



Coke Drum Support Structure Repairs

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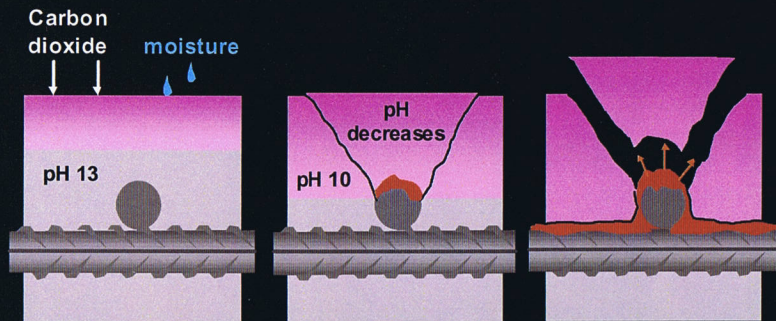
Bottom of the Barrel - May 2001 -

Deterioration Mechanisms

- ◆ **Elevated Temperatures**
- ◆ **Mass Concrete Shrinkage**
- ◆ **Dynamic Loadings**
- ◆ **Fire Damage**
- ◆ **Concrete Structure Repair**

Embedded Metal Corrosion

Cause: Carbonation



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Thermal Effects

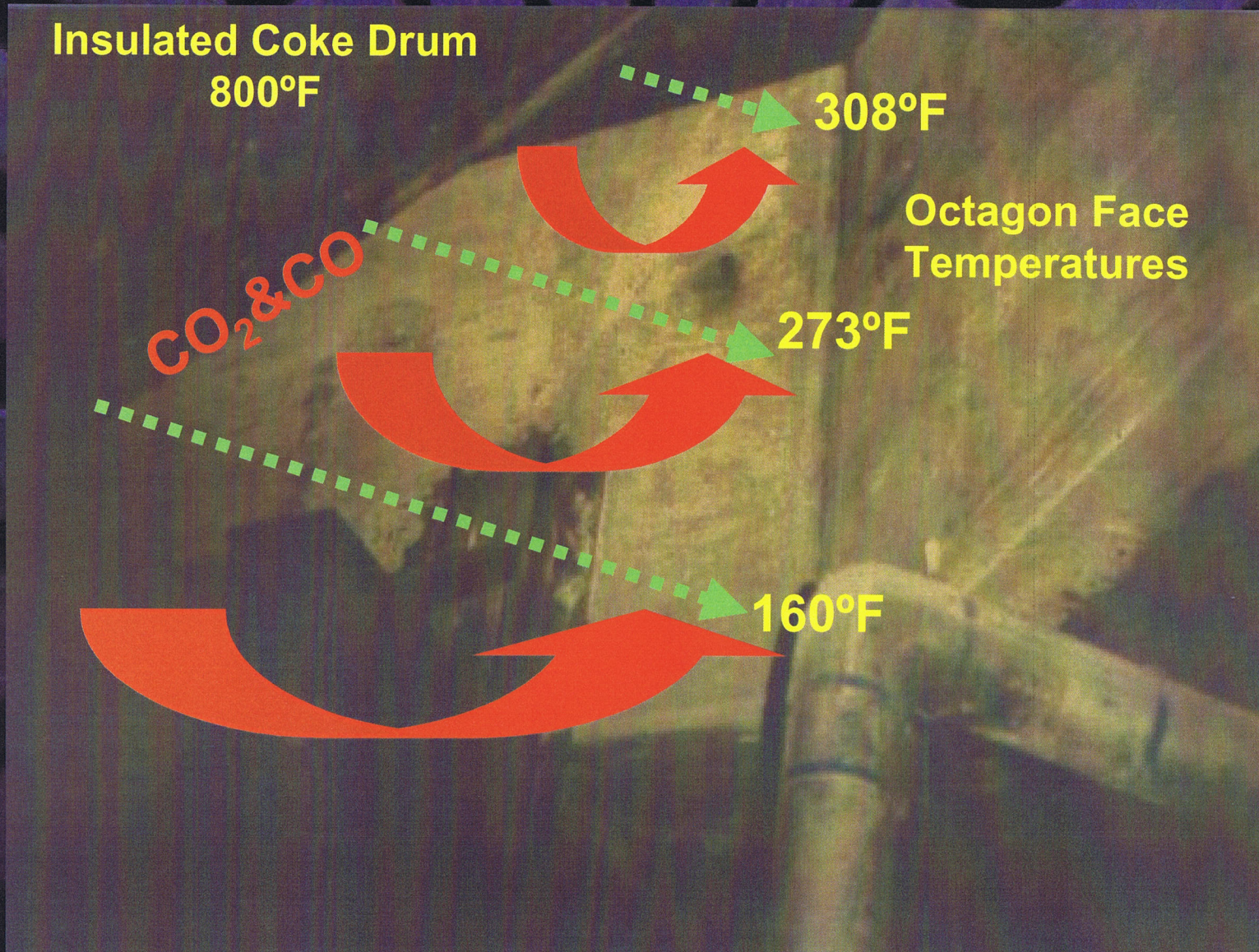
Fire Exposure

- ◆ Aggregate swells
- ◆ H_2O to steam
- ◆ Chemical change



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Deterioration in Octagons



Concrete Repair is a Process!

