BP Oil Tragedy

What Went Wrong, Leadership Challenges
Background

- Since about 1950 in the U.S. Gulf of Mexico, 50,000 wells drilled, of which 4,000 in water depths of 1,000 ft. or more, and 700 in water depths of 5,000 ft. or more.

- Excellent performance with only 1,700 barrels of oil spilled in the last 40 years before the BP blowout and spill of 5 million barrels.

- In the Mexican side of GOM, Pemex, the national oil company spilled 3 million barrels 33 years ago.
 Lease and royalty payments to the U.S. government have totaled $200 billion and direct employment is 150,000.

- Gulf of Mexico oil production is 1.5 million barrels per day, 30% of U.S. production and natural gas is 10% of U.S. production.
“It Never Should Have Happened”
Tony Hayward, Former BP CEO
BP Macondo Well Just Before Blowout
DRILL PIPE

TOP KILL

SEA BED

Casing

Rams

BOP, 54' tall

A CLOUSE

Casing

Cement

7' Casing

Cement
Industry Back up if BOP Fails

$1 billion system, consortium of companies
After a 6 month moratorium on drilling in deep water to implement safer practices, drilling has rebounded to prior levels.

BP has spent $22 billion so far for clean up/restoration (progressing well) and for damages to businesses and individuals. Further payments including fines may add $15 billion.

BP has sued Transocean (rig operator) and Halliburton (cement), and they are suing BP.
Recommendations

- Companies must lead and train their employees to develop a strong safety culture: an attitude and belief that safety is most important in all that they do. No shortcuts, no lax procedures. It is ethical, protects lives and the environment, and averts human error. **A big leadership challenge.**

- Clear definition of approval authority and accountability, particularly for safety critical steps. **A big leadership challenge** in today’s decision making in teams. If everyone is in charge, nobody is in charge.

- R&D for much improved BOP design/reliability.
Recommendations (cont’d)

- Increase education and certification standards for critical rig supervisory positions. More in depth and realistic training for emergencies.

- Increased margins of safety: at least 2 shear rams, cement bond logs, cement specifications, standards for temporary abandonment, location of standby generator.

- Recommend the industry design for oil capture/well capping if BOP fails.
All Major Industrialized Nations Require Large Oil Imports

(millions of barrels per day)

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<th>Demand</th>
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<th>Imports</th>
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