U.S. Approach to ECA Compliance Assurance

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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
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?