



Cruise Ship Onboard Incineration
Public Workshop
Sacramento
May 17, 2005

Air Resources Board
California Environmental Protection Agency



Background

- Cruise Ship Environmental Task Force Report to the Legislature (August 2003)
- 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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www.arb.ca.gov/toxics/crushp/crushp.htm

Sign up for the list serve to get updated information.