How long ago was all this and why is it relevant today?
Vienna Bypass / Route 50
HPC?
Research Project

- Investigate bridges built over a 10 year period
- Measure and map crack patterns
- Identify type(s) of cracks
- Look for correlations with bridge designs
- Look at correlations with mix designs
- Make recommendations for eliminating or minimizing the cracks
My first job in Research
Findings

- Significant cracking on 30% of our bridges
- Cracks were drying shrinkage cracks
- No correlation with design
- No correlation with mix designs or mix components
- After calling all the smart guys I could in the DOT network (Celik Ozyildriium and Cecil Jones were especially helpful), placed the blame on curing
Fogging (What I had in mind)
Fogging (What I got)
Bad spec writing / what is an atomized fogger?
Interesting way to write a spec:
Fogging to be pre approved by Henry
Foggers
Out of 30 bridges cured with wet burlap only one had any degree of cracking – and that one had not been cured correctly.
What did I learn?

• Curing is important in preventing drying shrinkage cracks
• Writing a specification and enforcing a specification are two different animals
• You need to get buy in from inspectors and contractors to get them to do what you want them to do
• We need to do a better job enforcing our specs and training inspectors
Ancillary lessons
Questions?