

## Success Accelerated

Virginia Terminal Creates A Roadmap To The Future



 APM TERMINALS

## APM Terminals Virginia



- Largest privately owned marine terminal in North America
- A marriage of technological innovation and environmental stewardship
- A partnership with local, state and federal agencies along with surrounding communities
- Will bring an estimated \$6.4 billion dollars into Portsmouth and surrounding communities over next 15 years

 APM TERMINALS

## Engineering Highlights



- 291-acre facility sits along Virginia's historic Elizabeth River
- 1 million TEUs per year, expandable to 2 million
- Crane fleet features 6 post-panamax, can support up to 12
- 30 rail-mounted, remote-controlled gantries
- On-site rail yard has six tracks, also expandable to 12
- Direct access from main highway (no impact to neighborhoods)

## Technological Achievements



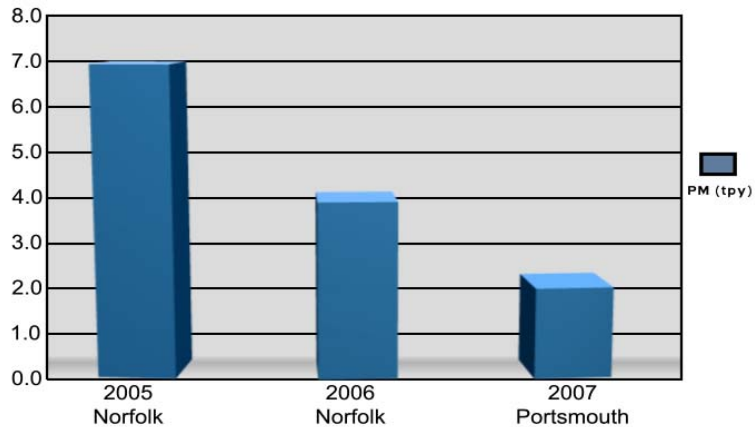
## How We Reduced Emissions



- Electrification of ship-to-shore cranes
- Automation and electrification of RMGs
- Improved container management and logistics
- Use of yard trucks that meet 2010 emission standards
- Use of low sulfur diesel fuel for container handling equipment
- 40-acre, on-dock rail yard

## Reduced PM Emissions

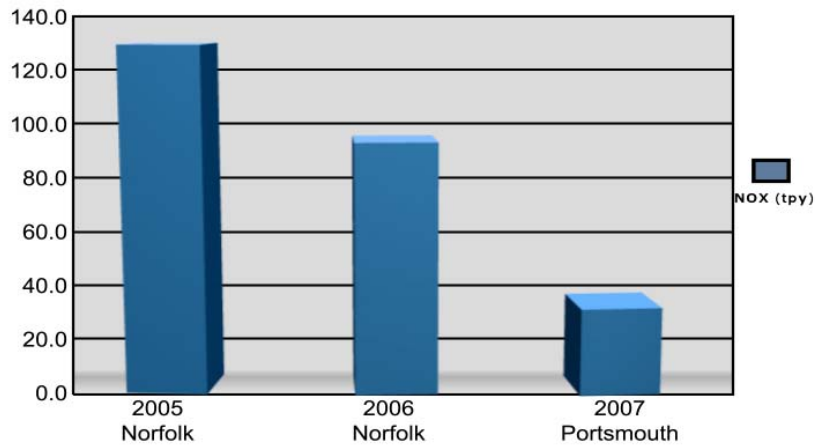
Norfolk and Portsmouth Terminals - Particulate Matter Emissions



## Reduced NOx Emissions



Norfolk and Portsmouth Terminals - NOx Emissions

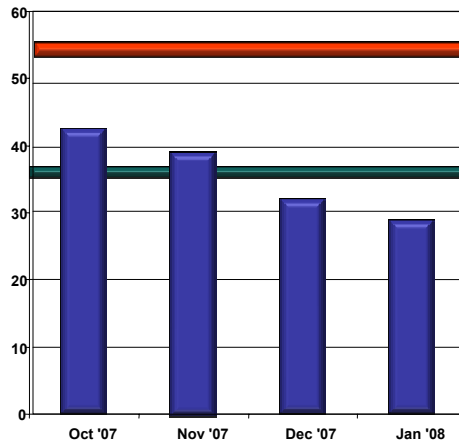


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- Use of RFID technology to reduce queue and idle times for OTR

## Reduction in Truck Turn Times



■ Los Angeles Turn Time  
■ Old Norfolk Turn Time  
■ New Portsmouth Turn Time\*

\*Truck Turn Times reduced by approximately 50% from Norfolk

## Partnerships—The Real Way To Success

Key collaborations with local, state and federal agencies helped to “fast track” our environmental protection plan

- Army Corps of Engineers
- Virginia’s Department of Game and Inland Fisheries
- U.S. Coast Guard
- Virginia’s Department of Environmental Quality
- Governor of Virginia
- Mayor of Portsmouth
- Local Communities
- Elizabeth River Project
- Regional Native American Leaders

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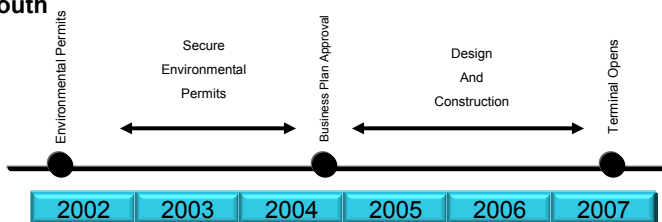
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- Permanently conserving 110-acre green belt around the facility



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### Portsmouth

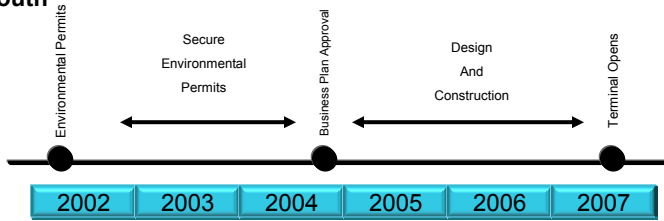




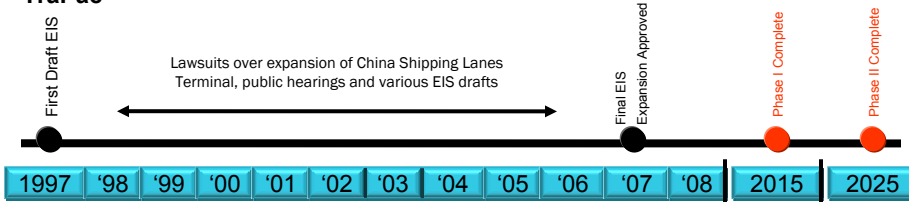
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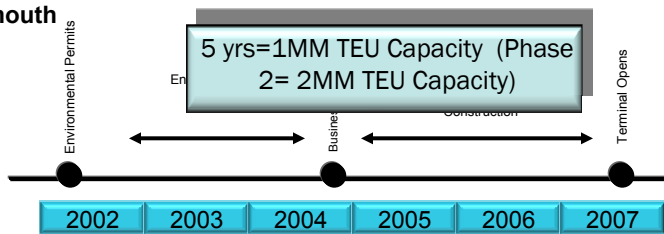
### TraPac



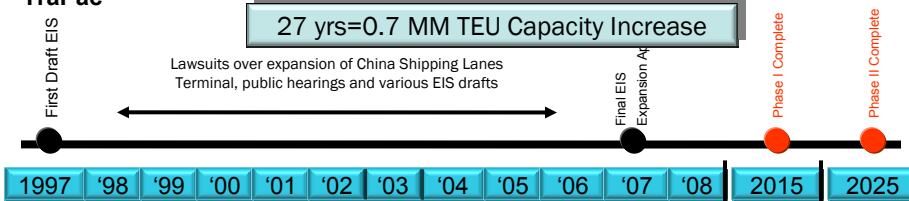
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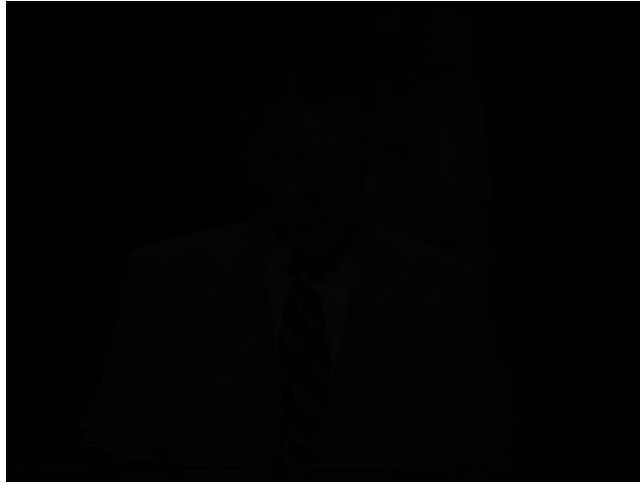
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“It’s not the big that eat the small...

...it’s the fast that eat the slow.”