Citigroup Smith Barney 16th Annual Chemical Conference

James S. Sawyer
Senior Vice President and CFO

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Forward Looking Statements

This document contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are based on management’s reasonable expectations and assumptions as of the date the statements are made, but involve risks and uncertainties. These risks and uncertainties include, without limitation: the performance of stock markets generally; developments in worldwide and national economies; the cost and availability of electric power, natural gas and other raw materials; the ability to achieve price increases to offset cost increases; the degree of inflation in wages and other compensation; the ability to attain expected operational efficiencies; changes in foreign currencies and interest rates; continued timely development and market acceptance of new products and applications; the impact of competitive products and pricing; the impact of changes in financial accounting standards; the impact of tax and other legislation and government regulation in jurisdictions in which the company operates; the cost and outcomes of litigation; future financial and operating performance of major customers and industries served; and the effectiveness and speed of integrating new acquisitions into the business. These risks and uncertainties may cause actual future results or circumstances to differ materially from the projections or estimates contained in the forward looking statements. The Company assumes no obligation to update or provide revisions to any forward-looking statements in response to changing circumstances.
Operating Philosophy

- **Focus on 11 core geographies**
  - Optimize co-product economics
  - Build to leverage regional density

- **Fuel growth platforms**
  - Refinery hydrogen
  - Healthcare
  - China, India
  - Enhanced oil and gas recovery

- **Drive operational excellence**
  - Applications growth
  - Pricing, contracting
  - Six Sigma, productivity

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ROC = Net Operating Profit After Tax / Average Capital

**2004 ROC %**

- **Praxair**
- **Average of Industrial Gas Peers**

Source: Bloomberg and company reports
Diverse End Markets

2005F Sales Growth 15 -16%

End Markets

- Aerospace: 4%
- Healthcare: 11%
- Manufacturing: 21%
- Energy: 12%
- Electronics: 7%
- Metals: 16%
- Food and Beverage: 7%
- Chemicals: 10%
- Other: 12%

Sales Growth

- Energy
- Healthcare
- Metals
- Other
- Chemicals
- Manufacture
- Electronics
- Aerospace
- Food & Beverages

Customer diversity delivers growth and stability
Applications Technology Drives Growth

Growing at an increasing multiple of IP
Higher energy efficiency
- 10-15% fuel savings

Higher throughput
- 10-20% increase

Less emissions
- 80-90% NOx reduction

PX will commercialize 20+ new application technologies in 2005
“Terms of Trade” Drive Return on Capital

**On-Site/Pipeline Supply - 25%**
- 15 year take or pay contracts
- Escalation formulas – Electricity/Gas, Inflation, Currency exposure
- Price recovers fixed and capital costs

**Merchant Liquid Supply - 29%**
- 5 year requirements contracts
- Sourced as by-product from on-site
- Limited distribution range – 200/250 miles

**Packaged/Medical Gases - 33%**
- Cylinder and equipment rental
- 40% gases revenues under contract
- Sourced as by-product from bulk

**Pricing leverage – small fraction of customers’ costs**
Hydrogen

- Refineries re-tooling for heavy crude
- Capacity expansion
- Low sulfur fuel regulations
- Outsourcing hydrogen supply
- Canadian synthetic crude

Source: EIA and PX estimates

Expect 20% p.a. growth through 2010
US Rockies rig count has increased 75% since 2002

CO₂ and N₂ widely used to fracture low permeability formations during well completion

Praxair best positioned
- Location
- Expertise
- Relationships

Additional pipeline services

$200 MM revenues expected to grow 25% p.a.
Enhanced Oil Recovery Projects

**PEMEX Samaria Oil Fields**
- >6500 TPD of nitrogen injection
- N₂ injection and new wells expected to recover additional 470 MM barrels of oil and 540 BCF of natural gas through 2018
- Start-up Q1 2007

**Occidental Petroleum**
- 1100 TPD N₂ nitrogen injection
- Start-up Q2 2006

Long term potential to recover 120 B barrels of oil in NA
Electronics

- **Materials Science for 300mm**
  - Thin film metal deposition: PVD, CVD, & ALD
  - CMP consumables: pads, slurries
  - Advanced components

- **Supply Chain Services**
  - Generic components
  - Parts management

- **Electronic Gases**
  - On-site high purity gases
  - Select specialty gases
  - Expansion in Asia

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**Investment focus on high growth, high return segments**
Healthcare

- North America - 64%
- South America - 20%
- Europe/Asia - 16%

Service Offerings
- Homecare – 60%
  - Home oxygen
  - Sleep therapy
- Hospital – 40%
  - Oxygen supply systems
  - Analytical gases

Industry Outlook
- Organic growth of 6-8%
- Industry consolidation
  - US Homecare

Strong non-cyclical organic growth and low capital intensity
Achieving growth through solutions selling
North American Packaged Gases

Sales per Day

Strong growth continues
Increasing Productivity Gains

Sources of Cost Savings

◆ Leverage procurement

◆ Drive operations efficiency
  – Per unit power consumption
  – Volume/trip
  – On-stream reliability

◆ Utilize six sigma
  – Operations
  – Business processes
  – Customer interface

Six Sigma # of projects and % of workforce trained

$160MM planned productivity savings in 2005
Process Engineering Lowers Capital Costs

Cryogenic High Purity Oxygen

Flawless execution assures that expected returns will be achieved

2004 Plant Projects Variance From Budget

- Cost: -3%
- Schedule: +1%
- Power Efficiency: +1%

Plant Capacity - TPD

100 300 500 700 900 1100 1300 1500 1700

2004

1996

Unit Cost

100 300 500 700 900 1100 1300 1500 1700

400 600 800 1000 1200 1400 1600 1800
## Global End-Market Trends

### Q305 YOY Sales Growth

<table>
<thead>
<tr>
<th>Sector</th>
<th>YOY Growth</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>+10%</td>
<td>Strong growth continues in North and South America</td>
</tr>
<tr>
<td>Metals</td>
<td>+1%</td>
<td>US volumes 20% lower YOY, but improving vs. Q2.</td>
</tr>
<tr>
<td>Energy</td>
<td>+8%</td>
<td>+11% ex-hurricanes. Q3 impacted by refinery outages in North America.</td>
</tr>
<tr>
<td>Healthcare</td>
<td>+2%</td>
<td>Organic US homecare volume growth of 7%* partially offset by reimbursement rate cuts</td>
</tr>
<tr>
<td>Chemicals</td>
<td>+10%</td>
<td>Growth in all regions despite Gulf Coast hurricane impact</td>
</tr>
<tr>
<td>Electronics</td>
<td>+2%</td>
<td>11% volume growth in Asia for LCD and semiconductors offset by lower US volumes and price erosion</td>
</tr>
<tr>
<td>Food and Beverage</td>
<td>+3%</td>
<td>Strongest growth in South America and Asia</td>
</tr>
<tr>
<td>Aerospace</td>
<td>+5%</td>
<td>Improving OEM markets</td>
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* ex-hurricanes
Positive Business Outlook

♦ Refinery hydrogen and oil and gas well services continue to grow rapidly

♦ Business capital spending strong, continued strength in heavy manufacturing

♦ Steel industry is past the 2005 inventory correction

♦ Healthcare reimbursement cuts largely behind us

♦ Six Sigma and productivity initiatives on track for $160MM savings in 2005

♦ Substantial new business on stream in 2006 and 2007 – over 25 new projects

But keeping a watchful eye on the economy
EXECUTION!

EXECUTION!

EXECUTION!
Principles of Sustainability

Governance and Integrity
Foster a culture of integrity and accountability throughout the company through rigorous compliance with all laws, and by establishing and following effective corporate governance practices.

Customer Commitment
Continuously develop new products and applications that help our customers improve their productivity, energy efficiency and environmental performance. Provide the highest levels of service, reliability and quality to our customers.

Environmental Responsibility
Continue to improve the efficiency of energy consumption. Reduce the intensity\(^1\) of air emissions, including greenhouse gases.

Employee Safety and Development
Maintain a safe work environment with a goal of zero accidents. Provide training and career opportunities that allow employees to develop to their fullest potential. Increase the diversity of our workforce so that it is more representative of the communities in which we operate.

Community Support
Help to improve the welfare and future of the communities in which we operate by sharing our knowledge, expertise and resources related to environmental protection, and community health, safety and security.

Financial Performance
Continuously improve our financial performance and provide attractive returns to our shareholders. Generate operating cash flow to reinvest in business growth and pay dividends.

\(^1\)Intensity is per-unit-of-production measure