Challenges and Opportunities for the Cruise Market....

....an Environmental Perspective

Presentation to
Annual Meeting of the American Association of Port Authorities
September 25, 2008
Captain William J. Morani, Jr.
HOLLAND-AMERIKA LIJN

ROTTERDAM - NEW YORK
An elite fleet......

Signature-Class

ms Eurodam

Vista-Class

ms Zuiderdam

Rotterdam-Class

ms Rotterdam

Statendam-Class

ms Statendam

ms Oosterdam

ms Volendam

ms Maasdam

ms Prinsendam

ms Westerdam

ms Amsterdam

ms Ryndam

ms Noordam

ms Zaandam

ms Veendam
…..travels the world and through excellence we create once in a lifetime experiences every time…..
Integrated Safety and Environmental Protection Policy...

... Our program’s touchstone

This policy drives:

- **Pollution prevention through...**
- **Continuous improvement......**
- **By setting environmental objectives and targets**

and provides quantifiable competitive business advantages.
Minimizing our Environmental Footprint..

..By setting real, measurable environmental objectives and targets

The BIG FOUR....

1. Conserve fuel to 2% below budget.
2. Reduce solid waste offloads by 15%.
3. Increase recycling by 10%.
4. Reduce engine emissions.
Reduce Fuel Consumption....

.... To 98% of budgeted amount
Reduce Solid *Waste Offloads...*

...By 15% less than 2007 volumes
Increase Recycling......
...By 10% over 2007 quantities

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42.7% increase over 2007 Figures

Holland America Line
A Signature of Excellence
Reduce Seattle Dockside Emissions by 75%...
...By plugging into shore power

Holland America Line ships
ms Amsterdam, ms Oosterdam, ms Westerdam
Evaluate Sea Water Scrubbing...

How does sea water scrubbing stack-up to cleaner fuel?

• **It works.** It provides a net environmental benefit taking 75% of SO2 and 57% of PM out of the environment.

• **Can be use anywhere a ship sails.**

• **Is cost effective** - Allows the continued use of heavy fuel oil (HFO) at $750 per tonne as opposed to using distillate fuel (MDO) at $1,275 per tonne (July 2008).

• **Contributes to energy global security** as it allows the continued use of residual petroleum hydrocarbon fuel.

**HOWEVER**

The quality of wash water discharge still needs improvement.

An engineering evaluation is underway.
Challenges in Environmental Management…

.....Our global industry faces many challenges

» Getting out our environmental message....

» Managing the patchwork of environmental regulations in a global marketplace....

» Persuading others to work towards solutions which provide a net environmental benefit....
Opportunities for Success.....

....Abound

- Using *conservation* principles as a means to drive efficiency.....

- Using science and technology-based approaches to solve problems......

- Collaborating with many stakeholders.....
Thank you!