AAPA Energy & Environment Seminar
Implementing Clean Vessel Incentive Programs at Ports

September 2018
Cruise Lines International Association (CLIA)

• Global organization
• 15 offices worldwide

CLIA is the global organization that fosters our members’ success by advocating, educating and promoting the common interests of the cruise community.
Cruise Lines International Association

- 37 cruise Lines
- @ 250 Ships (over 80% of total)(95% of total passenger capacity)
- Global operations
- 26M passengers annually (12M from US & Canada)
CLIA

Legal
- Legislative
- Technical

Regulators
- Policymakers
- Industry partners

International
- National
- Regional

Protection of the marine environment

Safety of passengers and crew

Shipping policies
- Regulations

Safety of passengers and crew

Protection of the marine environment
Environmental Protection - Air

Concerns include:

**Air Quality:**
- SOx – (Fuel related)
- PM – (Fuel related)
- NOx – (Engine related)

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**Climate Change:**
- CO2 – (Fuel related)

Laws / Regs:
- **Clean Air Act (US)**
  - Emissions Control Area 200 Miles
- **MARPOL (International)**
  - Prevention of Pollution from Ships
Reducing Sulfur Oxides

**US Standards**
- Emission Control Area (200 Miles)
- 0.1% sulfur content

**Can Comply with:**
- Low Sulfur Fuel/LNG
- Exhaust Gas Cleaning Systems
- Shore Power in Port

**International Standards**
- 3.5% sulfur content
- 0.5% in Jan 2020

**Can Comply with:**
- Low Sulfur Fuel/LNG
- Exhaust Gas Cleaning Systems
- Shore Power in Port
Reducing Carbon

Driven by Global Climate Change Concerns

IMO agreed upon goals:

• 40% fuel efficiency improvement by 2030
• 50% reduction in overall Carbon Emissions by 2050
• Phase out CO2 emissions this century

Cruise Industry committed to doing its part to help meet global goals

ONE INDUSTRY. ONE VOICE.
Industry Investment in Controlling Emissions

• Over $1B in technology
  • Exhaust Gas Cleaning Systems (“Scrubbers”)
  • Reducing fuel demand (efficiency):
    • Hull design / coatings
    • Solar panels
    • Window tints (Air Conditioner use)
    • Shore side electricity systems

• Over $8B in alternate fuels
  • LNG (17 ships on order)
2018 ENVIRONMENTAL TECHNOLOGIES AND PRACTICES

- **62%** of global capacity is served by advanced wastewater treatment systems; 100% of all new builds will have advanced wastewater treatment systems installed.

- **83%** of new build capacity will benefit from advanced wastewater treatment systems capable of meeting the more stringent discharge standards of the IMO MARPOL Annex IV Baltic Sea Special Area.

- **60%** of global capacity utilizes Exhaust Gas Cleaning Systems (EGCS) to meet or exceed air emissions requirements; more than 48% of new build capacity will have EGCS installed.

- **MORE THAN 34%** of new build capacity will rely on LNG for primary propulsion.

www.cruising.org

Cruise Lines International Association (CLIA) is the world’s largest cruise industry trade association. CLIA represents the interests of cruise lines, travel agents, port authorities and destinations, and various industry business partners before regulatory and legislative policy makers.
Shore Side Electricity Systems

• CLIA supports continued port infrastructure development where cruise ships call for the availability of a clean supply of power close to the port that will achieve an overall emission reduction.

• CLIA supports IMO invitation for proposals from Member States for onshore power supply equipment that is made available for shipboard installation to meet an international standard.

• 28% of cruise capacity fitted with shore side electricity systems; More than 55% of ships configured to add shore side electricity systems.

• 30% of new builds planned to be fitted with shore side electricity systems.

• Only 13 ports/specific berths have shore side electricity capacity to support CLIA oceangoing cruise ships (10MW).

<table>
<thead>
<tr>
<th>SHORE SIDE ELECTRICITY / COLD IRONING</th>
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<td>Ships fitted with SSE systems</td>
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<td>Ships planned to be retrofitted with SSE systems</td>
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<td>New build ships committed to fit SSE systems</td>
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<tr>
<td>Ships configured to add SSE in the future</td>
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<tr>
<td>New build ships which will be configured to add SSE in the future</td>
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The following 13 ports specific berths visited by CLIA oceangoing ships are fitted with shore side electricity / cold ironing capacity:


7-9 MW: Juneau
Incentive and Recognition Programs

• Classification Society Programs

• Shipowner voluntary certification of Environmental Management System against ISO 14001:2015

• E-ZERO and QUALSHIP 21
Industry Environmental Policies

- Implementation verified annually by Member cruise line CEO’s;
- Condition of membership;
- Incorporated into each ship’s Safety Management System (SMS);
- Subject to third party and internal auditing.
Respecting the Destination

• Safety and Environmental Compliance: Required!

• Committed to responsible use of the port:
  • Work with local officials / pilots
  • Safe navigation
  • Respect other waterway users
  • Infrastructure and facilities