



# U.S. Approach to ECA Compliance Assurance

*Meetu Kaul, Esq.*

*National Marine Enforcement Coordinator*

*Air Enforcement Division*

*U.S. Environmental Protection Agency*

# U.S. Approach to ECA Compliance Assurance

## Agenda:

- **Why is Enforcement Important?**
- **Who has Enforcement Responsibility in U.S.?**
- **Key Elements of Enforcement Program**



# Why is Enforcement Important?

- *Cost of compliance is significant*
  - *Price of ECA compliant fuel can be almost double world-wide fuel*
  - *Large vessel can use 30-40 MT of fuel during ECA entry*
- *Those who comply would be at competitive disadvantage compared to those who cheat*
- *Failure to enforce leads to low compliance rate*
- *Low compliance rate leads to failure to achieve public health benefit and market distortion*



# U.S. Enforcement Responsibility

- *Shared between US EPA and US Coast Guard - builds on strengths of each agency*
- *US EPA*
  - *Fuels and Air Pollution Emissions Controls*
- *US Coast Guard*
  - *Issues and Laws related to Ships*
  - *Presence at ports*
  - *Routine contact via Port State Exams*

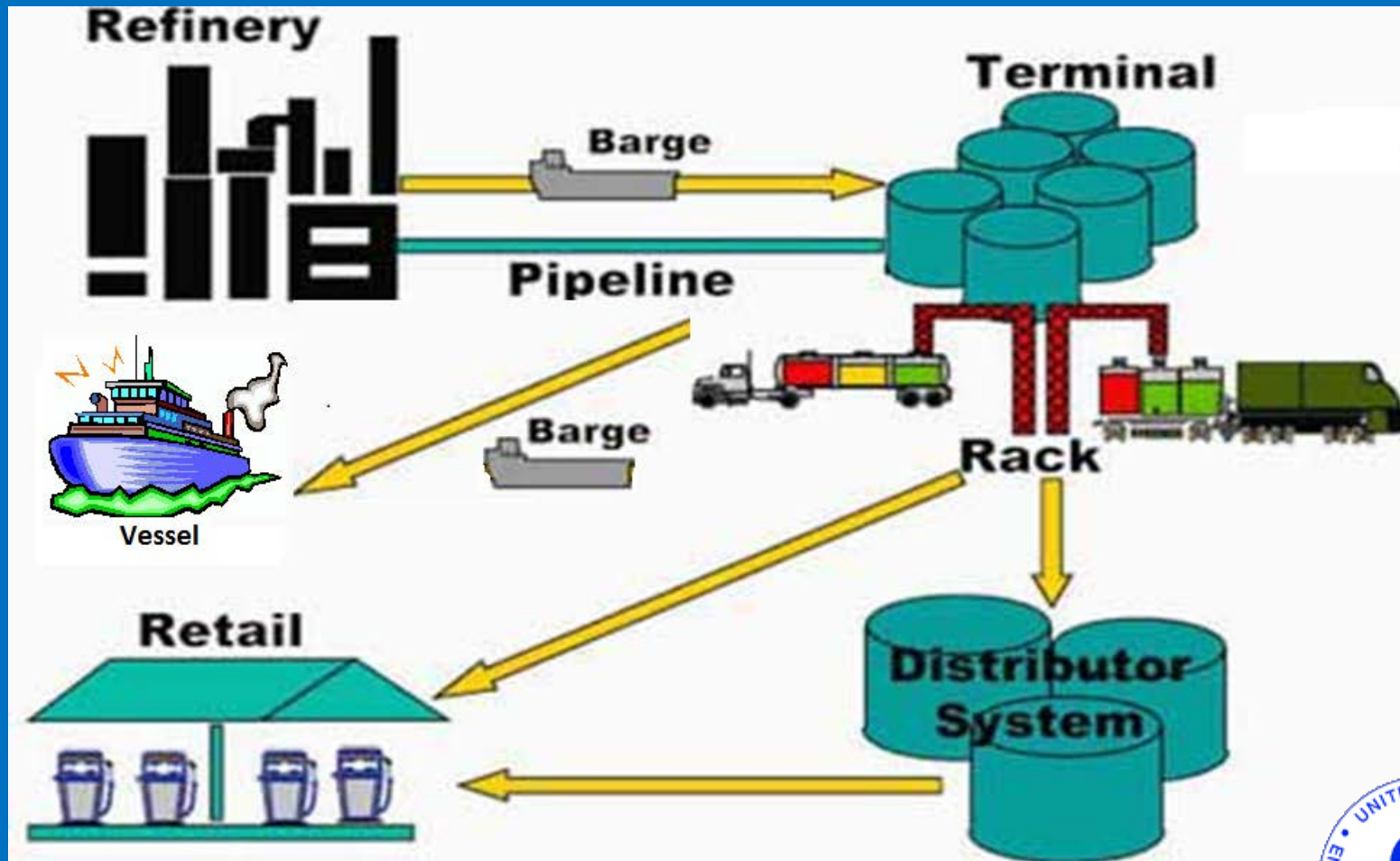


# Key Elements of Enforcement Program

- *Clear rules to enforce*
- *Inspections and investigations*
- *Penalties (civil, and maybe criminal) for violators*



# EPA Shoreside Fuel Enforcement



# EPA Shoreside Fuel Enforcement Refiner Obligations

- Refiners must sample and test fuel before introducing fuel into the distribution system
  - Sulfur must be tested under ASTM D2622 or other equivalent method per U.S. EPA regulations.
- Refiners must create and transfer Product Transfer Documents and/or Bunker Delivery Notes required for fuel transfers



# EPA Shoreside Fuel Enforcement Refiner Obligations

- *All persons in distribution chain must keep records.  
Records that must be kept by downstream parties:*
  - *Sampling and testing records*
  - *Product Transfer Documents & Bunker Deliver Notes*
  - *Records of actions to address non-compliant fuel*





# EPA Shoreside Fuel Enforcement Inspections

## *Overview of Inspections:*

- Question: *Who do we inspect?*
- Answer: *All parties in the distribution chain*
- *For all parties in the distribution system, EPA will review on-site records and take samples.*



# EPA Shoreside Fuel Enforcement Inspections

## Refinery Inspections

- Violations may occur at crude refineries if ECA fuel is produced above the 0.10 % sulfur standard
- EPA inspects refineries to evaluate compliance with fuel standards. Those audits involve:
  - Review of sampling, testing and lab procedures;
  - Review of lab reports; and
  - Review of Product Transfer Documents.



# EPA Shoreside Fuel Enforcement inspections

## *Downstream Inspections - Causes of Potential Violations:*

- *The terminal may blend two products to produce a 0.10 % product*
  - *Without proper blending quality assurance, this could be a potential source of fuel oil not meeting compliant specifications*
- *Commonly, ships receive fuel via barge. Barge operators may not have appropriate storage allotment for 0.10% fuel or Quality Assurance procedures.*
  - *Therefore, barge compartments may have high sulfur fuel heels left behind causing future contamination*



# EPA Shoreside Fuel Enforcement Inspections

## *Downstream Inspection Procedures:*

- Review records
  - *Blending records;*
  - *Product Transfer Documents and Bunker Deliver Notes; and*
  - *On or off-site lab testing of sulfur content.*
- Sample fuel for further analysis
  - *Obtain two samples for each batch of interest (one for screening, one for laboratory analysis)*
  - *Sampling procedures under ASTM D4057 (Referenced in specific ASTM Standard)*
- On-site testing via sulfur analyzer



# EPA Shoreside Fuel Enforcement On-site Sulfur Analyzer



# EPA Shoreside Fuel Enforcement Laboratory

## Testing of Fuel Sample

- *The laboratory sample is tested at EPA's National Vehicle and Fuel Emission Laboratory in Ann Arbor, Michigan.*
- *Samples must be shipped under proper chain-of-custody procedures.*
- *A chain-of-custody form which must accompany each sample shipped to the laboratory or when transferred to another party.*
- *The chain-of-custody form controls and records access to the samples for integrity of sampling result.*



# Presumptive Liability

- *EPA's fuel program has a presumptive liability structure where everyone in the distribution chain is liable for a violation due to the fuel exceeding the applicable standard (for example, sulfur content)*
- *When non-compliant fuel is detected, who is in violation?*
  - *The party that owns, leases or operates the facility found in violation*
  - *Each party that produced, transported, supplied or stored the fuel found in violation*
  - *Any refiner whose brand name appears at the facility found in violation*



# Presumptive Liability: Affirmative Defense

- *In order to assert a defense to the presumptive liability structure, the party in question must:*
  - *Demonstrate that the party did not cause the violation (demonstrate the violation was, or must have been, caused by another.)*
  - *Provide Product Transfer Documents indicating that fuel met standards*
  - *The party must have a quality assurance program of sampling and testing*
    - *This requirement does not include retailers and fleet fueling facilities*





# EPA Shoreside Inspections of ECA Fuel Excellent Compliance Rate



# EPA Shoreside Fuel Enforcement Civil Penalties

- *Main components of a civil penalty calculation:*
  - (1) *Economic Benefit*
  - (2) *Gravity*
  - (3) *Other adjustments – to achieve fair and equitable penalty*
- *Two main goals:*
  - (1) *Deterrence*
  - (2) *Level Playing Field*



# ECA Vessel Enforcement

- *All vessels targeted for a Port State Control (PSC) examination receive an ECA review as part of the PSC exam process.*
- *ECA review is administrative in nature, but is expanded if irregularities noted.*
- *Items typically reviewed:*
  - *IAPP certificate & supplement*
  - *Bunker Delivery notes*
  - *Fuel samples on board*
  - *logbook entries*



# ECA Vessel Enforcement Results

## U.S. Coast Guard

- *14 Enforcement Actions for violations of the ECA marine fuel requirements from January 2013 to February 2018*
- *Violations:*
  - *bunker delivery notes requirements,*
  - *fuel changeover procedures, and*
  - *sulfur standards*
- *Penalties ranged from \$1,500 - \$10,000.*



## ECA Vessel Enforcement Results U.S. Environmental Protection Agency

- *Resolved five cases for pre-2015 violations.*
- *All 5 ships detained by USCG for failure to changeover to 10,000 ppm ECA marine fuel.*
  - *Hamburg – \$13,491*
  - *Lady Maria Luisa - \$11,292*
  - *Four Bay - \$17,163*
  - *Pretty Lady \$14,767*
  - *King Yukon - \$15,179*



# Questions?

