# Innovative Technology Reduces Power Plant Emissions – Commercialization Success

Presented by
Dr. Clyde Parrish, Senior Chemist
NASA Kennedy Space Center
and
Landy Chung, PE/CEO
Phoenix Systems International, INC.

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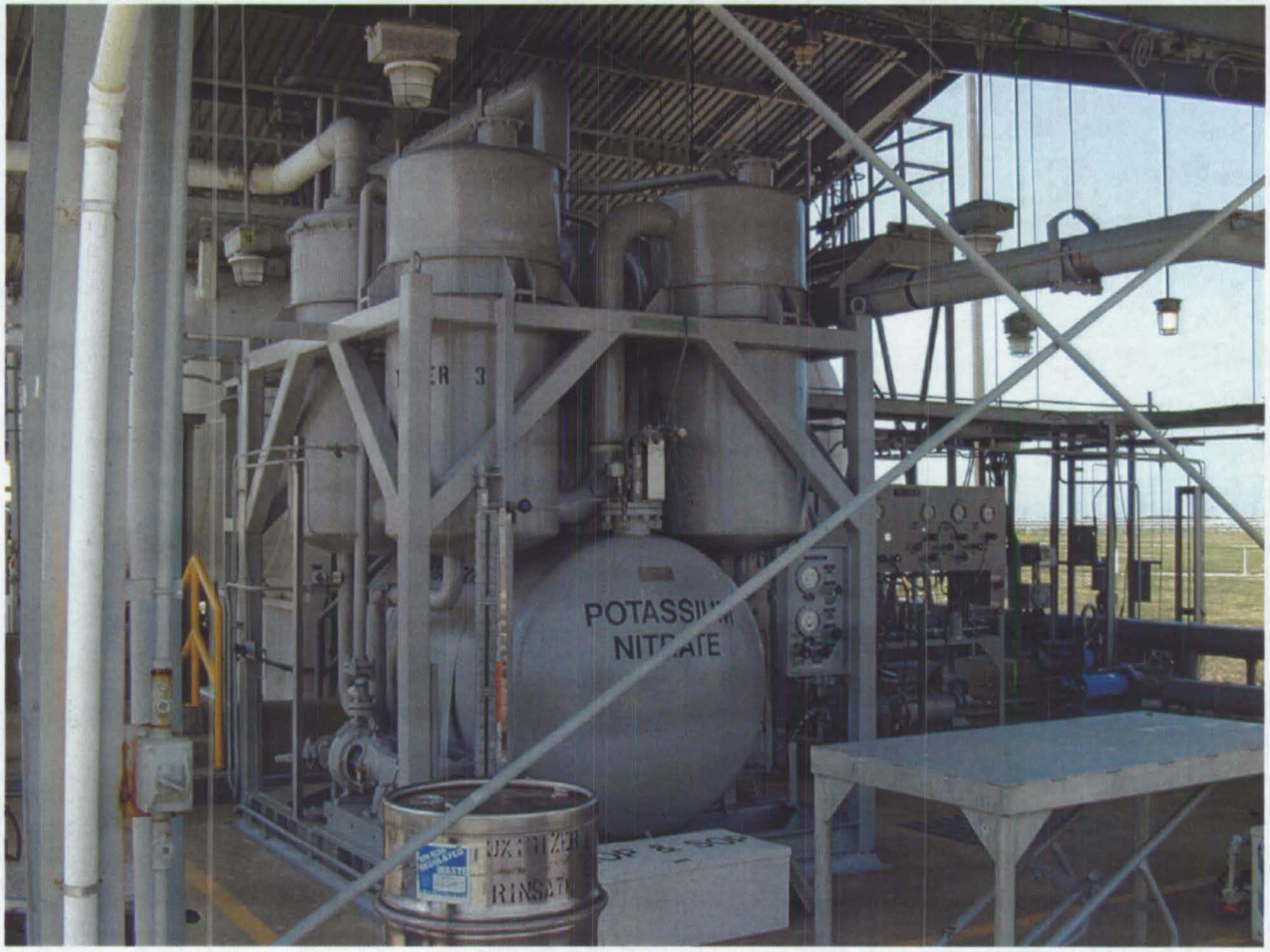
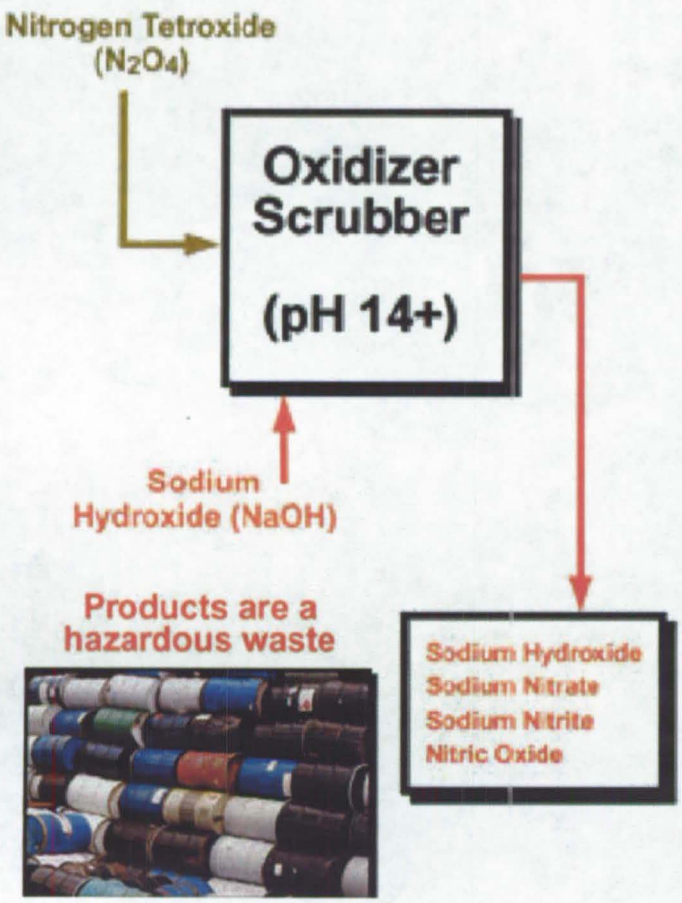
# Overview of Emission Control System Development

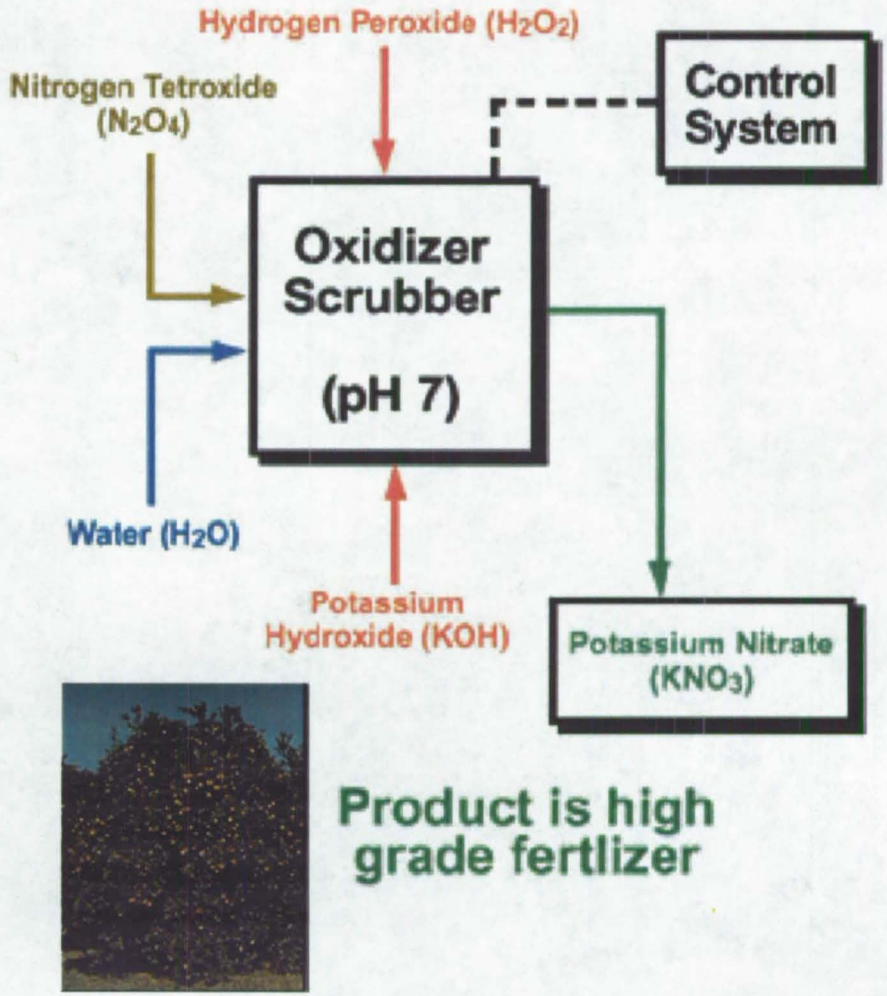
- Development of new oxidizer scrubber system to eliminate NOx waste and produce fertilizer
- Technology licensed and a 1 to 3 MWatt-scale prototype installed on power plant
- Development of method to oxidize NO to $NO_2$
- Experience gained from licensing NASA technology

# Development of New Scrubber Liquor



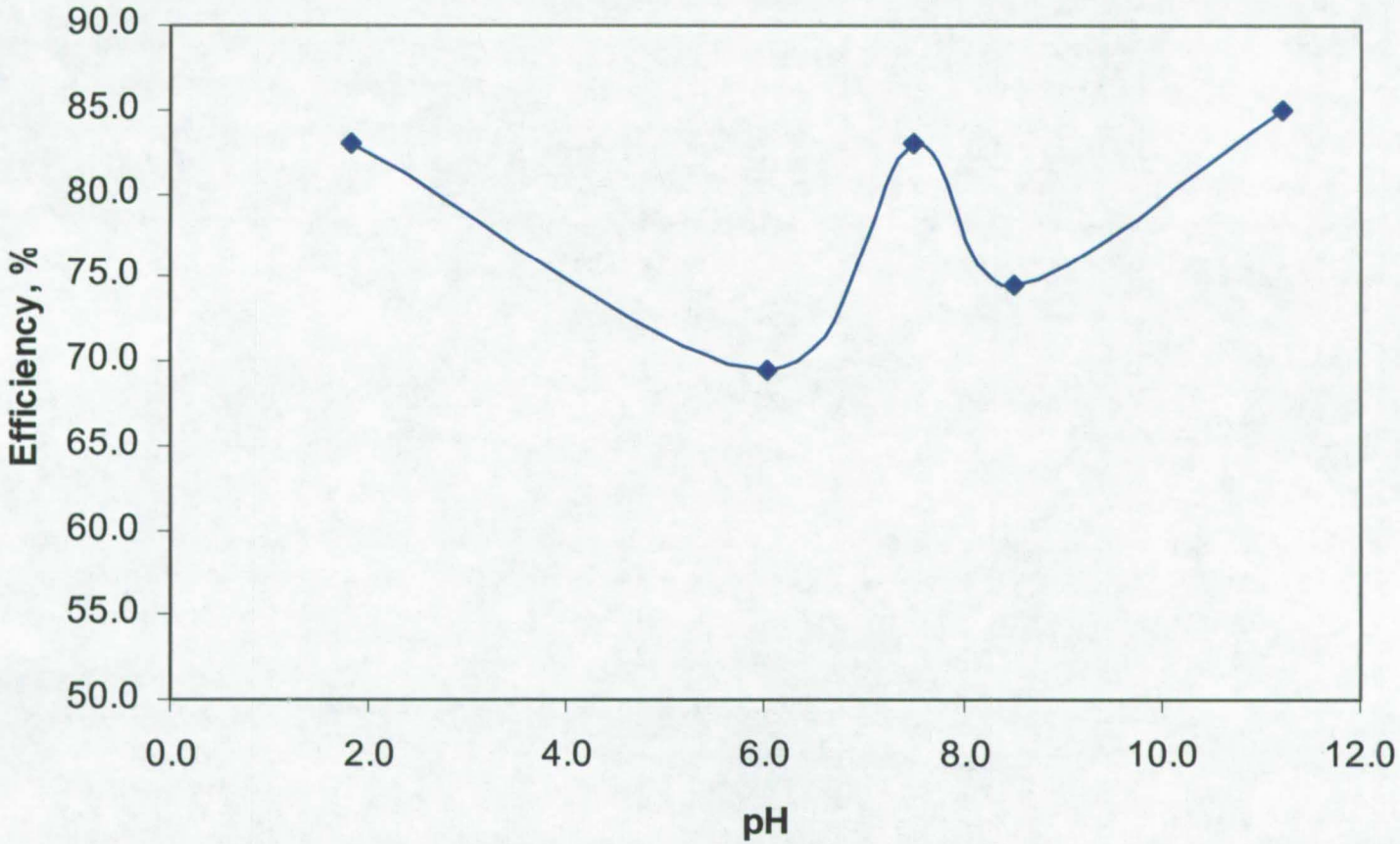
# Transformation of Waste to Fertilizer



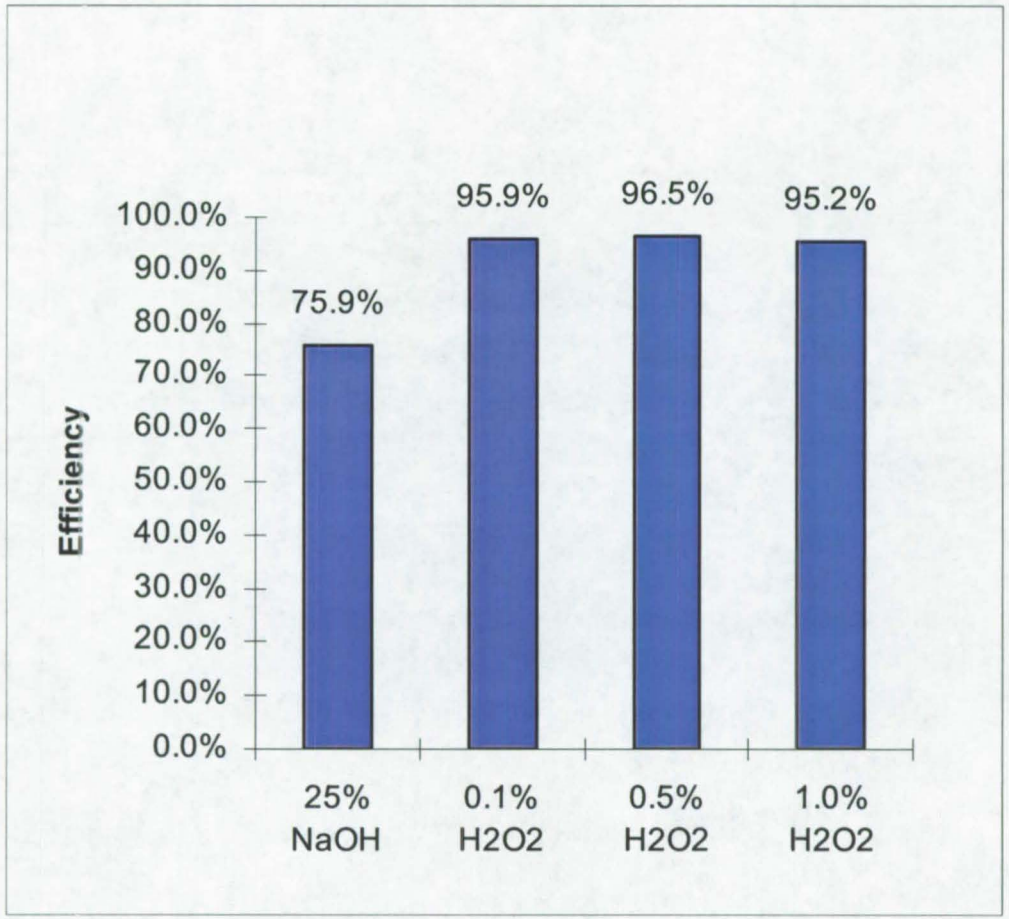



# New Scrubber Liquor System

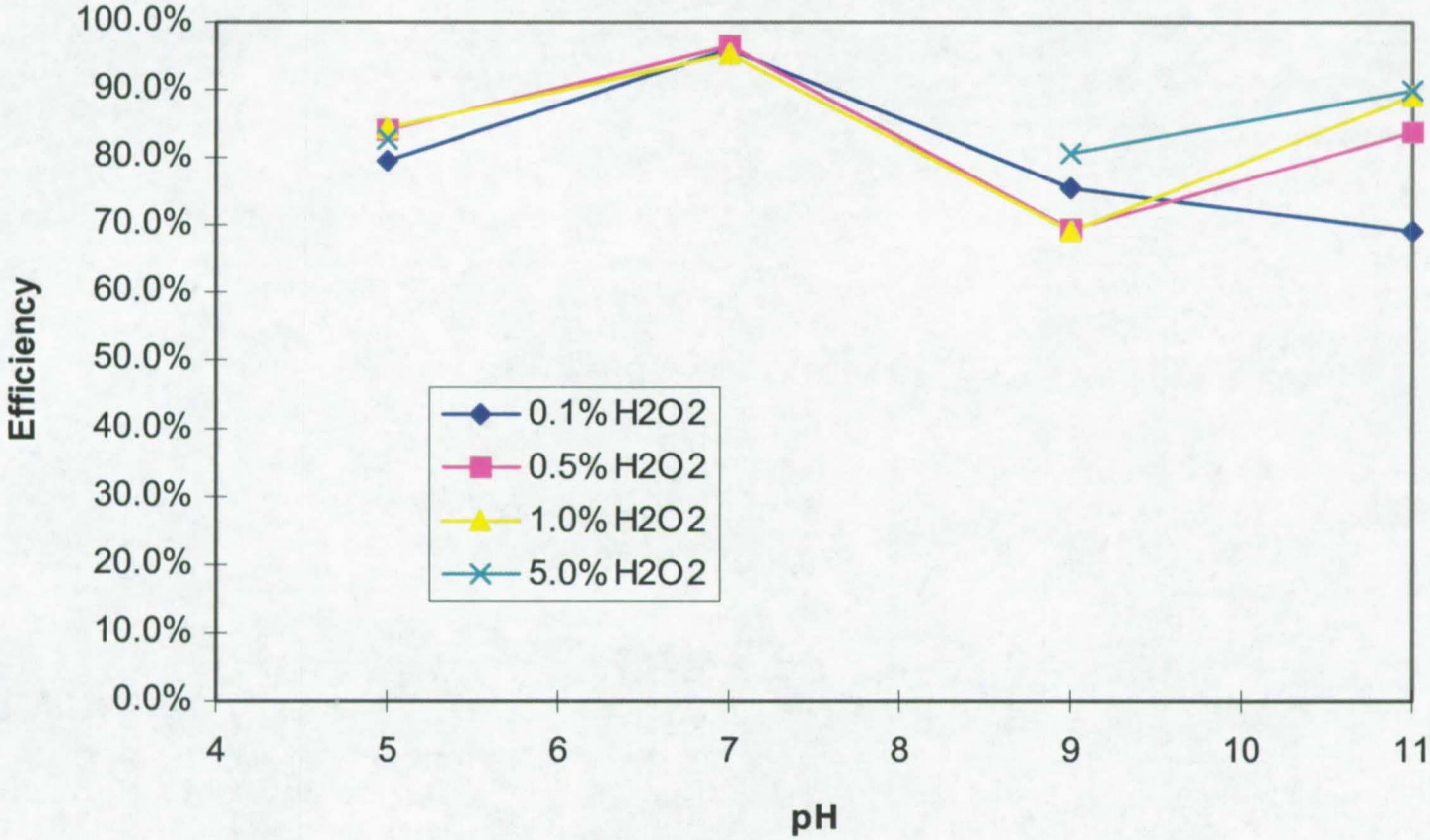
# Efficiency vs. pH for 1.0 % Hydrogen Peroxide Laboratory Tests



# Efficiency vs. Scrubber Liquors

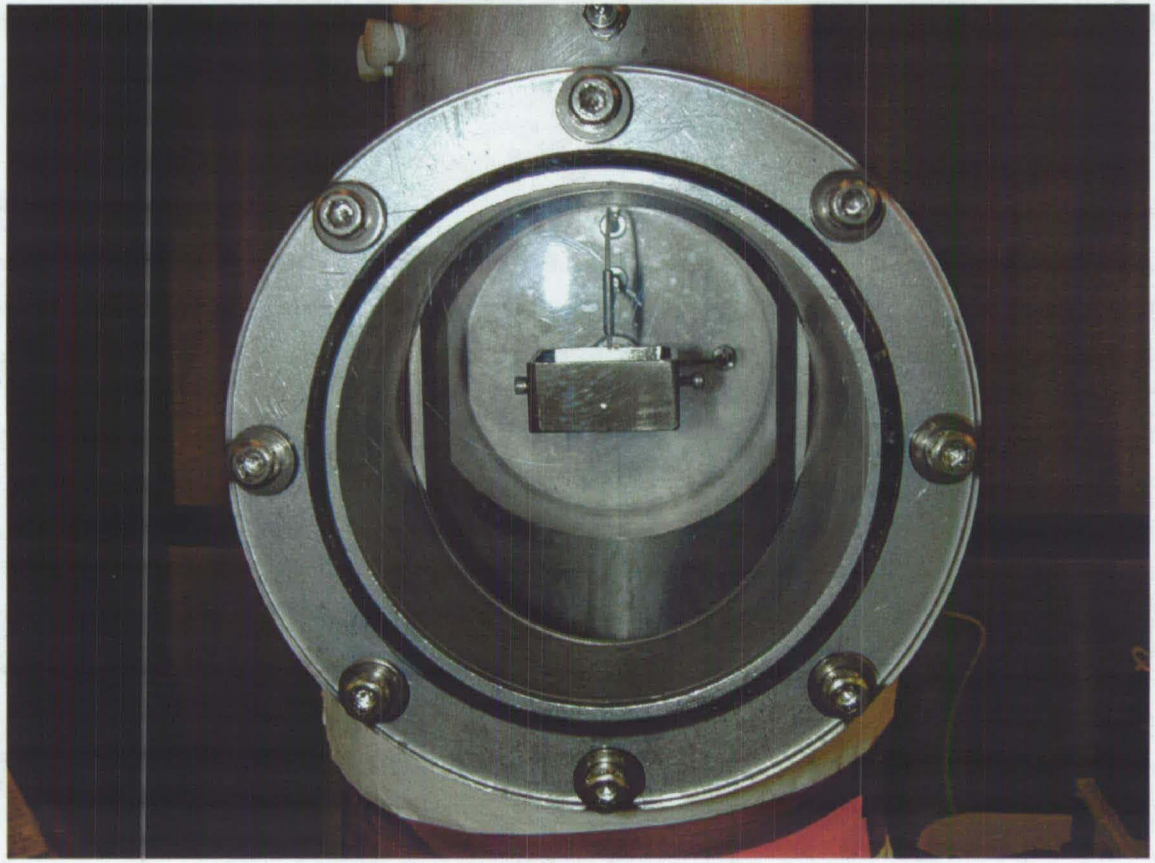


# Efficiency vs. pH at Various Peroxide Concentrations

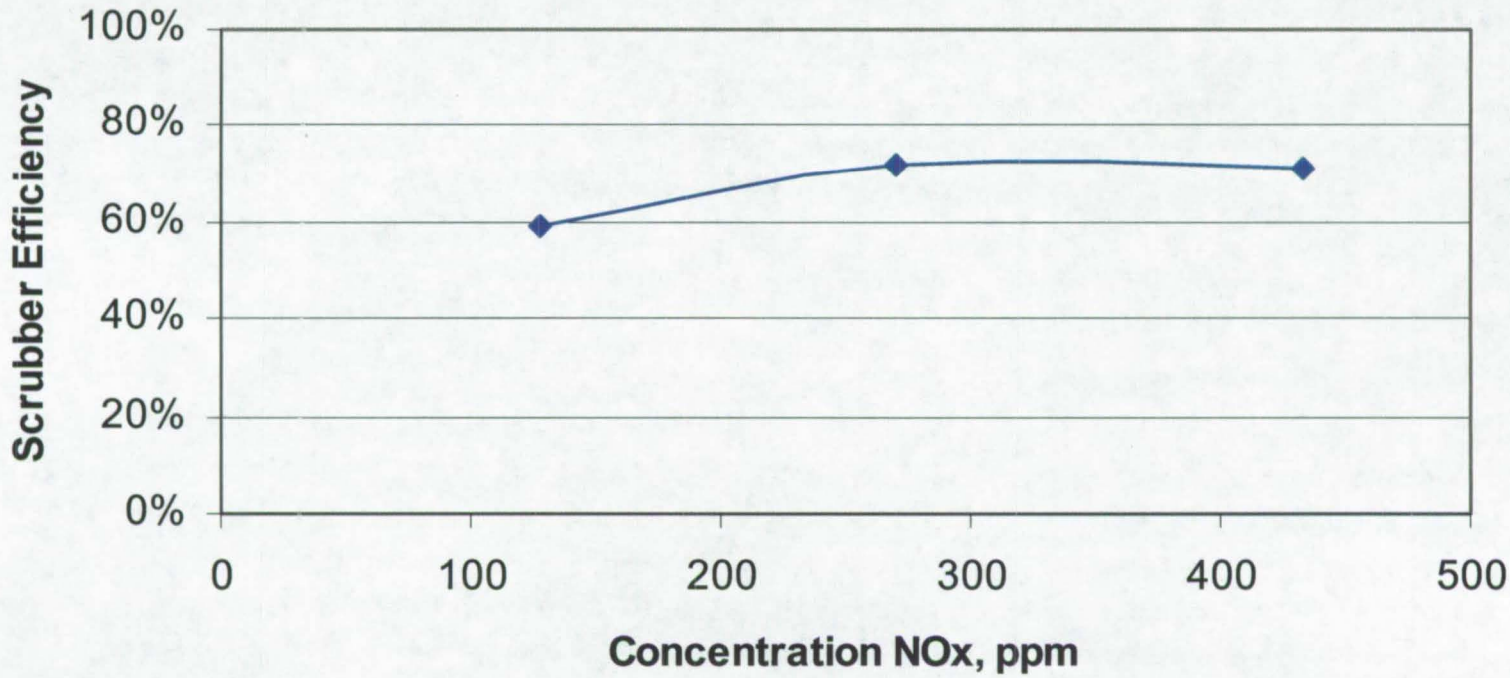


# NO Oxidation Testbed

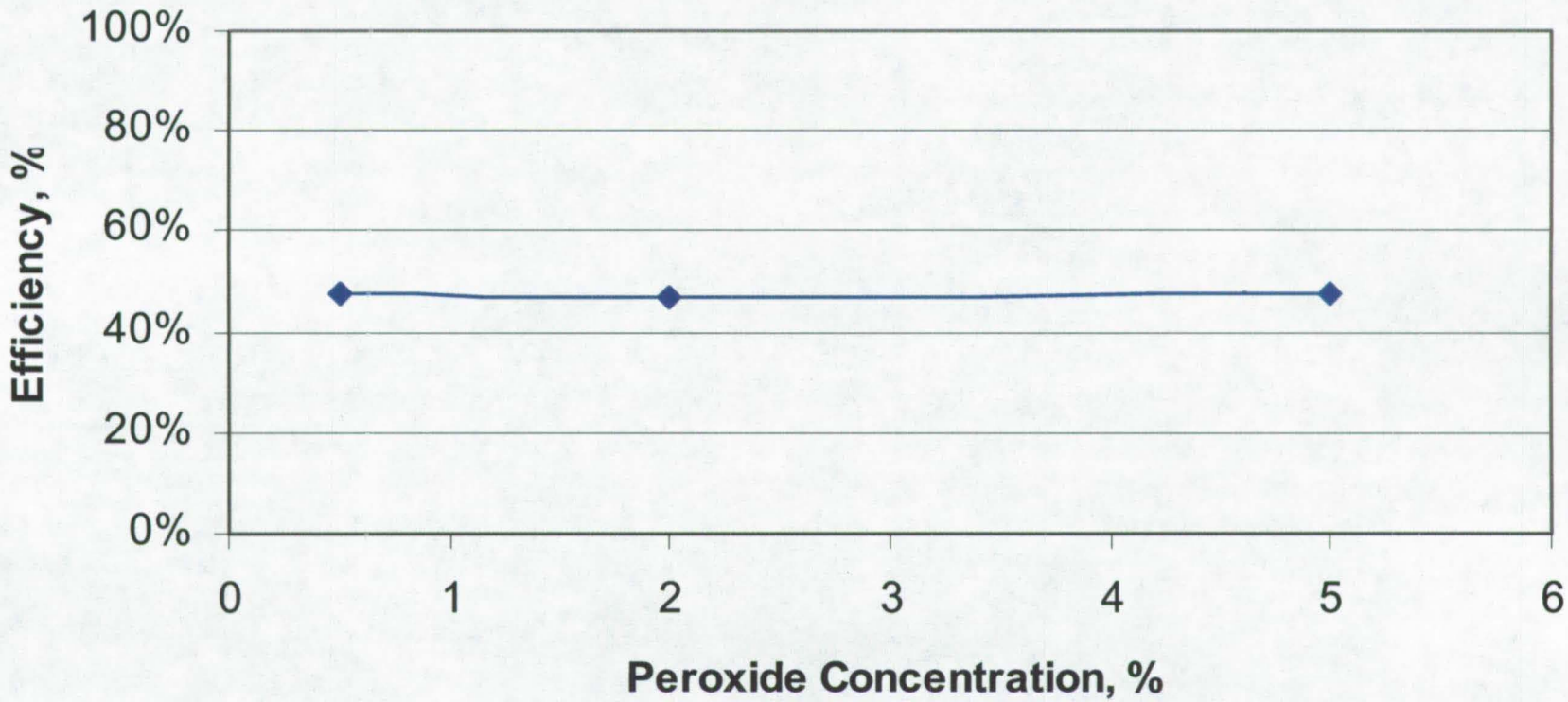
# Catalyst Support



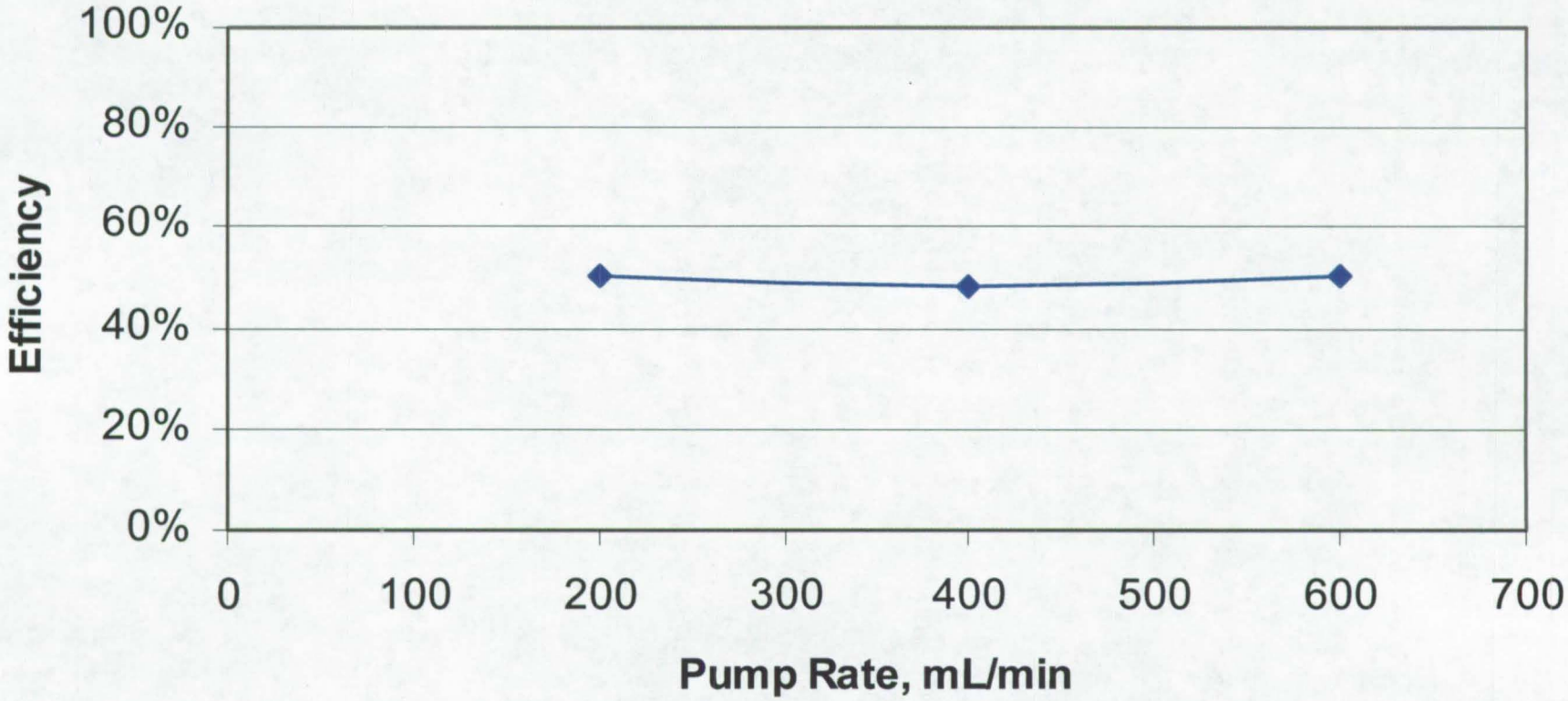
# Efficiency vs. $NO_2$ Concentration



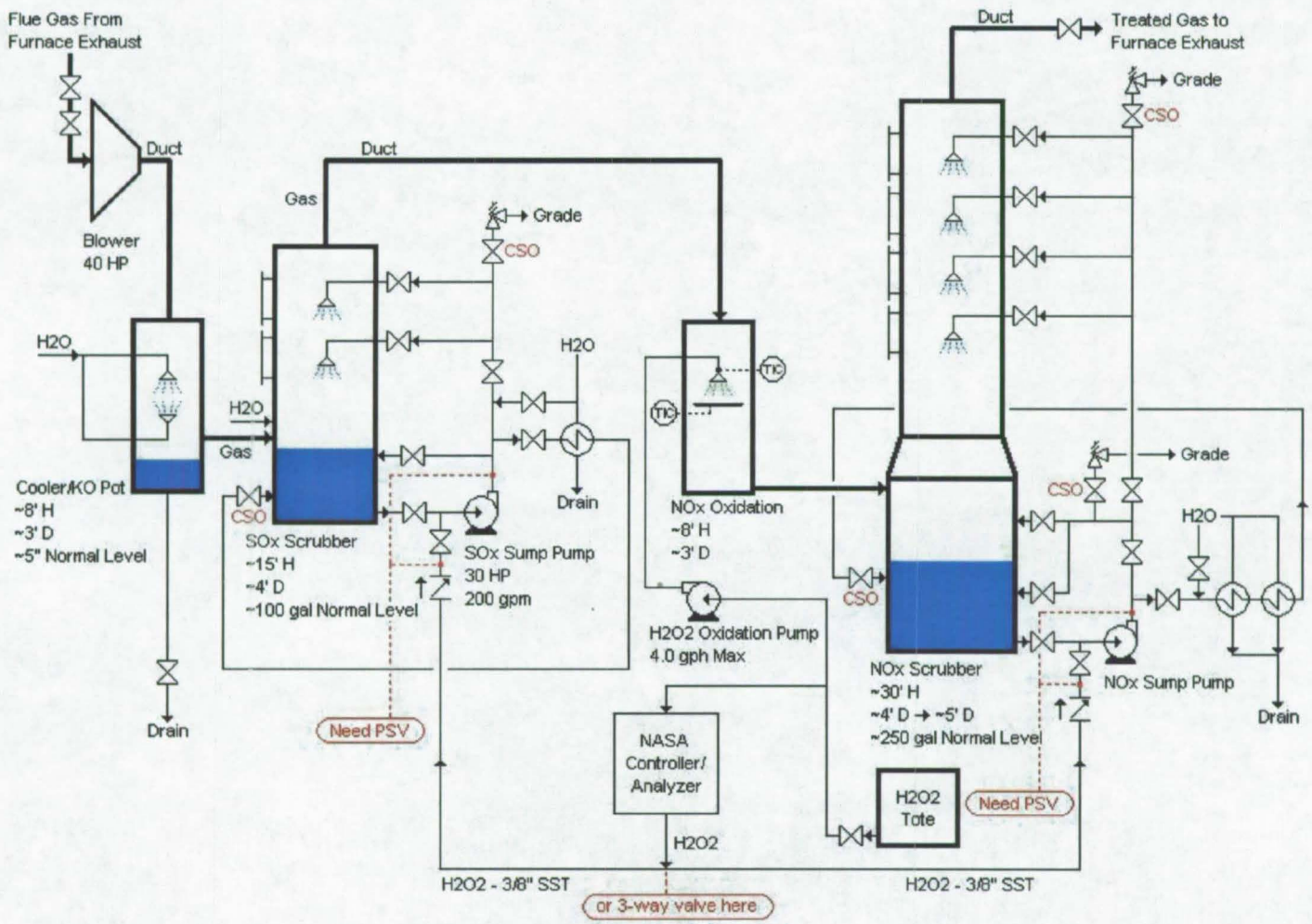
# Hydrogen Peroxide Concentration vs. Scrubber Efficiency



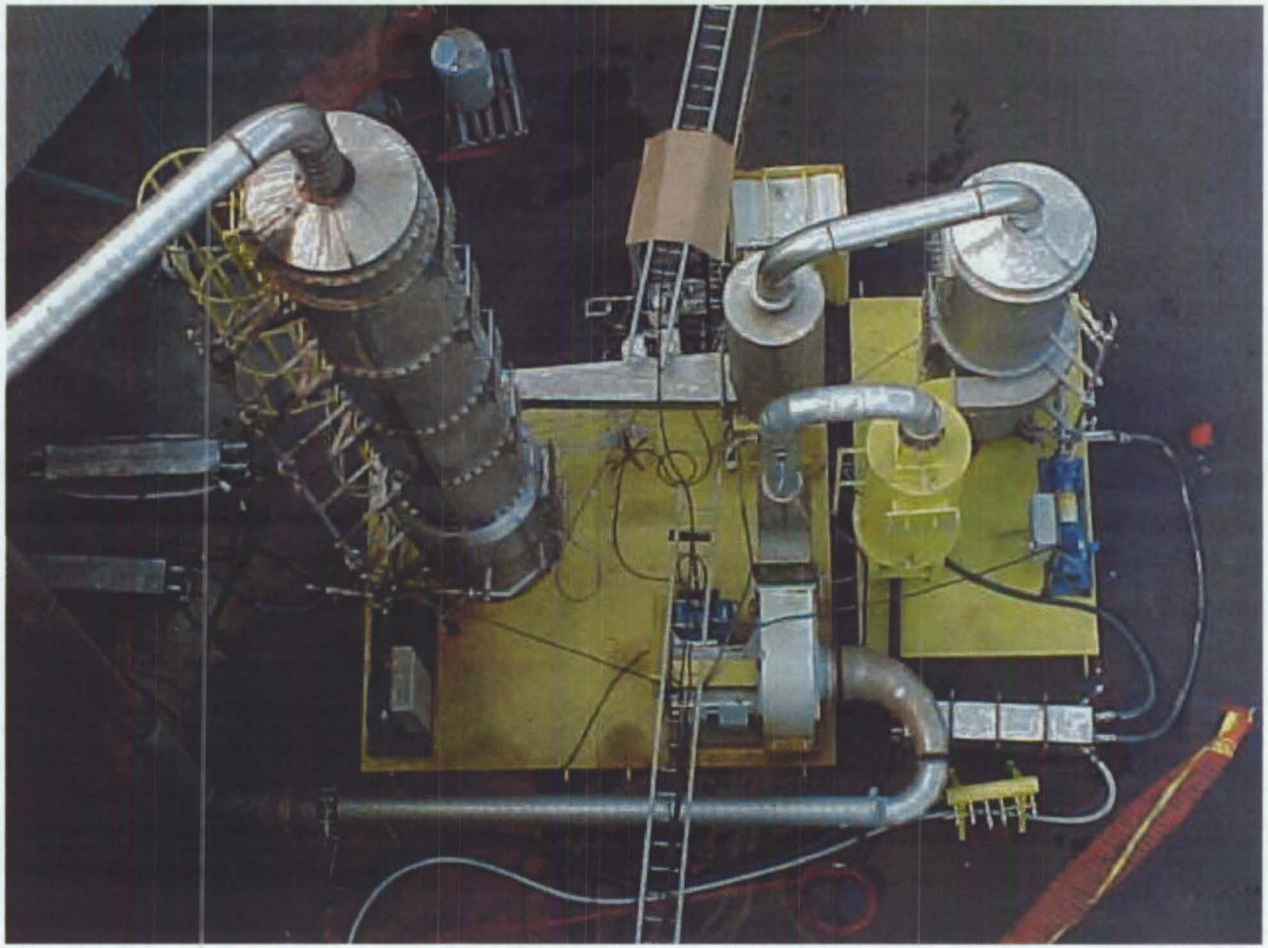
# Efficiency vs. Scrubber Pump Rate



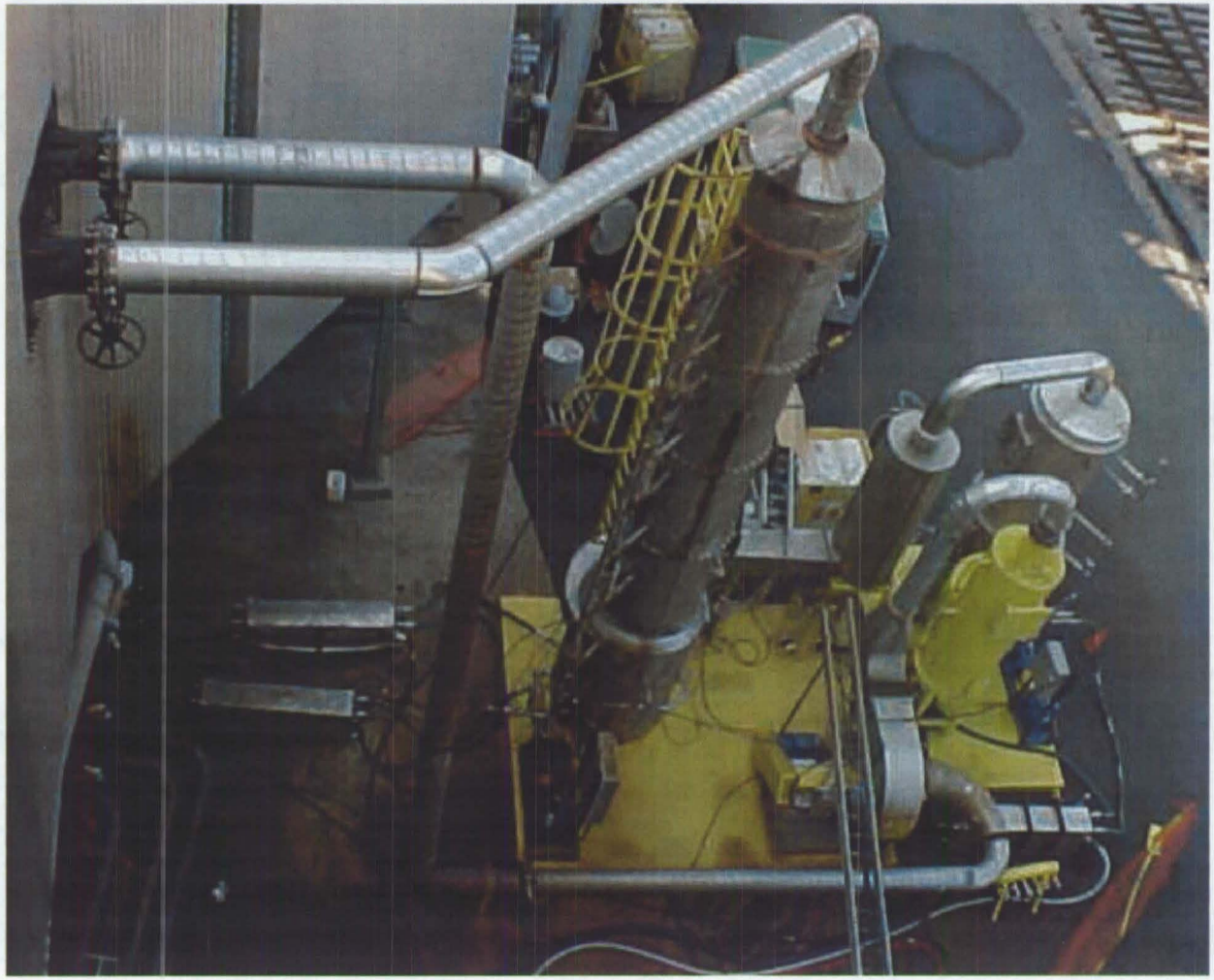
# Pilot Plant Installation



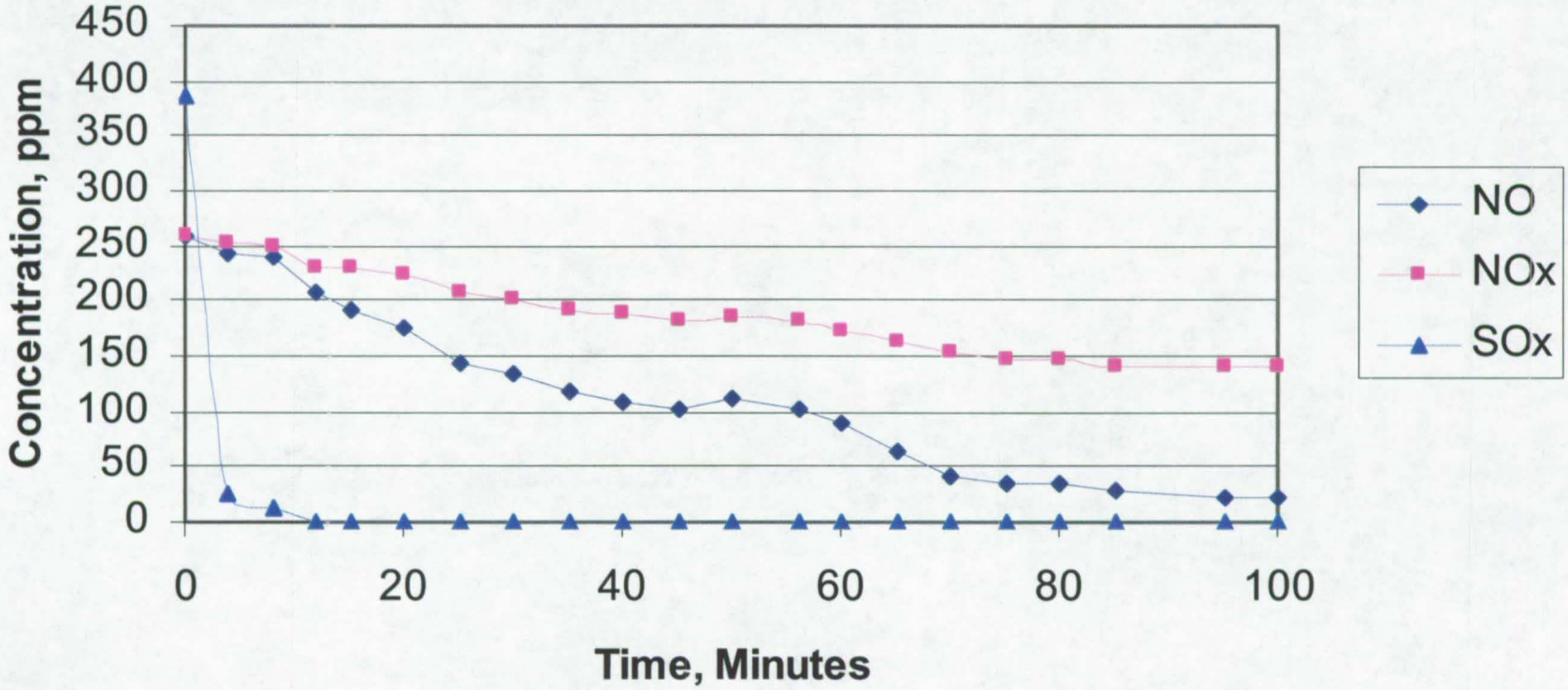
# Top View Pilot Plant



# Initial installation of Pilot Plant



# Pilot Plant Results
# SOx Scrubbing and NO Oxidation



# Phoenix Systems International, Inc

- Company Information
- Licensing Experience
- NASA Support
- Patent Protection
- Value of NASA Commercialization Efforts
- Teaming with Other Organization