Crisis, Policy Learning, and the Emergence of a Regime for Oil Spill Risks

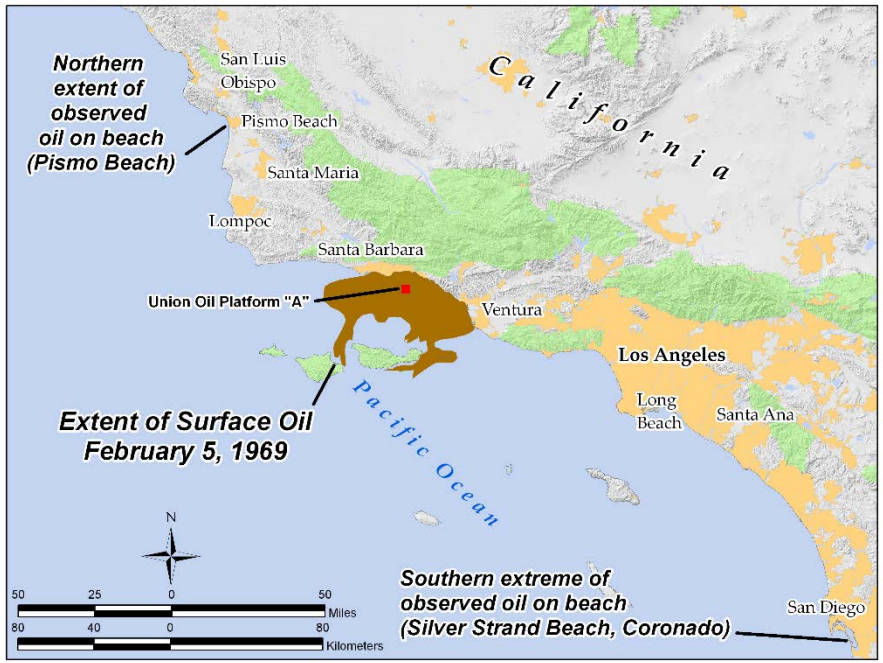
Marc Eisner
Henry Merritt Wriston Chair of Public Policy

WESLEYAN
UNIVERSITY

Overview

- Oil spill regime evolved over a period of decades following the crisis of the Santa Barbara spill (1969)
  - Expansion of liability
  - New funding mechanism for removal/remediation
  - Emphasized prevention and preparedness
- Evolution of risk management
  - Risk reallocation (risk spreading, risk shifting)
  - Risk reduction (command-and control, preventive focus)

Santa Barbara (1969)



"Half an inch deep and an untold hundreds of miles in length and breadth, a black blanket of crude oil was still riding the long Pacific swells, spreading death and destruction along the Southern California coastline."

—"Deadly Blanket of Blackness." *Los Angles Times,* February 9, 1969.

Existing regime

- Clean Water Restoration Act (1966)
  - Prohibited discharges on shorelines and navigable waters
  - Responsible parties to remove oil immediately
  - Minimal fines ($10,000) and liability caps ($5 million)
  - Federal government must prove gross negligence
- No government authority for immediate spill response

Water Quality Improvement Act (1970)

- Increased liability ($100 per gross ton or maximum of $14 million vessel/$8 million offshore facility
- Vessels over 300 tons required to maintain evidence of ability to meet potential liability
- Authorized the President to develop National Contingency Plan
- Absolute liability (“without regard to whether any such act or omission was or was not negligent”)

Clean Water Act (1972)

- Incorporated Water Quality Act into § 311 and extended to hazardous wastes
- EPA required to determine "those quantities of oil and any hazardous substances …which may be harmful to the public health or welfare."
- Created a revolving fund (the 311 Fund) in the U.S. Treasury
  - To be funded ($35 million) by appropriations and monies recovered
  - To finance cleanup before liable parties reimbursed government

Clean Water Act (1977)

- Liability extended to “any costs or expenses incurred by the Federal Government or any State government in the restoration or replacement of natural resources damaged or destroyed as a result of the discharge of oil.”
  - Vessels: $100→$150 per gross ton, no cap
  - Offshore facilities: $8 million→$50 million
- Jurisdiction was extended 200 miles offshore

Additional Statutes

- Trans-Alaska Pipeline Authorization Act (1973)
- Deepwater Port Act (1974)
- Outer Continental Shelf Lands Act (1978)
- Common features:
  - Strict liability
  - Required evidence of financial responsibility
  - Created funds to cover removal and remediation, financed via fees on the petroleum industry
- Risk management via risk shifting

A Policy Patchwork

- Four federal statutes, four separate funds
- State policies, a majority of which placed no limits on liability
- Political stalemate prevented uniform regime
  - Petroleum industry, shippers, and insurers supported uniform federal liability caps
  - Coastal states with unlimited liability blocked passage of laws that would preempt state laws in the Senate

Love Canal (1978-80)

"The profound and devastating effects of the Love Canal tragedy, in terms of human health and suffering and environmental damage, cannot and probably will never be fully measured...[w]e cannot undo the damage…but we can take appropriate preventive measures so that we are better able to anticipate and hopefully prevent future events of this kind."

—Robert P. Whalen, New York Commissioner of Health (1978)

Love Canal

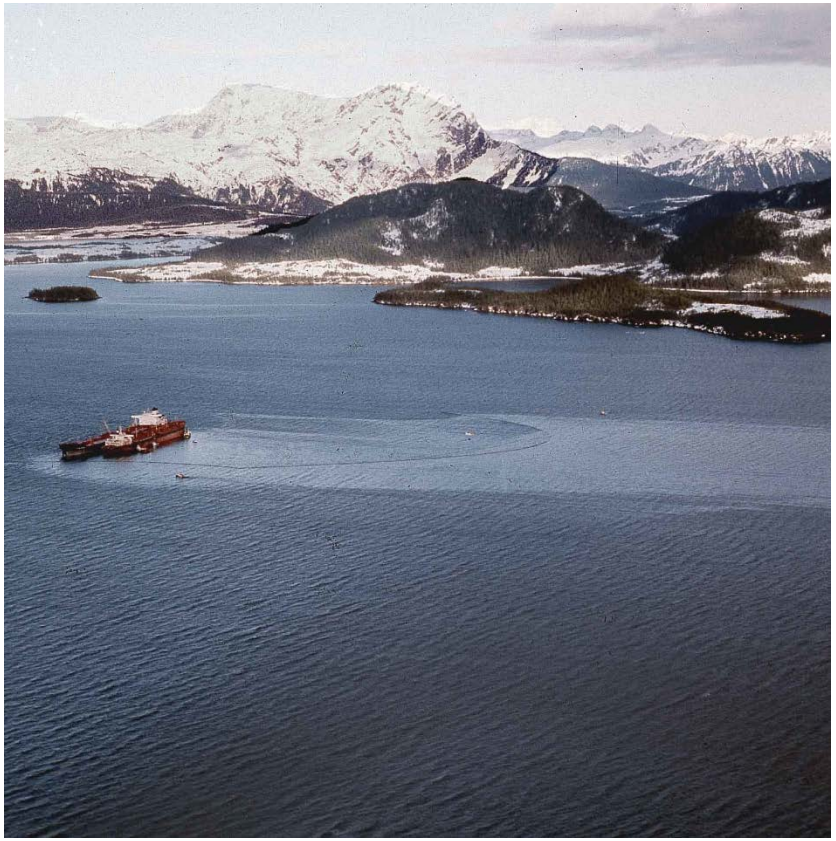
- Hooker Chemical Company had disposed of 21 thousand tons of toxic waste in a clay-lined canal
  - Mercury, benzene, chlorinated compounds and dioxins contaminated the ground water and the soil
- Niagara NY purchased land and permitted development (including a school, playground, and housing)
- Realization that statutory authority and funding for cleanup of hazardous waste sites were inadequate

Comprehensive Environmental Response, Compensation, and Liability Act (1980)

- CERCLA drew on the model adopted for oil spills
  - It expanded the National Contingency Plan to hazardous wastes
  - It created the Superfund, financed through appropriations ($1.6 billion) and tax on the petroleum and chemical industries
  - It adopted the liability regime in § 311 of the Clean Water Act and thus the risk-shifting strategy that had been applied to oil spills

  CERCLA did not extend the new regime to oil spills, although it was modeled, in part, on the oil spill regime

Exxon Valdez (1989)



"The Valdez spill, with its dramatic television footage of a huge and grotesque environmental disaster was the 'Pearl Harbor' of the U.S. environmental movement."

—Russell V. Randle, "The Oil Pollution Act of 1990: Its Provisions, Intent, and Effects." *Environmental Law Reporter,* 21 (1991) : 10119.

The Exxon-Valdez

- The spill of 250,000 barrels of crude oil greatly exceeded government capacities
- Revealed inadequacy of existing regime
  - Total projected costs of cleanup: $1 billion
  - Four separate funds, three location specific
  - The § 311 fund was grossly underfunded ($4 million)
  - At $1 million per day (Exxon's cleanup costs) the fund would be depleted in days

Oil Pollution Act (1990)

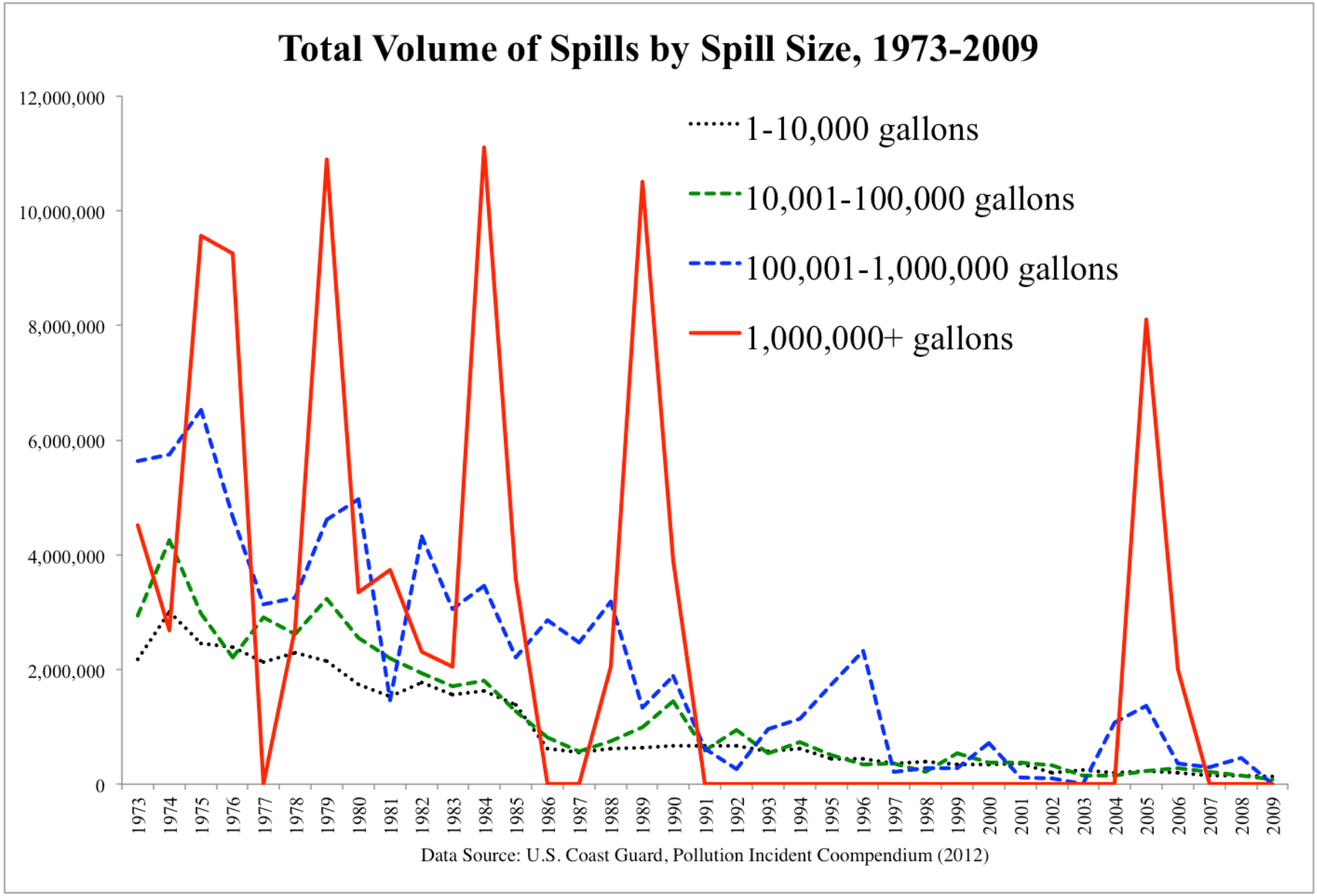
- Unified the liability provisions of existing laws
  - Strictly, jointly and severally liable
- Broadened scope of damages
  - Cleanup costs; natural resource damage, injury or economic loss from destruction of real or personal property; lost tax revenues, royalties, rents or profits suffered by government; net cost of providing public services during removal
- Damages caps
  - For tankers: $1,200/ton, $10 million/vessel
  - Unlimited if negligence, willful misconduct, or violation of OPA standards
- Oil Spill Liability Trust Fund (Superfund model)
  - Four funds consolidated + 5 cent/barrel tax→$1 billion

Oil Pollution Act (1990)

- New Focus on Prevention and Planning
  - Expanded National Contingency Plan required the President to establish procedures for worst-case scenario spills
  - Created national response unit and “strike teams”
  - Mandated worst case scenario contingency plans
  - Imposed new technical requirements (double hulls, monitoring and tracking)
- Industry response
  - Creation of Marine Spill Response Corporation
  - Five regional response centers, 23 staging area, to maintain and deploy equipment and personnel to mitigate catastrophic spills

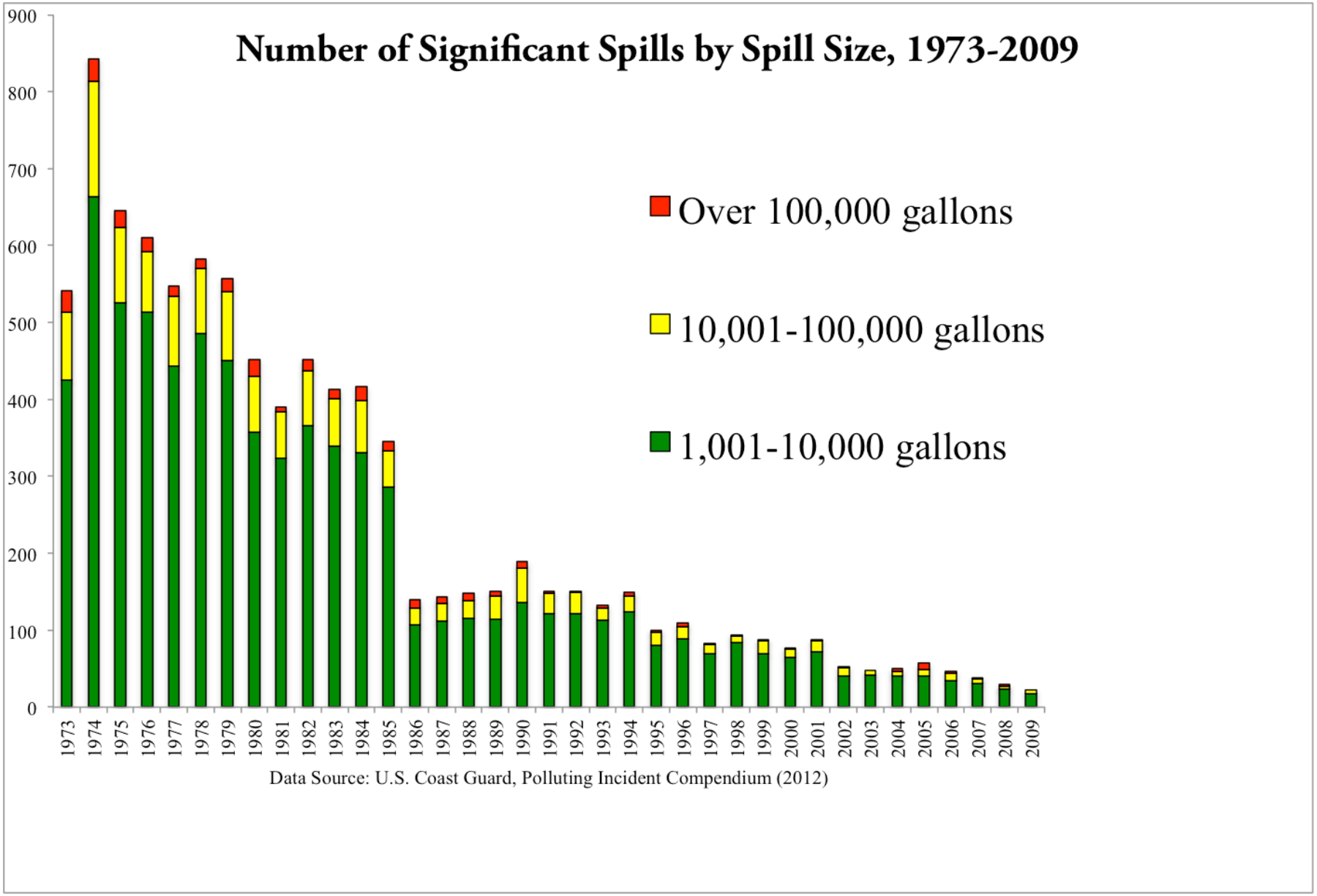
Performance: Total Volume of Spills

- US Coast Guard Polluting Incident Compendium reveals significant improvement
- 1973-1990, an annual average of 11.86 million gallons of oil were spilled
- 1991-2009, an annual average of 1.9 million gallons of oil were spilled
  - Includes 8 million gallons following Hurricane Katrina and 1.8 million gallons following Hurricane Rita (2005)


Total Volume of Spills by Spill Size, 1973-2009
12,000,000
10,000,000
8,000,000
6,000,000
4,000,000
2,000,000
0
1-10,000 gallons
10,001-100,000 gallons
100,001-1,000,000 gallons
1,000,000+ gallons
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
Data Source: U.S. Coast Guard, Pollution Incident Coompendium (2012)

Performance: Number of Significant Spills

- US Coast Guard Polluting Incident Compendium reveals significant improvement
- Reduction in the frequency of spills over 100,00 gallons, suggesting success of crisis response
  - 1973-1990, spills of over 1 million gallons occurred in every year except 1977
  - 1991-2009, spills of over 1 million gallons occurred twice (2004 and 2005)


Number of Significant Spills by Spill Size, 1973-2009
900
800
700
600
500
400
300
200
100
0
Over 100,000 gallons
10,001-100,000 gallons
1,001-10,000 gallons
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
Data Source: U.S. Coast Guard, Polluting Incident Compendium (2012)

Conclusions

Risk Management Regime

- First focused on risk shifting
  - Liability, damages, funds for cleanup and remediation
- Evolved to combine risk shifting and risk prevention
  - Expanded planning and preparation, technology-based standards
- Performance record supports positive evaluation, at least until 2010…

Deepwater Horizon (2010)