Forward Looking Statements

The forward-looking statements in this presentation concerning revenue, earnings, return on capital, volume, growth, economic growth rates, stock price performance, and the value of future product and service offerings involve risks and uncertainties, and are subject to change based on various important factors. These include the impact of changes in worldwide and national economies, availability and cost of power and other energy materials and the ability to recover these costs, pricing fluctuations in foreign currencies, changes in interest rates, the continued timely development and acceptance of new products and processes, the impact of technologies, competitive products and pricing, and the impact of tax and other legislation and regulation in the jurisdictions in which the company operates.
Financial Excellence

**TSR - 5 years**

- **Praxair**: 17%
- **Industrial gas competitors**: 3%
- **S&P Mat**: 5%
- **S&P**: -2%

**TSR - 1 year**

- **Praxair**: 28%
- **Industrial gas competitors**: 17%
- **S&P Mat**: 26%
- **S&P**: 16%

*Values as of 12/01/03*

*Relative outperformance has continued*
Is the North American Economy Improving?

Yes... but how long will it last?
### Leverage To Improving U.S. Economy

<table>
<thead>
<tr>
<th>2000 to 2002 ($MM)</th>
<th>North American Industrial Gases</th>
<th>Surface Technologies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lost Sales Volume</td>
<td>≈ (285)</td>
<td>(42)</td>
<td>(327)</td>
</tr>
<tr>
<td>Lost Operating Profit</td>
<td>≈ (100)</td>
<td>(20)</td>
<td>(120)</td>
</tr>
<tr>
<td>Lost EPS</td>
<td>≈ ($0.50)</td>
<td>($0.10)</td>
<td>($0.60)</td>
</tr>
<tr>
<td>Lost NOPAT ROC</td>
<td>≈</td>
<td></td>
<td>(1.5%)</td>
</tr>
</tbody>
</table>

*Praxair’s U.S. merchant capacity utilization declined from 85% to 75% from 2000 to 2002. When this recovers, Praxair has substantial upside earnings potential.*
Operating Model Drives Growth and ROC

Applications Technology
Customer Value

Growth
Return on Capital

Efficient/Reliable
Low Cost Supplier
Commercial Terms
Capture Value

North American Sales versus Industrial Prod.

2002 Sales by Distribution Method

Merchant 33%
On-Site 23%
Packaged 33%
Other 14%

Unit Cost of Production

Indexed unit cost of prod. (capital and power)

1996 Plants
2002 Plants

Plant size (tons per day)

PX NA Sales
IP
IP: Manuf. ex hi-tech
Growing Hydrogen Use in Gasoline and Diesel Production

Hydrogen Used Per Barrel of Oil (Standard Cubic Feet)

2001
- 200
- Base Demand
- 280
- High Sulfur Crude
- 480 SCF/BBL

2006
- 200
- Base Demand
- 345
- 50
- 50
- 645 SCF/BBL

2010
- 200
- Base Demand
- 50
- 50
- 700 SCF/BBL

Source: Praxair Estimate
Praxair Gulf Coast Customers are the Most Hydrogen Intensive

- **Approximately 200 MMSCFD of additional hydrogen volume to be awarded.**
- **We expect to win the majority.**

### Praxair Customers in PADD3

<table>
<thead>
<tr>
<th>EDC MBPD</th>
<th>% of PADD 3</th>
<th>% of US</th>
</tr>
</thead>
<tbody>
<tr>
<td>47,233</td>
<td>61.10%</td>
<td>30.90%</td>
</tr>
</tbody>
</table>

*Equivalent Distillation Capacity “EDC” *
North American Healthcare Growth

Expected Growth Rates:
Organic Growth
- Institutional 6%
- Homecare 7%
New Starts 3%
Total 9%

Acquisition Discipline
- High % respiratory oxygen business
- Geographic overlap
- Strong compliance orientation
- Government reimbursement cuts of 15%
- Bad debt expense of 5%

Hospital to Home and selective acquisitions will drive overall sales growth
U.S. Homecare Reimbursement

**Proposed Legislation**
- 3-22% reimbursement rate cuts on selected services
- Rate freeze till 2007
- Competitive bidding in 2007

**Potential Praxair Impact**
- US Homecare Sales: $140MM
- Payor: Government: 38%
- Business Mix:
  - Respiratory Oxygen: 66%
  - HME: 22%
- Affected Sales: $46MM
- Potential Price Reduction: 20%
- Potential OP Impact: $9MM

*American Association for Homecare 2003 Survey*
Electronics - Focus on Materials Science and Services

♦ Broad portfolio of industrial gases and services
  – atmospheric gases
  – semiconductor process gases
  – site gas and chemical management
  – gas delivery systems

♦ Capabilities that differentiate Praxair
  – extended life sputtering targets
  – electrostatic chucks
  – in-fab component logistics

♦ Products under development
  – CMP - H.C. Starck/Bayer alliance enhances customer solutions
  – Supercritical CO₂ - 5 systems in operation

*Increasing customer productivity by lowering cost of ownership*
Capturing Value from Technology Licensing

♦ **Productivity Applications**
  ◆ **Industry credibility licensing metals technologies**
    – Success with penetrating AOD Stainless Steel and EAF CoJet® markets
    – BOF CoJet® market opportunity 500 MM tons
      – 2 installations US, 2 licenses SA

♦ **Environmental Solutions**
  ◆ **Reduced NOx emissions from coal fired utilities**
    – Controlled oxygen injection is low cost solution
    – EPA mandate in 19 states
    – Full compliance by 2005; additional reductions by 2008
    – Target market is boilers below 500 MW
      – first commercial installation
China Key Business Ventures

**Semiconductors**
- Shanghai’s Zhangjiang High-Tech (Z-J Park)
  - 15 year contract to SMIC
  - 15 year contract to ACE Semiconductor Co.
- Gas supply for SMICs new 300mm wafer fab in Beijing technology park

**Chemicals**
- SCIPIG - Praxair/Air Liquide 50/50 Joint Venture
  - Signed contracts with BASF and BP/Shanghai Petrochemical for H₂ and N₂
  - HYCO contracts to supply SLIC and SBPC chemical plants

**Steel**
- Shaoguan Iron and Steel
- Meishan Iron and Steel
- Baoshan Iron and Steel

![China Crude Steel Production](chart)

*China Crude Steel Production (MM Metric Tons)*
China - Profitable Growth

Investment and Return on Capital

Improving return on capital
Robust Cash Flow Generation

- Significant reduction in capital spending
- Commitment to less capital intensive growth platform
- Uses of free cash flow
  - Dividends
  - Debt reduction
  - Selective acquisitions
  - Share repurchases

Free Cash Flow 1996-2003E ($MM)

(1) Non-GAAP measure. Free cash flow equals operating cash flow minus capital expenditures.
(2) Excludes Leased Asset Purchase
Smith Barney Citigroup
14th Annual Chemical Conference

December 3, 2003

Dennis H. Reilley
Chairman, President and CEO

www.praxair.com