



University of Iowa

Global Warm Mix Asphalt Workshop

A Foamer's Perspective with AQUABlack

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Introduction

- Putting WMA into Perspective
- The Marketplace Today
- Where We Are Today
- The Maxam AQUABlack System
- Questions



WMA Perspective

The irony of WMA coming to the US

Over 350 million tons on the ground in the US

The fight over the definition of WMA



The Marketplace Today

- **90%+ of WMA produced with water foaming**
- **70% of asphalt plants equipped to foam**
- **The cost: 7 cents vs \$3 per ton**
- **Most foamers are foaming WMA & HMA**
- **HMA being produced in every state**
- **Probably 50% of all mix produced is foamed and/or WMA**



Obvious and Hidden Advantages

1. Ability to achieve density



Obvious and Hidden Advantages

2. Ability to run higher RAP%



Obvious and Hidden Advantages

3. Elimination of health risks from fumes



Obvious and Hidden Advantages

4. Improved joint density



Obvious and Hidden Advantages

5. Longer hauls



Obvious and Hidden Advantages

6. Colder weather paving



Obvious and Hidden Advantages

7. Fuel savings



Obvious and Hidden Advantages

8. Reduced pollution from plant



Obvious and Hidden Advantages

9. Improved worker comfort



Obvious and Hidden Advantages

10. Improved aggregate coating



Obvious and Hidden Advantages

11. Better appearance of pavement



Obvious and Hidden Advantages

12. Eliminates bumps over PCC crack sealant



Obvious and Hidden Advantages

13. Reduced electrical on slat and drum



Obvious and Hidden Advantages

14. Higher production



Obvious and Hidden Advantages

15. Lower equipment maintenance



Obvious and Hidden Advantages

16. Reduced oxidation of pavement



Obvious and Hidden Advantages

17. Improved air flow through baghouse



Obvious and Hidden Advantages

18. Helps with RAS and rubber mixes



The Maxam AQUA Black Foaming System



The advantage of high pressure foaming – 400 to 600 psi.



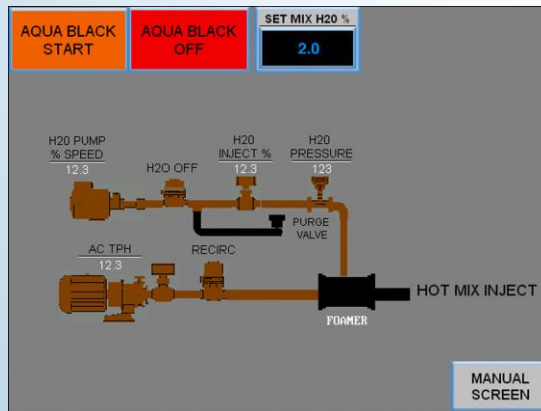
The Foaming Head: Non-plugging nozzles



All components in a lockable job box



Programmable Control



Danger!

WMA is NOT a silver bullet and won't overcome poor workmanship or bad paving practices



Questions

