

# **COMPLETING THE DEVELOPMENT OF LONGWALL FOAM DUST SUPPRESSION**

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**West Chester, PA**

**DUST**

**AWAY**

**HELP**

**LOGIC:**

**APPLY FOAM AT  
DUST SOURCE**

**CRUSHERS  
CONVEYORS**

# CRUSHER



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# CONVEYOR



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# IMPORTANT NUMBERS

Expansion Ratio (E/R) ~ 25

1 gpm (liquid) ~ 0.5" ID Hose = 0.1963 in<sup>2</sup>

12 gpm (liquid) ~ 1.5" ID Hose ~ 2.355 in<sup>2</sup>

36 nozzles/drum

Nozzle Area =  $2.355/36 = 0.0654$  in<sup>2</sup>

Nozzle Diameter = 0.289 ("L" drill)

# DRUM NOZZLE



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# **FOAM PRODUCTION**

**Inline Mixing (Hose)**

**Packed Bed Mixing**



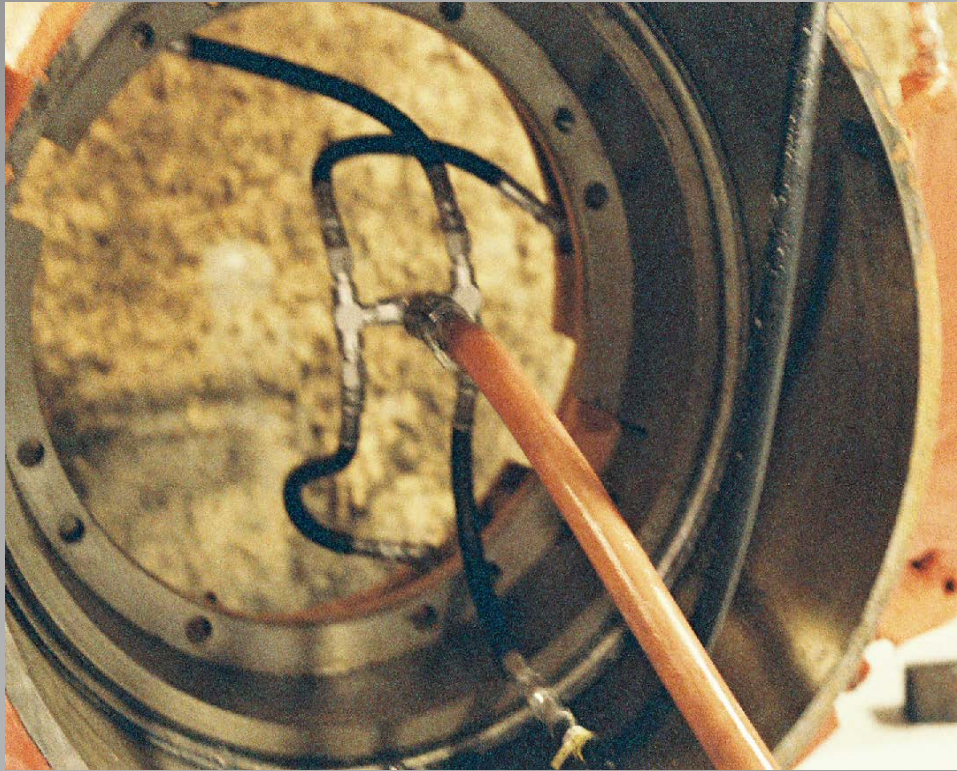
# **MANIFOLD DISCHARGE**

**Symmetrical**

**Proportional**

**Balanced**

# DRUM MANIFOLD



1:2:4:24

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# FOAM DISCHARGE



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**JOIN  
HELP  
MAKE  
COAL  
DUST  
AWAY**

**Aquafoam Inc.**

**THANK YOU**

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