

Questions

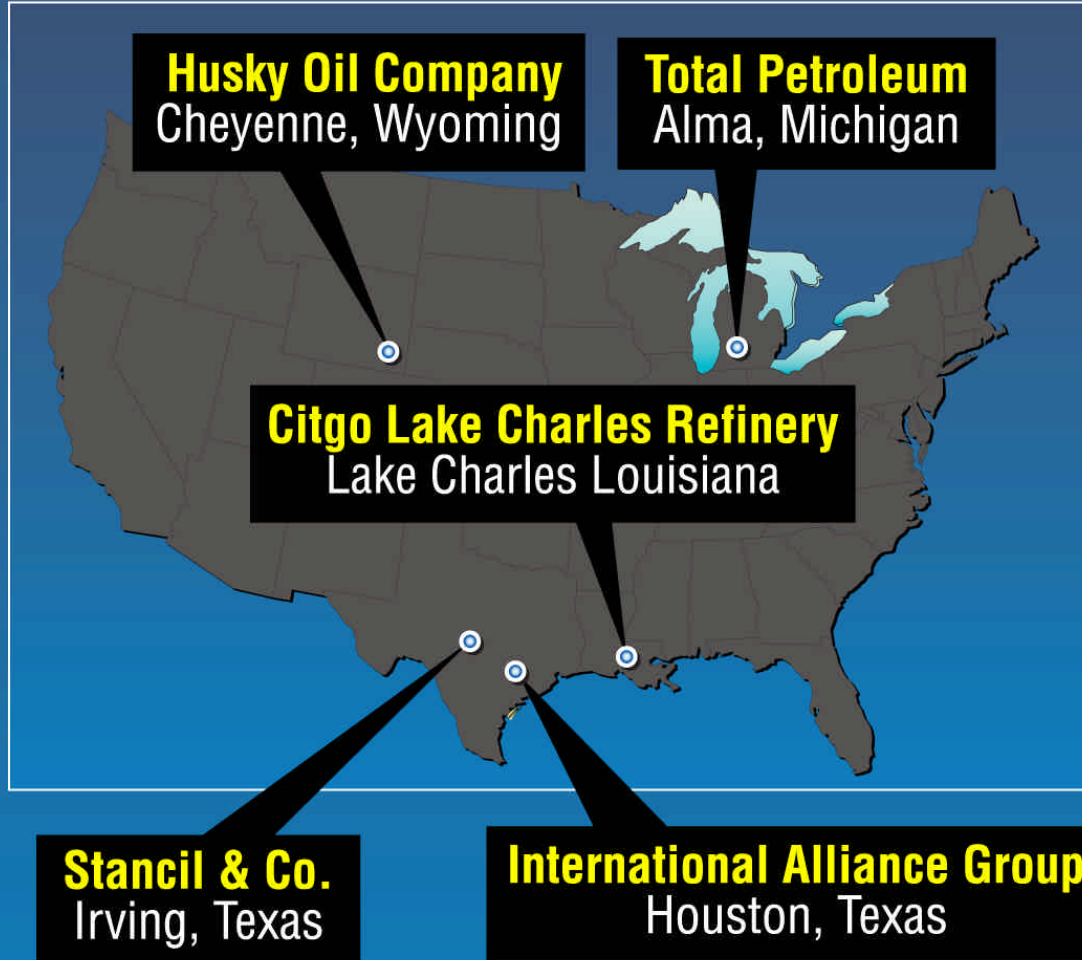
- ① Was the crude tower collapse preventable?
- ① What is the reasonable rebuild cost, assuming no tower collapse?
- ① What is the reasonable time to rebuild, assuming no tower collapse?

Tom Schneider's Experience

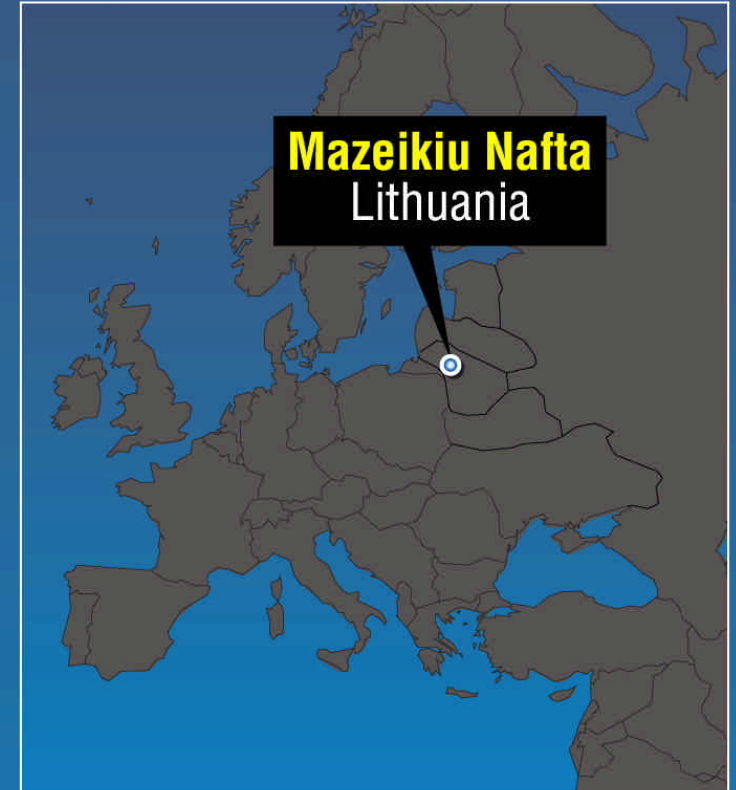
- Process engineering and Operations management
- Managed refinery construction and turn-arounds
- Negotiated refinery construction contracts
- Refinery management and oil company president
- **Refinery consulting**

Tom Schneider's Work Experience

United States



Europe



Estimating Costs: The Five Steps

1. Site Preparation
2. Major Equipment
3. Engineering, Purchasing, and Construction (“EPC”)
4. Unknown Scope of Project
5. Start-up and Commission

Tom Schneider's Fire and Repair Experience

- **Cat. Cracker Fire – Citgo Lake Charles Refinery**
- **Crude Unit Fire – Husky Oil Refinery**
- **Crude Unit Fire – Total Petroleum Refinery**
- **Alkylation Unit Fire – Total Petroleum Refinery**
- **Charge Furnace Fire in the Crude Unit – Mazeikiu Nafta**

Conclusions

- **Was the crude tower collapse preventable?**
The collapse of the atmospheric tower was preventable, and Citgo failed to prevent it.
- **What is the reasonable rebuild cost, assuming no tower collapse?**
The reasonable cost to repair the damage for the August 14, 2001 fire was \$141.5 million.
- **What is the reasonable time to rebuild, assuming no tower collapse?**
The reasonable schedule to repair the damage for the August 14, 2001 fire was 27 weeks.

James Conroy

Opinions About What a Prudent Oil Refinery Owner Should Do:

- To check Chromium content of new alloy piping in 1982
- To check elbows after notice of alloy mix in 1982
- To inspect alloy piping from 1982-2001

*Factors: API 570 and 574
 Refinery practice in 420 lines
 Granot testimony
 Adjust for crude slate changes*

James Conroy

Education and Experience

- **1976** B.S. Materials Engineering – Drexel
- **1977-79** Research Metallurgist/Engineer
- **1979-80** Inspection Engineer – Getty Oil
- **1980-88** Materials Engr./Inspection Supervisor – Mobil Oil
- **1988-Present** Conroy Engineering Co.
- **1994** API 510 Certified

James Conroy

Work Done in This Case

- Review refinery inspection records
 - General policies
 - VTB inlet line
 - 420 other lines
- Review depositions (Granot, Miller, Kielma et al.)
- Visit refinery
- Visual and laboratory analysis of metallurgy
 - Citgo/EWI
 - Thielsch/Conroy
- Study API and technical literature
- Review Citgo UT results 9/18/06