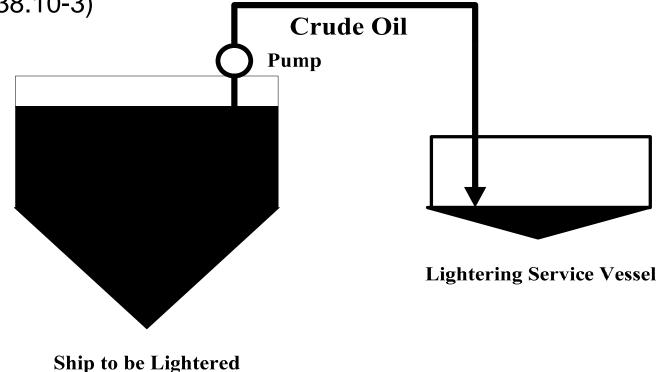
Ozone Transport Commission Mobile Source Committee Update

OTC Fall Meeting 2009 November 5th Baltimore, MD

- Measures Under Evaluation (NESCAUM)
 - Lightering
 - Non-road idling
 - Sea ports
- Other Initiatives
 - Identify Other Options
 - Catalyst Replacement Program Design Recommendation to the USEPA

- Lightering—
 - "Lightering or lightering operation means the transfer of a bulk liquid cargo from a tank vessel to a service vessel." (46 CFR 38.10-3)



• Lightering (Courtesy of DNREC)



Lightering—

- Locations
 - Delaware Bay ~ 100 million Barrels/year
 - NY (NY Harbor + LI Sound) ~ 37 million Barrels/year
 - Baltimore ~ Expecting data
 - Off-Shore ~ 16 million Barrels/year
 - Based on 1998 National Resource Council Report and Coast Guard Data
- Emission Reduction Benefit Estimates (Upper Bound)
 - Based on Delaware Rule and AP 42 EFs
 - Delaware Bay ~ 1,858 tons/year VOC (regulation in place)
 - New York ~ 2,261 tons/year VOC
 - Baltimore ~ Expecting data
 - Off-shore ~ 292 tons/year VOC

- Lightering (cont.)-
 - Considerations
 - A variety of petroleum products are transferred (crude, gasoline, jet fuel, etc.)
 - A 95% reduction is technically feasible using vapor balance control technology
 - DE regulations phase in the requirements

- Non Road Idling
 - Focus on Construction Equipment
 - Developing emission inventory information
 - Portion of the Emission Factor
 - Activity Information (Sensitivity Analysis)
 - Stakeholder Comments, Engine Manufacturers association (EMA)
 - Prefer education programs for owners and operators over regulation
 - Request regional consistency, and
 - Provides recommendations on Scope, Applicability, Definitions, Time limits and Exemptions for a rule

- Sea Ports
 - Developing Emission inventory information
 - Emission Factors
 - Activity Uncertainties
 - Developing Strategy Recommendation

Screening Analysis Strategies

- Benefits from the IMO Emission Control Area Definition
- Lightering
- Idling Programs
- Sea Ports

- Other initiatives
 - Developing an outline for a National Catalyst Replacement Program Recommendation for the USEPA

- Next steps
 - Complete the White Papers
 - Define measures for inclusion in the Screening Modeling
 - Identify Other Options
 - Stakeholder Meeting in Spring 2010