Public Hearing
Bethune Point Wastewater Treatment Plant
City of Daytona Beach, Florida
December 14, 2006
Agenda

• Investigators’ Report
• Expert Panel
• Public Comment
Investigators’ Report

• The Incident
• Investigation Overview
• Incident Animation
• Major Findings
• Board Questions for Investigators
The Incident

• January 11, 2006
• Methanol Tank Explosion and Fire
• Two Workers Died
• One Worker Critically Injured
The Incident
Investigation Overview

• Began January 13, 2006

• Investigation Elements
  – photo documentation
  – interviews
  – physical evidence collection
  – documentation review
  – similar incident review
  – regulatory analysis
Investigation Overview

• Full Cooperation of City Departments
  – Fire
  – Police
  – Utilities
  – Support Services

• Assistance and Cooperation of State Fire Marshal’s Office
Major Findings

• Severely Corroded Flame Arrester
• Improper Use of Plastic Piping
• Ineffective Safety Programs
• Other Chemical Incidents In Florida
• Lack of Public Employee Safety Coverage
Flame Arrester
Flame Arrester

- A safety device that prevents ignition inside a tank from an external fire
Flame Arrester
Flame Arrester
Flame Arrester

- Flame arrester was made of aluminum
- Methanol is known to corrode aluminum
- City unaware of the need to clean & inspect
- Flame arrester was not cleaned or inspected since its installation in 1993
Plastic Pipe
Plastic Pipe

• Camp Dresser & McKee specified plastic pipe and valves for the Methanol System

• NFPA 30 “Flammable and Combustible Liquids Code” requires tank valves and their connections to storage tanks be steel
Plastic Pipe

- OSHA Standard 1910.106 “Flammable and Combustible Liquids” allows plastic pipe only when “necessary”

- Since:
  - the tank was steel
  - steel pipe is commonly used for flammable liquids
  - methanol is compatible with steel

- Plastic pipe was not “necessary”
Bethune Point Safety Programs

- Right-to-Know or Hazard Communication training program
  - only 7 sessions in 12 years
  - not since 2002
  - no training on methanol hazards
Bethune Point Safety Programs

Year

Training Sessions

Bethune Point Safety Programs

• Hot work (welding, torch cutting, grinding) is a recognized workplace hazard

• No city program written or otherwise existed to control hot work
Florida Public Facility Incidents

- Public employees do many of same hazardous work as private sector

- 34 Chemical incidents at Florida public facilities in last 5 years resulting in:
  - 2 Fatalities
  - 10 Injuries
  - 23 Medical evaluations for exposure
  - 16 Community and/or facility evacuations
Public Employee Safety

- Public employees are exempt from coverage under the OSH Act of 1970
- States have an option to provide coverage for public employees.
States With Federally Approved Public Employee OSHA Coverage
Public Employee Safety

- Florida had a non-federally approved public employee program and Right-to-Know law

- The programs were eliminated in 2000
Public Employee Safety

Executive Order (No. 2000-292 September 25, 2000)

- **State Departments**: “directed to voluntarily comply” with OSHA standards

- **Cities, Counties**: “requested to review existing policies, practices and procedures …and implement any…made necessary by the repeal…”
# Public Employee Safety

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Public Employee Safety

• Florida Consultation Program offers health and safety assistance to private small business owners

• The program is not allowed to offer any consultation to Florida’s public employers
Board Questions

• Questions for Investigators
Panel Discussion

• American Federation of State, County and Municipal Employees

• American Industrial Hygiene Association

• American Society of Safety Engineers
Board Questions

• Questions for Panel