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An Act concerning chemical road treatment.

Testimony, February 28, 2014

Leon Burch

I grew up in the concrete business. I went through asphalt and concrete training with the Army Corps of Engineers and served with Army Corps of Engineers as a concrete and asphalt pavement specialist 1960 through 1963.

Since that time I worked primarily as a concrete contractor. For five years I worked with the state of California contractors license board as a consultant for problems with concrete.

I came to Connecticut in 1988 and started a business in 1992 specializing in machine extruded concrete curbing and pervious concrete pavement. We have installed over 3,000,000 feet of machine extruded concrete curb throughout the Northeast. I've established the specifications for the installation of machine extruded curb that is used throughout the Northeast.

I have become quite concerned the last for five years with a deleterious affect that the deicing chemicals are having on concrete since the state has increased the use of these chemicals exponentially. This has prompted me to research the effects of the deicing chemicals on concrete's. There has been many studies already made in other states as to the effects of these chemicals on concrete not to mention on all the vehicles traveling on these roads and highways. To name a few there is the University of Iowa in conjunction with the Iowa Department of Transportation, the University of Colorado Denver, the University of Tennessee as well as University of Kansas.

I don't believe the state of Connecticut has to reinvent the wheel so to speak. I have brought with me some photos of my personal concrete driveway which was installed in the proper manner and has held up very well for the past 18 years, until the last two years. I also have a sample of what is happening to the concrete. As you can see the concrete is beginning to disintegrate and revert to loose aggregate. As you proceed from Waterbury to Danbury on Highway 84 you are able to observe the Jersey barriers in the median strip that had begun to deteriorate just as well. They literally are turning to gravel in some places with the rebar becoming exposed. These are visual examples of what is happening to our concrete infrastructure you can be sure that this is happening to our bridge decks, bridge columns etc. It is only a matter of time before we have another Minus bridge episode. I can only imagine the problems that could occur if we lost part of the mixmaster in Waterbury. These studies indicate that all deicing chemicals have a serious effect on concrete especially magnesium chloride and/or calcium magnesium acetate. Several states have come to realize they have to take precautions in order to protect the concrete infrastructure. The damage is extremely expensive to re-mediate and sometimes the only

alternative is to completely replace the pavement and/or the structure.

I am disappointed that this bill only calls for further studies and reports because in the meantime the damage that is done and is going to be extremely expensive downline to mitigate. Everyone that owns a car everyone who owns a truck that has to use the highways in the wintertime is in effect going to experience a hidden tax and I might add a very substantial tax at that. Furthermore further use is going to contribute to extremely expensive repair bills for all of our concrete infrastructure that is exposed to the use of these deicing chemicals.

I firmly believe that any responsible person after reviewing the studies that have already been made would certainly reach the conclusion that something must be done as soon as possible. Not a year from now. As I said before we don't need to reinvent the wheel we don't need further studies we need action. It seems extremely foolish to me to proceed with further studies while Rome is burning. Immediate action is necessary.

Thank you for this time and opportunity to express my concerns. I only hope that we have been able to raise the awareness of the gravity of the situation.





