

Port Advocacy: *Air Quality Efforts in Southern California*



*West Coast Region Conference on
Marine Port Air Quality Impacts
Seattle, WA
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**COALITION FOR
CLEAN AIR**

Outline

- **The Challenge Facing Our Ports**
- **Recent Advocacy Efforts in Southern California**
- **Overview of Recommendations and Next Steps**



The Challenge Facing our Ports

- **Port's historical role**
 - Major seaports and hubs of trade
 - Operations and volumes have changed



Photo courtesy of John Barbieri

- **Today, arguably most poorly regulated U.S. source of air pollution**
 - Complex layering of regional, state and federal regulations
- **Major growth expected within two decades**

Ports in Southern California

Grim Outlook

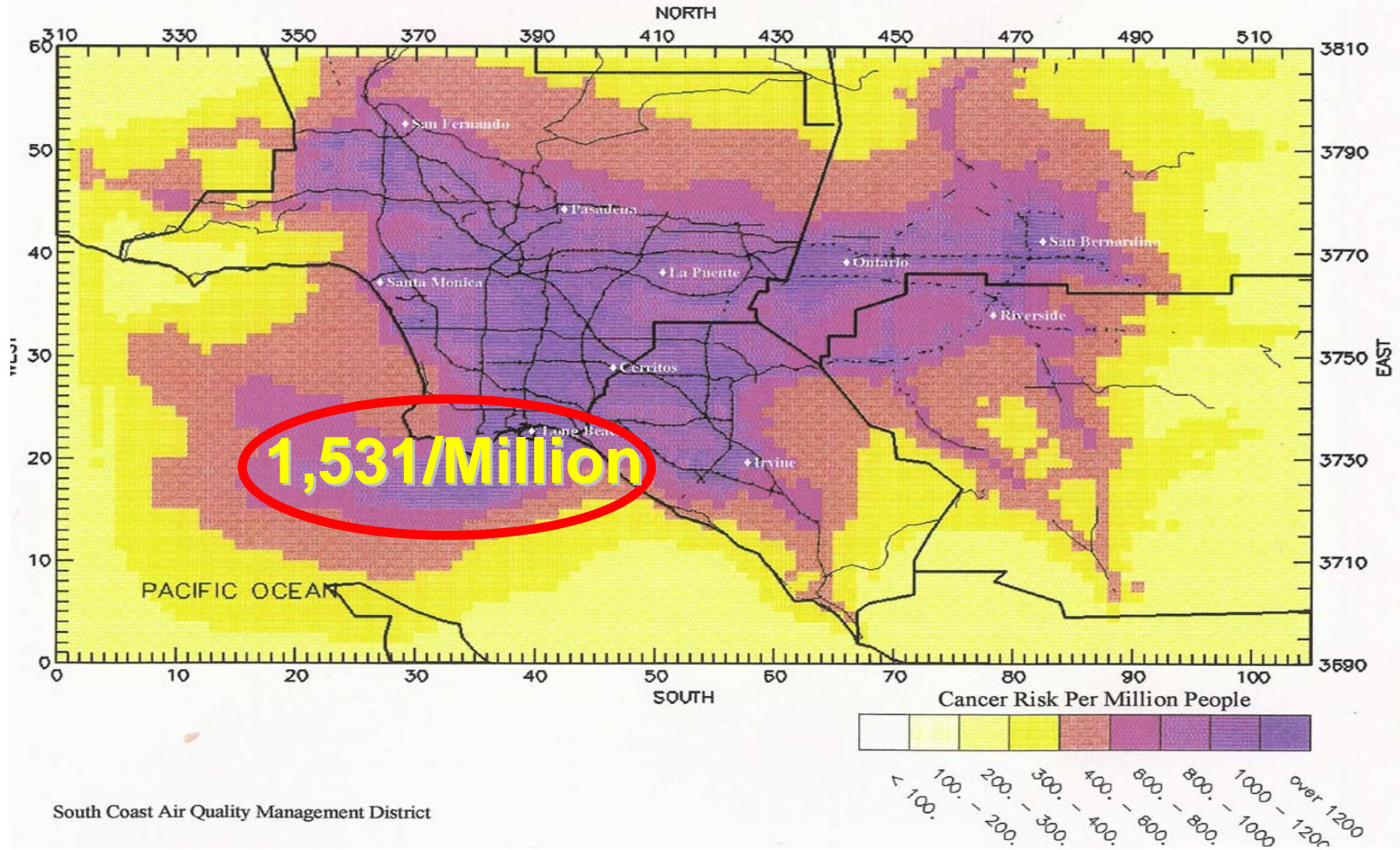
- #1 fixed source of air pollution
- > 40,000 trucks frequenting Ports of LA and LB daily
- Trucks trips to *triple*; container throughput to *quadruple* by 2025

Ports of
LA/LB
Daily
Equivalent:

- 3,000,000 cars
OR
- 80 refineries
OR
- 13 power plants
OR
- 16,000 trucks idling
24hrs/day

SCAQMD Cancer Risk Study

Model Estimated Risk From All Emission Sources

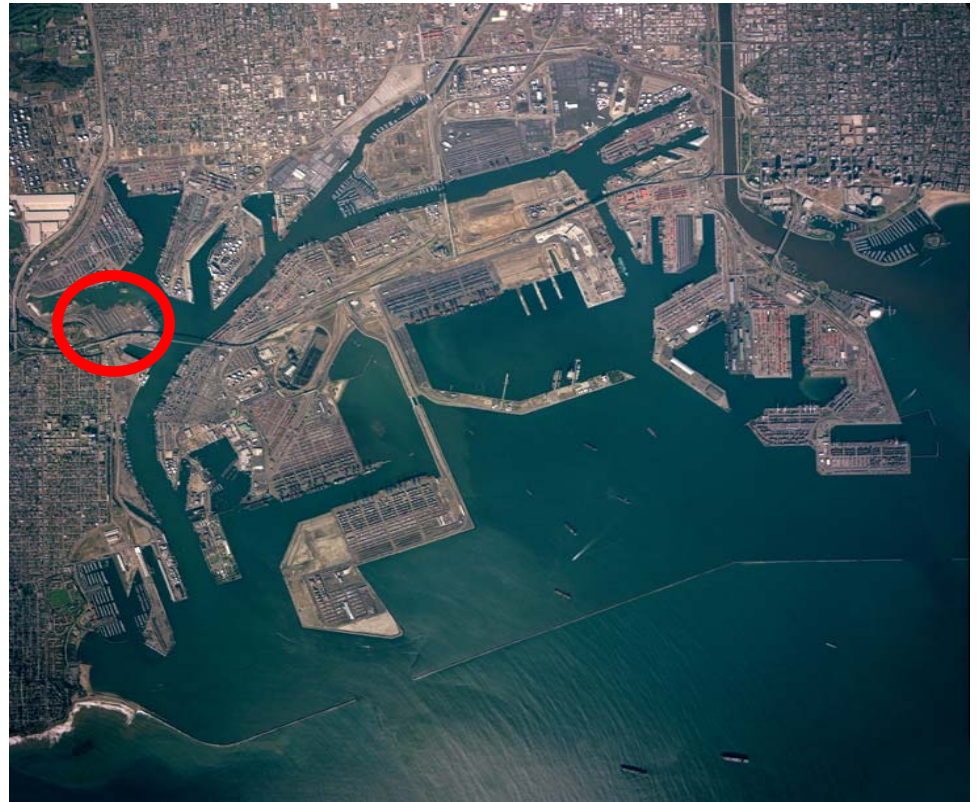


South Coast Air Quality Management District

Litigation at the Port of LA

China Shipping Settlement

- **Failure to comply with CEQA**
- **CCA, NRDC and community groups successfully file suit**
- **Settlement awarded in March 2003**



China Shipping Settlement

Air Quality Mitigation - \$20M

Aesthetic Mitigation - \$20M

**Truck Fleet Modernization* -
\$10M**

TOTAL: \$50M



Settlement will require:

- **Requires 70% of ships to run on dock-side power**
- **All yard tractors to run on cleaner alternative fuels**
- **Installation of lower profile cranes (Approx. 1/2 the height)**

* Gateway Cities Program

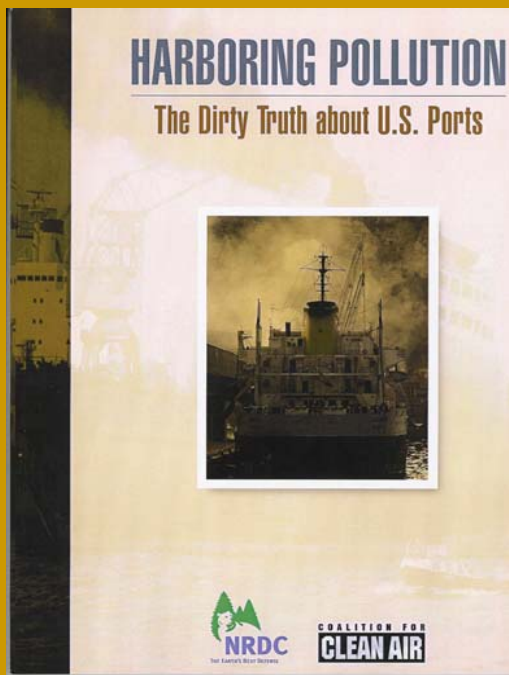
Port Study: 'Harboring Pollution'

- Evaluated 10 largest ports based on:

- Air Quality
- Water Quality
- Land Use
- Community Relations

- Provides policy and technical recommendations

- Sets stage for detailed report **early Summer 2004**



'Harboring Pollution' Report Card

	Air Quality	Water Quality	Land Use	Community Relations	TOTAL
Oakland	B-	B	C	C+	B-
Seattle	C-	B-	A-	D	C+
Long Beach	C+	C+	C-	D	C
Los Angeles	C+	C-	D+	D	C-
Houston	D	C+	F	F	F

Primary Community Concerns

- Major public health impact
- Poor relationship with Port officials
- Minimal buffer between residents and port
- Lack of adequate mitigation for all projects



Where to?



- Goal **“NOT”** to stop global trade or shut down ports
- Must encourage meaningful mitigation
 - *i.e., China Shipping Terminal*
- Technological advancement and efficiencies throughout the world



Pick-up ‘low-hanging’ fruit

Technological Recommendations

Short Term  *Longer Term*



Idling Tech.

Cleaner Fuels

LNG/Hybrids



Speed Reduction

Dockside Power

Cleaner Fuels

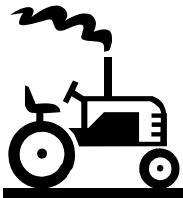
New Green Ships



Idling Limits

Retrofits

Fleet Turnover



Control Techs.

Cleaner New Purchases

Cleaner Fuels

Electrified Terminals

Marine Dockside Power

Comparison of Auxiliary Diesel Engine, Average US Power Plant, and Fuel Cell Emission Rates (lb/MW-hr)

Pollutant	Diesel Fuel¹	Average U.S. Power Plant²	Fuel Cell³
NO_x	18.3	3.52	0.002 -0.03
CO	25.4	0.33	0.002 – 0.142
THC	7.6	N/A	N/A
NMHC	N/A	0.04	0.001 – 0.081

Various Sulfur Content Fuels

SULFUR CONTENT		EXAMPLE OF CURRENT USAGE OR STATUS
%	ppm	
4.5	45,000	Supported by the International Convention for the Prevention of Pollution from Ships (MARPOL) as a global cap on sulfur content
2.7	27,000	Average for marine fuels (widely accepted global average for marine fuels)
1.5	15,000	Recently proposed by EU as their cap for marine vessels
0.3	3,000	Current US EPA non-road diesel fuel standard which does not include marine vessels
0.2	2,000	Recently proposed by EU for marine vessels while berthed in their ports
0.05	500	Current US EPA on-road diesel fuel standard
0.015	150	Current California on-road diesel fuel standard
0.0015	15	US EPA on-road and California on-road and off-road diesel planned for mid-2006

Maritime Low Sulfur Diesel

Type of Fuel	NO _x	PM	SO _x
Cleaner Fuel – 1.5% sulfur (HFO)	0%	18%	44%
Cleaner Fuel – IFO 180	0%	UNK	-
Cleaner Fuel – MGO	10%	63%	89%
Cleaner Fuel – CARB On-Road Diesel	16%	72%	99%

Source: Draft Table created by ARB outlining the approximate emission reductions that result from the use of various grades of low sulfur marine fuels

Policy Recommendations

- Expedite efforts for SECA equivalent
 - West Coast Governor’s Initiative as bridge
- Container Fees
 - Funds for air quality mitigation fees
- Graduated Harbor Fees
- Stabilize total emissions and then begin decrease



Switch perceived competitive “disadvantages” to
ADVANTAGES!

Conclusion

- **Reducing pollution must be part of paradigm**
- **All affected by international trade**
- **All affected by environmental impacts**
- **Time is critical for policy change**

