

10/10/19
Convened: 1:00 pm
Adjourned: 3:55 pm

HB 617 Recycling and Solid Waste Committee

N.H. DOT

Bill Cass Assistant Commissioner
Eric Thibodeau Pavement Mgmt Section

Cass: inre: glass were contacted by NRRA about issue about recycled glass

- Became aware of some of the peripheral municipal issues
- What could DOT do to advocate to use of Glass Aggregate
 - Could DOT guarantee some specific qty of glass aggregate as a use in DOT projects?
 - The idea of using PGA has been around for some time, it is in our standard specs based on national standards for base materials - it has been allowed
 - Put out performance spec out for materials, but do not specify what kinds of specific materials a contractor can use. We let the market dictate that
 - My ssense is that PGA hasn't been cost effective for contractors to use.
 - Contractors don't see it as a cost effective way given many limitations in our group discussions with stakeholders
 - We at DOT are helping to bring an awareness for its use, but have stopped short of requiring use.
 - However, are considering a pilot program to see if that could be something we could dictate for materials available, but has not been put in motion, we've lost two employees who would have been responsible for helping to implement a program like it.

K.Ebel: AASHTO standards are what you are looking at inre: underlayment and also pavement materials

Cass: Yes, ASHTON requires and 80:20 mix and MUST be used in a base layer under a walk or road way

Ebel: Are there other places that could potentially use it other than road base and walkway base?

Cass: Yes. There are general uses bases to roads, drainage installations, anywhere that requires sand or crushed gravel.

J. O'Connor: Are you restricted by federal funding if you'd use glass?

Cass: Not that I am aware of

O'Connor: Is it required to come from a permitted facility?

Cass: I would have to check into that.

O'Connor: Do towns have to abide by the state standard specs?

Cass: they are not required to, unless they are doing a state own bridge project or something of that nature.

Ebel: Are contractors reluctant to use the product because they're not familiar?

Cass: AGC seems to indicate that the cost barriers that limit it is their use based on meetings with them.

Ebel: Are there other areas nationally that use it?

Cass: I am not aware of them off hand but I can check. We work closely with Maine and VT in New England we are compatible regionally. Some states may require exemptions from solid waste rules. I believe VT does this.

O'Connor: is there enough volume of glass available?

Cass: I am not sure. If we could guarantee a certain amount, but I know we are hesitant to require its use, but we do allow it. Refers to DOT DRAFT Map on BASE Course Materials. Several other communities may be interested in using it, but are not on this map.

Watters: What is the cost comparison on its use in underlayment versus not using it?

Cass: I am not entirely clear, because this hasn't been used enough to really calculate.

Murray: Any insulating properties glass may have?

Cass: it seems to be pretty similar in structure to sand and gravel, we have heard anecdotally however that is remarkably well suited for drainage - we became aware of some projects in New London.

K. Ebel. - Contractors would notify you if they are using the glass in the mixture right?

Cass: Yes, we would know - we have materials inspectors also.

Watters: Would it be an overreach to include language to dictate it through language that says, "Shall use..." or something to that nature:

Cass: I will say it is allowed, but the feedback has been that contractors and materials suppliers were the folks to dictate, but we are certainly willing to look at a potential pilot program, but cannot guarantee when that would start.

Ebel: I wonder if there are any federal grants out there? Glass presents a multitude of pressures to municipalities etc...and so the market for glass has pretty much plummeted. It could potentially be a huge cost savings to towns if it can be used and go into road base projects.

Cass: Don't know about quantities, and also am not sure about municipalities using it. Federal Highways grants - i think that work has already been done some time ago.

Murray: what about towns that contract out the work? Could municipalities ask contractors to consider using it?

Cass: Yes, I could envision municipalities reaching out that way too to advocate:

E. Thibodeau - my section is in charge of the annual paving programs and how recycling materials works into top layer that we are already using. (see handout Recycled Materials Used in Pavements)

- RAP - most common use is in the production of NEW mix.
 - 800,000 tons of RAP containing materials yielded 4 million dollars in savings. Use really began in the 80's and tracking in the 90's
 - Sometimes we salvage it back to the state, PMRAP - we take that and add things to it, to cold process thick overlay on existing road pavement - softer and has a greater "give/flexibility" to it.

- Sometimes 4-8 inches of material is added to reslope/shape and it does also get used in shoulder gravel, it compacts well. Water goes over it instead of into it.
- FDR - we recycle the material right in place on site, a special machine drives over and recycles the material into the ground.
- GTR - is scrap tires no longer needed, ground tires are chipped and used for several things.
 - Crack sealing - ground tire rubber is 20% of mixture
 - Rubber Chip Seal - it's a sealant and chips of stones, and about a 1/2 water seal as a pavement preservation treatment
 - Those stones sit on top stuck and gets embedded over time and the goal is to get to 70%
 - AR binder for new road mixes
 - Approx 1.4 million tires have gone into those projects

Ebel: What percentage of it is not being reclaimed or a surplus?

Thibedeau: All of that materials can go back to get reutilized, most asphalt being continually reused.

Ebel: Where are you getting those tires?

Cass: it's market driven and comes from manufacturers in albany and in PA and contractors use them.

Watters: Can you use this materials as RAP?

Thibbedo: Yes.

Ebel: Does DOT use their tires own tires to recycle into this

Regan Bisonette: NRRA

- Hands a sample of PGA to the committee to see, feel, etc
- Wants to talk about Glass and helping communities recycle glass in communities
- NE has the highest tipping fees in the country - expensive to landfill and recycle
 - Market shifts in packaging
 - Municipalities having trouble keeping other glass-like contaminates out of their recycling stream (ceramics etc)
 - Just glass bottles and jars can be brought to our hosts sites, one to Keene and one in Lebanon and then is taken to a facility into a fiberglass from a vendor in Canada - it requires as little contamination as possible. 2m would like more glass, but are having trouble amassing clean/uncontaminated glass.
 - We have communities like Meredith who are still habitually separating out their glass, but at the end of the day it is being thrown out, because it is too expensive to pay for fees etc. Transportation, costs, etc
 - Community pays to get the glass to those host sites. Keene serves 31 individual communities and each one of those individual communities is responsible for getting it to these host sites. ~ 35 dollars a ton.
 - Communities who do not want to adhere to 2m contamination guides can still recycle by host for PGA

- We use mobile crushers crush glass once 1,000 tons is accumulated until that machine comes in. Requires a flat area, a weigh station, and someone available to inspect the glass for contamination.
- NH DES has certified PGA as a non-regulated solid waste so long as it meets the aspects - 1" or less in size, then and only then can it be used for sub-base, pipe bedding, etc. and can be used in municipal
- BUT NHDOT requires 3/8" which is much smaller and therefore requires much more of an expense

Watters: What's the cost differential?

Bissonette: Roughly \$5 a ton - it also requires an additional screen to sort out the to larger glass and therefore it is more expensive

Watters: Are states out there that are required to use PGA?

Bissonette: Not required but CAN use. One challenge is VOLUME we need a large amount of volume. You have to have stockpiles of PGA available. New London attempted to use glass in a parking lot but for some reason it never happened. Logistics of just getting the glass can be burdensome to contractors. Municipalities are free to use PGA in subbases, retaining walls and foundations, etc, but DOT requires 20/80%

PGA is NOT frost susceptible to frost heaving - glass can not absorb water - Army Corps of Engineers did a study on glass aggregates and they held up remarkably well.

Watters: What about given water levels rising, does it have any water intrusion benefits since glass can not absorb water?

Bissonette: I am not sure.

Ebel:

Bissonette: I am looking at the low hanging fruit here. If a private use of glass is sought DES requires a professional engineer to certify it. Whereas municipal use does not so long as it meets their own local municipal controls/specs.

K.Ebel: what is the basis of this rule, Mr. Nork?

Nork: in 1999 it was created for a "waste product" to declassify it so it is then no longer considered waste but for private uses there could be a larger range of things it "could" be used for there for speculatively it was set as a standard because of the wide range of situations it could potentially be used in. We don't regulate materials once it becomes a "product"

Watters: Can DES and NRRRA work together to pre-certify it via legislative language?

Nork: We are working with NRRA to understand their position

Bisonette: I don't see a need for legislative action, we are working on ways to help USDA grant.

One day workshop available to folks interested in using glass on April 15th, 2020 - seeks to invite road agents, public works staff, and engineering and construction companies to attend.

K. Ebel - is clarifying about legislation submission requirements with committees etc.

Colleen Smith - Food Protection Program - Section of DHHS

- Dairy
- Beverage/Bottled Water
- Food Sanitation Program - direct to consumer - food manufacturers
- Mollusks and Shellfish

*There are 15 self-inspecting towns: generally larger cities, there are some towns with Memorandum of Agreement between some towns who do their own inspecting.

508:15 Donors and distributors of Food

Smith: Share tables and national food services programs limit the idea of of these concepts for waste diversion.

Smith: would love to work with schools to work with safe handling

Murray what about costs to schools who are throwing this stuff away, can they compost, could a share table be set up?

Smith: it is difficult once food comes out of a temperature controlled area, to ensure that the items remain safe, we certainly are encouraging of schools using composting so long as the bucket is sealed, and limits rodent access, we share similar concerns about food waste but also need to be mindful of food borne illnesses.

Next meeting is: October 15th, October 21

Last Meeting: is October 17th