

*A Leader in Global Container
Transportation Services.*

Efficient Green Terminal Infrastructure & Cleaner Marine Initiatives

**Virginia Hessenauer
APL Environmental Affairs – Americas**

Faster Freight – Cleaner Air Pacific Northwest

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Company Profile

APL is the liner company of Singapore-based Neptune Orient Lines, a global logistics and transportation company, featuring a worldwide employee base of 4,200, a fleet of over 100 cargo vessels, and 4 marine terminals on the U.S. West Coast.

As a global container transportation company offering more than 60 weekly services and nearly 300 calls at more than 90 ports in Asia, Europe, the Middle East and the Americas, APL combines world-class multi-modal operations with leading edge information technology and e-commerce.

APL employs over 1100 people in the Americas, with 300 in our West Coast facilities, including 70 employees at Global Gateway North – GGN – our facility at the Port of Seattle.





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Eagle Marine Services – Seattle Terminal Initiatives

Bio-diesel blend of 80/20 in our yard tractors. Each percentage point of bio-diesel in the mix reduces particulate-matter emissions by the same percentage, 20% results in 20% fewer emissions.

Diesel Oxidation Catalysts, DOCs, on yard tractors.

Plans to outfit our Seattle container-handling fleet of 80 units with **diesel emission control equipment.**

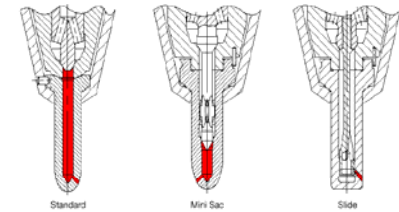
Electrical plugs on dock for refrigerated containers. 2,600 plugs in West Coast terminals, with 600 in Seattle. Each plug replaces a diesel generator set for a refrigerated container.

Ongoing discussion with the Port of Seattle on innovative partnership opportunities.



APL – Maritime Initiatives

Slide valves and cylinder oil lubrication: Slide valves reduce fuel leakage when fuel is injected into the engine. As a result, the fuel burns more completely, with lower emissions.



Fuel Emulsification (Water in Fuel): This project is based on the industry-accepted standard that the addition of 1% water in fuel would result in a 1% reduction in NOX. Recent testing aboard at up to 22% water have been performed. Second round of “in situ” testing in progress on MV APL Singapore.

Low Sulfur Fuel in Auxiliary Engines while at Berth in Seattle: Reduction of 75% PM and 80% SOX are baseline objectives.

Silicon paint: Hull drag reduction. 6% to 7% less fuel consumed, thereby reducing main engine emissions.

Propeller boss cap fin: The fins turn together with the main propeller, increasing efficiency. The result is 2% to 4% less fuel burn, with a corresponding reduction in emissions.



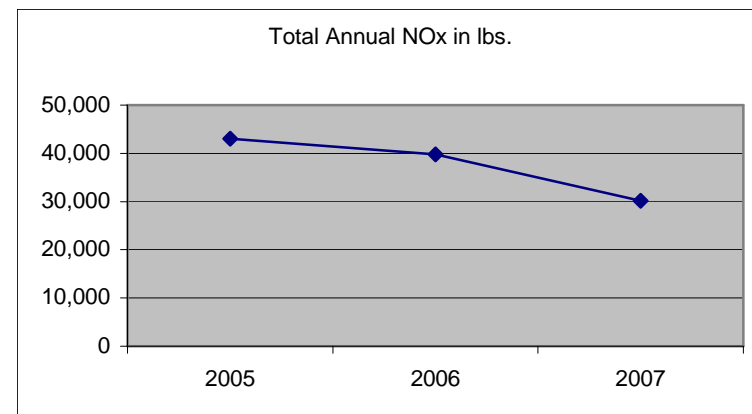
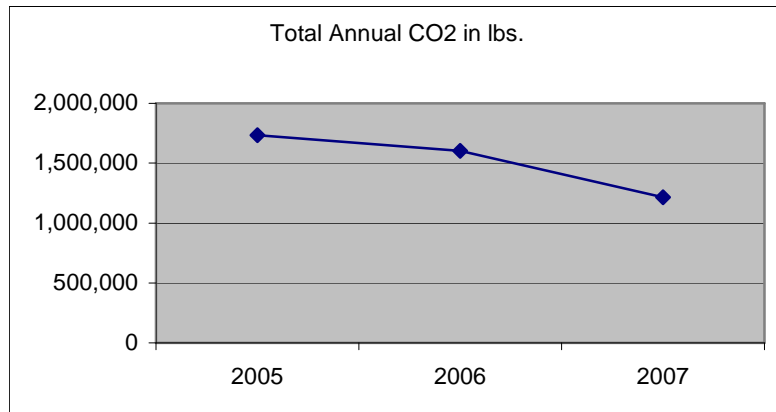
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APL Terminal – GGN Existing Infrastructure Initiatives

Engine Idling Controls: Activated in Seattle on yard tractors equipped with engine model year 1996 and later. All newer model units purchased in 2008 and beyond have EIC as standard equipment.



	2005	2006	2007
Total Annual NOx in lbs.	43,053	39,766	30,141
Total Annual CO in lbs	3,212	2,966	2,249
Total Annual PM10 in lbs	610	563	427
Total Annual SOx in lbs	2,927	2,704	2,049
Total Annual CO2 in lbs.	1,733,933	1,601,572	1,213,942





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Ongoing Evaluations

Electronic “Smart System” Yard Lighting Control.

Dock Electrification - “Cold Ironing”.

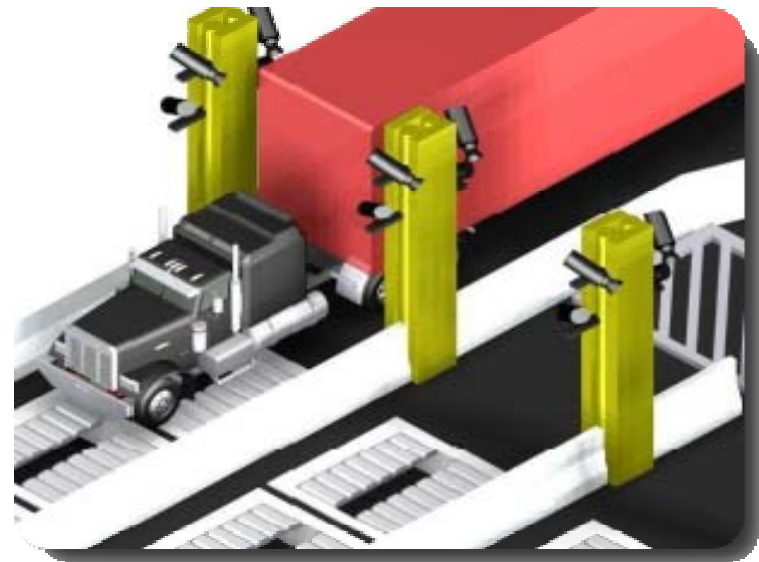
The “Virtual Container Yard”.


Trucker Appointment Systems.

Terminal Automation Schemes.

Solar/Wind Power Installations.

Distributed Power Generation.





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Our Commitment

- Identify, assess and manage environmental risks.
- Evaluate operations to mitigate adverse impacts on the environment.
- Implement pollution prevention measures and processes.
- Promote activities to conserve resources and energy and to minimize and recycle waste.
- Strive for environmental excellence through continual improvement.



*Moving Business
Forward*



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Thank you.