Cruise Ship Onboard Incineration Public Workshop Sacramento May 17, 2005

Background

- Concern that cruise ships and other marine vessels are a significant source of air pollutants, including toxic and criteria air pollutants
- Increase in number of cruise ships that will operate in California
Background (cont’d)

- Cruise ships visit the following locations:
  - About 98 percent of all 2004 port visits to: Long Beach, San Diego, San Francisco, Avalon/Catalina
  - About two percent of all 2004 port visits to: Hueneme, Humboldt, Monterey, Oakland, Santa Barbara

- Cruise ships accounted for approximately 650 port calls (2004)
- California Legislature concerned over the increasing cruise ship engine emissions

AB 471

- Effective January 1, 2005, cruise ships prohibited from conducting onboard incineration within three miles of the California coast
- Reduces exposure to toxic air contaminants, such as dioxins and toxic metals, for residents living near ports and the California coastline
- Airborne Toxic Control Measure (ATCM) currently under development – focus on enforcement
AB 471 - Applicability

- Applies to cruise ships that carry 250 or more passengers
- Does not apply to:
  - Vessels without berths or overnight accommodations for passengers
  - Noncommercial vessels, warships, vessels operated by non-profit groups, California or federal government operated ships

Toxic Air Contaminants from Incinerators

- Dioxin/furans, dioxin-like PCBs
  - Highly toxic, persistent and bioaccumulative
- PAHs
- Heavy metals
  - Cadmium, lead, mercury, arsenic, nickel, manganese, etc.
- HCl (hydrochloric acid)
- Other pollutants
  - Particulate matter, hydrocarbons
Existing Requirements for Incineration

• Annex V of MARPOL 73/78
  - Entries in garbage record book
    - Date and time of start and stop of incineration
    - Position of ship (latitude and longitude)
    - Estimated amount of incinerated garbage
    - Signature of officer in charge of operation

• Annex VI of MARPOL 73/78
  - IMO certificate, operating limits for incinerators, prohibition of incineration of certain wastes
  - Entered into force May 19, 2005

Enforcement of ATCM

• ARB enforcement and local air district staff
• Submittal of garbage record logs to ARB and districts
• Boarding of vessels
• Review of garbage record logs
• Automated Monitoring Systems
• Collaboration with U.S. Coast Guard and port inspectors
Onboard Incinerator Survey

• Onboard incinerator survey sent out
  April 2005
  – Determine current incineration practices
  – Amount of garbage
  – Days and hours of operation
  – Air pollution control
  – Other types of waste treatment
  – Over 50 percent response rate

Health Risk Assessment

• Health and Safety code section 39665 requirements us to evaluate:
  – The potential health risks associated with the toxic air contaminants
  – Reduction in potential risk from the ATCM
  – Emissions (present and future)
    ➢ Data from survey and available source tests will be used to determine emissions
Three Mile Determination

• Goal – A “bright line” that will easily allow incinerator operators to understand the three mile boundary as specified in AB 471
• State Lands Commission (SLC) has worked with federal government and has developed a line that is generally accepted and used in SLC programs

Three Mile Determination

• Working with SLC to develop a set of latitude and longitude coordinates that can be adapted to the “bright line” approach
• Consistent with garbage record log
• Minimal interpretation for enforcement
• Interested in comments once available
Workgroup

- Convening a workgroup to discuss issues related to development of ATCM.
  - Regulation language
  - Enforcement
  - Health risk assessment
  - Three mile off California coast determination
  - Other issues
- Meetings – teleconference available
- First meeting in June 2005

Schedule and Contact

- Workgroup meetings
- Continue public workshops
- Proposal to Board – November 2005

Further information or to sign up for workgroup
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