

# EPA Consent Decree Settlements with Petroleum Refineries in the Pacific Northwest



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# National Petroleum Refinery Enforcement Investigations



EPA campaign to cut air emissions from aging petroleum refineries began in 1996




Recognition of upwardly increasing crude throughputs



Petroleum Refining industry found to have the highest inspection-to-enforcement ratio

# National Petroleum Refinery Consent Decrees Settlements

 EPA and the Department of Justice paired up to offer oil companies court approved consent decree settlements

 Settlements provide look-back protection for noncompliant problems in exchange for penalties, SEP projects and emission reduction projects

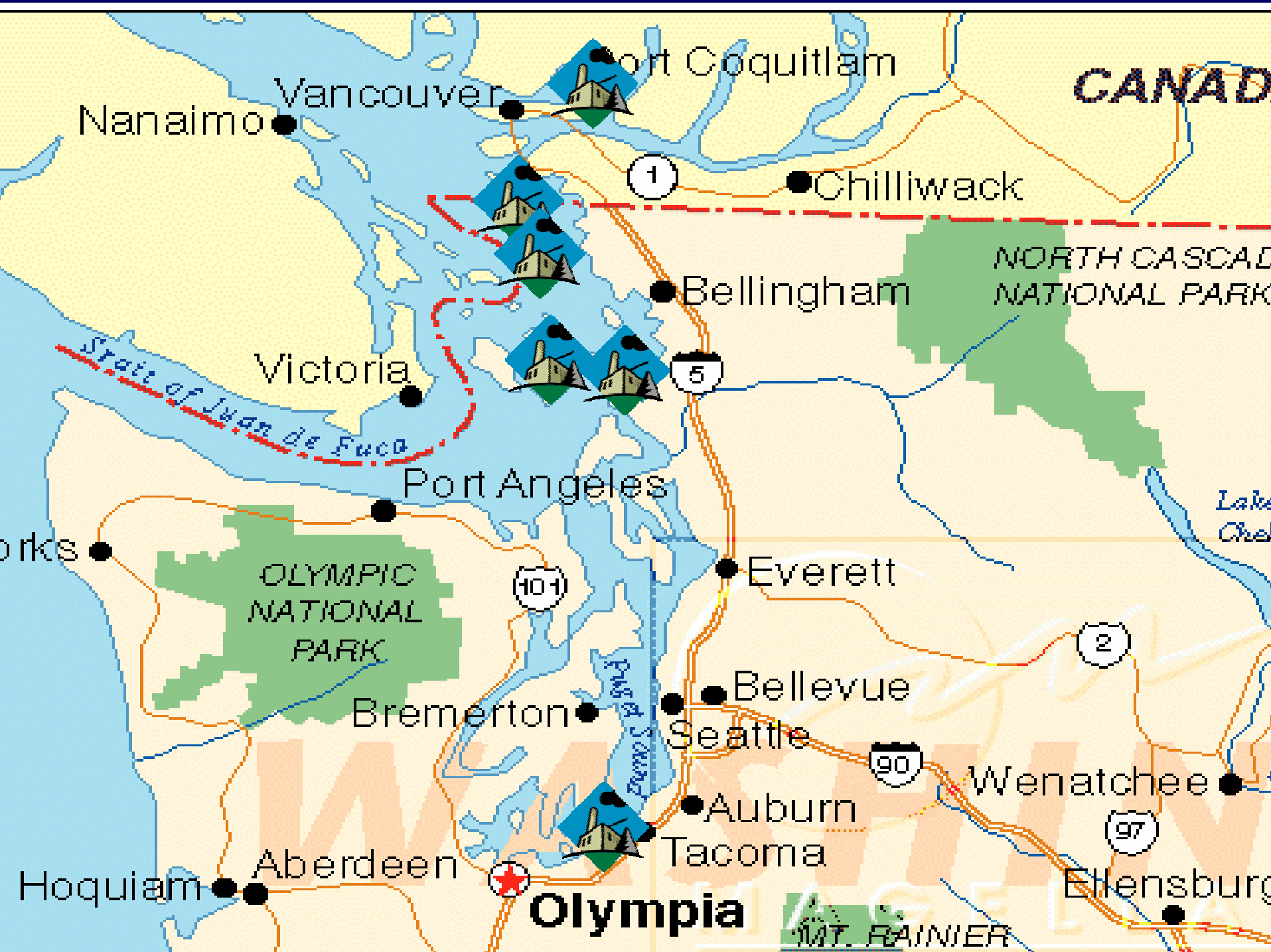
- Prevention of Significant Deterioration/New Source Review (NSR);
- New Source Performance Standards (NSPS);
- Leak Detection and Repair requirements (LDAR); and
- Benzene National Emissions Standards for Hazardous Air Pollutants (BWNON).

# National Petroleum Refinery Consent Decrees Settlements

- Since 2000, EPA has settled with nearly 41% of petroleum refining companies and has a goal of 60% by early 2005
- Current settlement penalties total \$40 million
- Refiners have agreed to spend \$2.2 billion on air pollution control upgrades

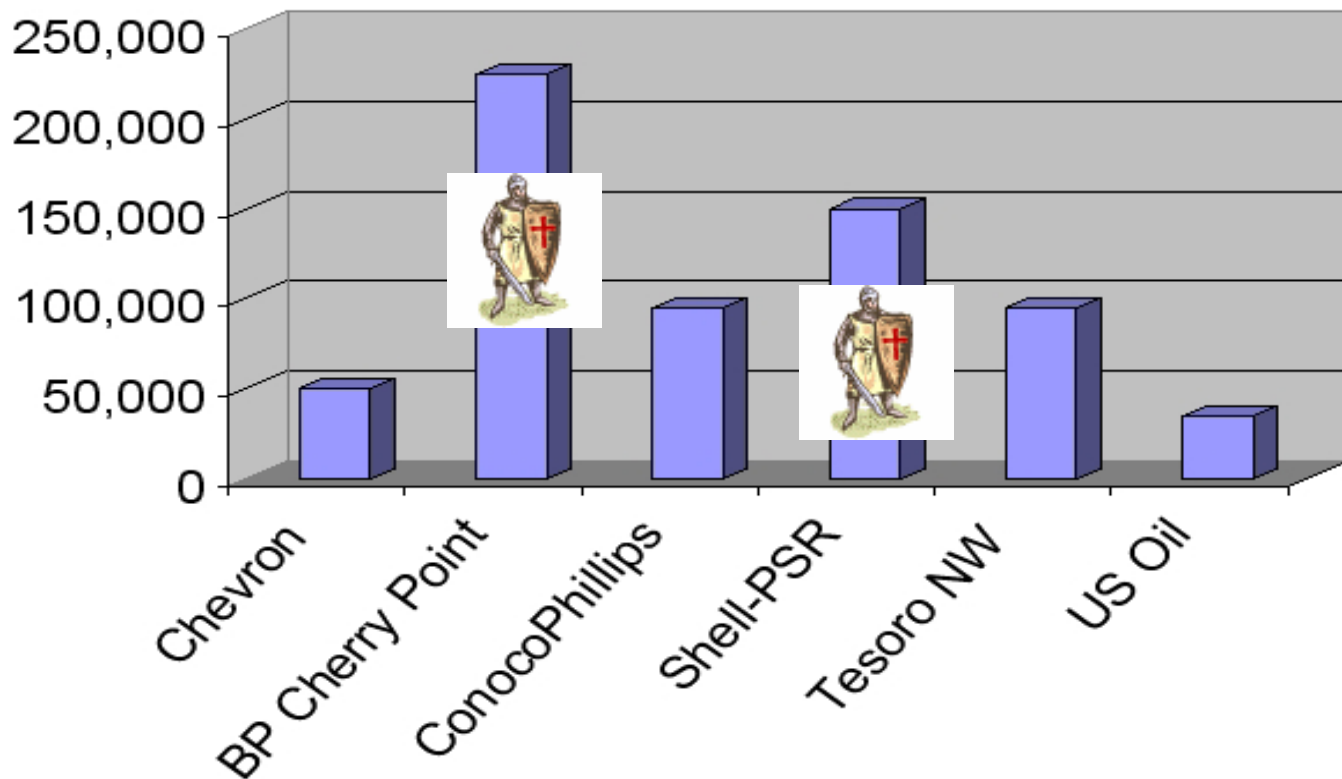


"No other industry sector has responded so well to the threat of litigation" - EPA Chief Enforcement Officer, Thomas Skinner

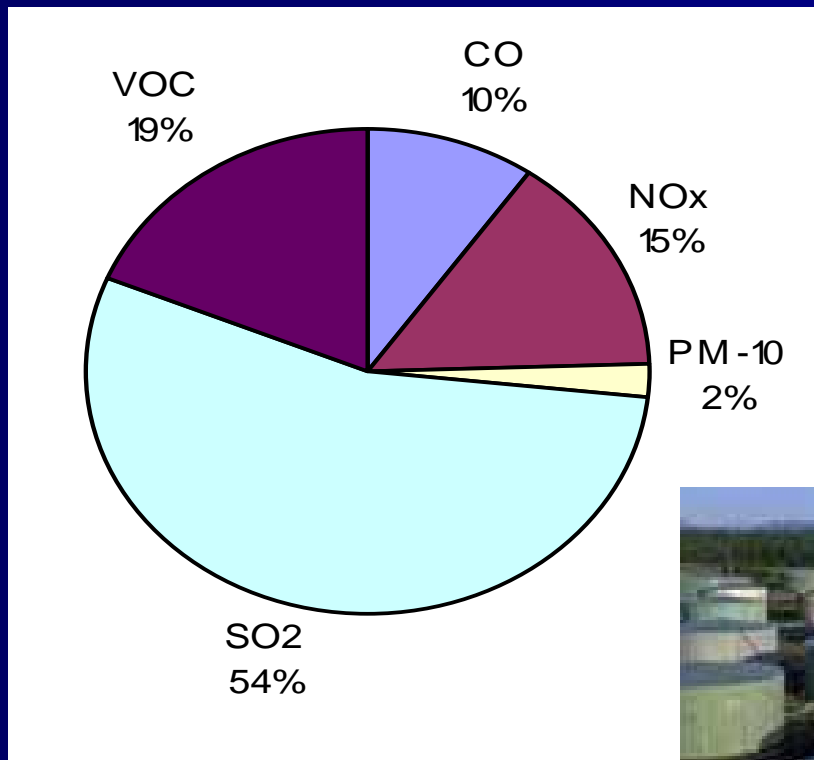


# EPA Consent Decrees with Pacific Northwest Refineries

**Refinery Throughput (barrels crude per day)**



# Criteria Air Pollutants emissions from Pacific NW Petroleum Refineries



**36,000 tons per year**

(based on 2000 calendar year inventory)



# Consent Decree - SO<sub>2</sub> Reductions



Sulfur Recovery Unit

- No Fuel Oil burning
- No Acid Gas Flaring
- Refinery Fuel Gas - 162 ppm H<sub>2</sub>S
- Sulfur Recovery stacks - 250 ppm SO<sub>2</sub>
- Wet Gas Scrubber on FCCU by 2008

# Consent Decree – VOC/HAP Reductions

- ✿ Enhanced LDAR - Leak definition for valves reduced from 10,000 ppm to 500 ppm
- ✿ Electronic data loggers
- ✿ LDAR Program Audits
- ✿ Two activated carbon canisters on sewer vents
- ✿ Benzene waste program audits (sampling) in oily sewer and treatment plant



# Consent Decree - NOx Reductions



- Calculate 1999 baseline NOx emissions corporate wide and reduce by 80% by installing Low NOx Heaters and Boilers.
- Low NOx applications based on best cost effectiveness
- More stack tests and continuous emission monitors

# Supplemental Environmental Projects (SEPs) resulting from Petroleum Refinery Consent Decrees in the Pacific NW



- \$50,000 to improve indoor air at schools
- Subsidy for Hybrid cars for Drivers Ed programs
- \$10,000 for Solar Rooftop Project
- Ultra low sulfur diesel retrofits for public busses
- Expansion of ambient air quality monitoring
- Purchase/Protection of 5 acres of forest in Anacortes

⚡ Monetary Penalties



# Title V - Air Operating Permit (AOP) Considerations

Delayed Coker Drums



- Legally not “requirements”
- Sunsets in 2008
- Resolve
  - Incorporate required NSPS into AOP
  - Incorporate NSR permit requirements for Consent Decree required projects into AOP
  - Add compliance schedule into AOP

# 2004 EPA's Inspector General Report



- EPA has not effectively measured performance, reported actual outcomes, or tracked progress toward achieving consent decree goals.
- EPA's delays in response may have delayed company implementation of projects designed to reduce emissions and "compromised compliance."



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Conclusions...

Questions?

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