.

Can you discuss the process of developing Nebraska Department of Roads' inspection report system software? Who created the software for you, and how much did it cost? How long did it take to develop? How long has it been in use? What issues did you have to overcome to implement?

Nebraska Department of Roads has been working on its database for about four to five years, and development is ongoing. We spend about \$50,000 - \$60,000 per year on enhancements and/or just on maintenance of the program. In addition, we have an outside vendor that helped develop the Colorado Department of Transportation databases. We have also worked with a third-party consultant for our MS4 program, and they help coordinate what needs to be done in the system as well. When issues arise, we

have a maintenance contract with the third party vendor. They are required to fix issues within a certain amount of time as stated in the contract.

SHA's system has developed incrementally. We had a paper-based system in which inspectors wrote down whatever they saw during each inspection and provided subjective grading. We developed a system to track the grades, but it did not have any documentation of what was checked. Eventually, we transitioned into a more technically savvy process because of the need to track more detailed information. We now use laptops and cellular connections to the database to remotely track detailed information at the job site. It can produce reports and has grown over the years. The database has also become a great communication tool. We spend about \$100,000 a year on maintaining the database and developing widgets for the toolkit that need to be reported. It has been worth the time and effort put into developing the database, because it keeps you in compliance. They are willing to make this investment, and it sends a message to the contractors that they are serious about documenting this information.

Do the Maryland State Highway Administration yellow card/green card certifications have expiration dates? How long before recertification is required.

The "Green" card is the Maryland Department of the Environment's "Responsible Person Certification" (<http://www.mde.maryland.gov/programs/Permits/Documents/2008permitguide/WMA/3.22.pdf>). MDE's RPC does not expire unless there is a major change to the program. Mine, since 1992, has not expired. The "Yellow" card is the State Highway Administration's Erosion and Sediment Control Certification (http://www.roads.maryland.gov/Training/Erosion_and_Sediment/ReCertification/YCtraining.html). It expires every 3 years.

Can Nebraska Department of Roads provide some background as to the reason why a project closeout environmental summary was developed in ECODatabase?

That summary report was developed in response to FHWA project audits that were being conducted periodically. During their audits, they wanted specific dates of when environmental commitments had been completed. For example, when coordination had occurred with an environmental agency as required by a permit, etc. This benefited everyone involved, since they would not have to go back and dig through inspection reports and other documentation to find these dates.

How do you separate the deductions as penalties vs. construction workmanship reductions? We cannot penalize as a DOT agency.

There are two forms of "penalties" written into the contract. Project shutdowns are very effective. All work is stopped except what is needed to get the project into compliance. "Liquidated damages" are the cost to the Administration (State) to coordinate the contractor's response, do additional inspections, etc. These are deducted from the monthly invoice payments to the contractor. We have pay items for incentives and liquidated damages that get charged against the contractor. There are a few nuances in the language used here. First, liquidated damages are a function of the contract. They are administered through the contract processes defined in the Specifications. Penalties (referenced in the question) are only used by regulatory agencies that have legal authority, like the Maryland Department of the Environment. SHA has other forms of liquidated damages that kick in for poor workmanship, exceeding the contract time, etc. SHA has penalties for poor maintenance of traffic, because SHA is the regulatory authority for that. Our actions are against the contractor. We do not assess liquidated damages or penalties on SHA personnel. There are other internal administrative processes for that.

In Maryland State Highway Administration’s presentation, one slide mentioned ‘Automatic’ “F” for a grade. Does that mean that if the scorecard is not completed, the contractor automatically gets an “F” for those criteria?

The automatic ‘F’ is for issues like the contractor being outside the approved limits of disturbance, not having the required permits/approvals, or being out of the approved sequence of construction. All of these things indicate that the contractor has a general disregard for the contract and environmental commitments. We note what the grade would have been, if the contractor had not earned the automatic “F.” We also note what corrections need to be made to get back into compliance for the “F” and other items. We re-inspect the project as soon as the contractor can demonstrate that they are back into compliance. A timeliness of repairs is evaluated. If the contractor has resolved the automatic F and made the repairs in a short time frame, they can get an excellent follow-up report.

Are inspectors using smartphones or tablets to enter inspection data?

Maryland SHA inspectors use Panasonic Toughbooks with air cards for access to the internet. They are equipped with touchpads or touchscreens so the inspection reports can be signed by the contractor on the job site. The construction environment is bit too tough for the tablets that we tried. We have had problems with what our people called the semi-tough Toughbooks. The full-tough Toughbooks do well.

Nebraska Department of Roads is not currently using those devices to log inspections. We are looking at becoming more mobile, but are probably a couple years away from that functionality.

Will the webinar slides be posted anywhere for download, or repeated at any time?

The webinar slides and a recording of the webinar will be posted on AASHTO’s Center for Environmental Excellence website:

http://environment.transportation.org/center/products_programs/communities_of_practice.aspx

There are no plans at this time for repeating the webinar.