

ECA Enforcement in the US

Johan Mellqvist, Space, Earth and Environment
Chalmers University of technology

Göteborg, Sweden

johan.mellqvist@chalmers.se

Alex Barber , California Air Resources Board



CHALMERS

US EPA / USCG

United States Coast Guard, on behalf of the US EPA, is primarily responsible for enforcement until 200 nm . They conduct their ECA inspections in conjunction with their regular port inspections.

Fee system based on economic benefit and gravity



EPA procedure , PSCO SOx compliance inspection

Check quality of fuel oil used on board the ship (VI/14; VI/18)

Pay attention to record required in regulation VI/14(6)

- Compliant sulphur content of fuel oil within SOx emission control areas
- Other equivalent approved means have been applied as required

Verify that master or crew followed necessary fuel oil changeover procedures, or equivalent, demonstrating compliance within SECA

Verify master or crew are familiar with bunker delivery procedures (BDN) and retained samples as required by regulation VI/18

NOx Technical Code Inspection

1. Examine such diesel engines to be consistent with the EIAPP Certificate and its Supplement, Technical File and, if applicable, Engine Record Book;
2. Examine diesel engines specified in the Technical Files to verify that no unapproved modifications, which may affect on NOx emission, have been made to the diesel engines;
3. Verify that any diesel engine which has been subject to a major conversion, as defined in regulation VI/13, has been approved
4. Verify emergency diesel engines in use solely for emergencies.



OGV Fuels Regulation Compliance

Alex Barber, Enforcement Division, alex.barber@arb.ca.gov

Modified and Presented by Johan Mellqvist (Chalmers)

Shipping and the Environment II
Gothenburg, Sweden, September 5, 2019



Regulated California Waters and SECA

California Health and Safety Code gives enforcement staff the authority to take samples

ECA (green) and Regulated California Waters (RCW) (dark blue)

Regulation since July 24, 2008; "Fuel Sulfur and Other Operational Requirements for Ocean-Going Vessels within California Waters and 24 Nautical Miles of the California Baseline"



OGV Fuels Regulation Key Provisions

- Requires use of cleaner fuels within 24nm zone off the California coastline and islands.
- Cleaner fuels, as of January 2014, means distillate fuel, Marine Gas Oil (MGO, DMA, DMX), Marine Diesel Oil (MDO, DMB) with sulfur limited to 0.1% by weight.
- Applies to Main Engines, Auxiliary Engines, Diesel Electric Engines, and Auxiliary Boilers
- Designed to reduce emissions (PM2.5: -88%, SOx: -96%, NOx: -6%)

