

Attachment A

Ship Operator Survey Form

Survey of Ship Operator Experience with the Use of Low Sulfur Distillate Fuel

The information below is designed to assist ARB staff in gathering information on ship operators' experience with using the marine distillate fuel required by the California Air Resources Board Ship Fuel Rule. If you are completing this survey in written format, please return the completed survey by **November 13, 2009** to:

California Air Resources Board
Stationary Source Division
P.O. Box 2815
Sacramento, CA 95812
Attn: Ms. Layla Gonzalez

The electronic version of the survey form can be found at www.arb.ca.gov/marine

Contact Information

Company Name: _____
Contact Name: _____ Title: _____
Phone Number: (____) _____ Email: _____ @ _____
Mailing Address: Street: _____
City: _____ State: _____
Country: _____ Zip: _____

Vessel type: Tanker Container Cruise Ro-Ro Auto Bulk
 Other _____

Vessel name: _____ IMO# _____

General Information on Operational Experiences with Fuel Switching per the California OGV Fuel Regulation

Since the OGV Fuel Regulation began implementation in July 2009, how many times has your vessel switched from heavy fuel to distillate fuel to comply with the requirements?

0* 1-3 4-8 More than 8 times

*If you checked the box marked zero (0) you do not need to complete the rest of the survey.

How would you describe your overall experience with the use of distillate fuel in your main engine, auxiliary engines, and auxiliary boilers since implementation of the ship fuel rule on July 1, 2009?

- Excellent - No problems to report
- Good – Some minor problems but were able to correct
- Challenging – Have had problems and haven't found a way to mitigate
- Other _____

If you marked good, challenging, or other, please briefly describe what problems you have encountered and any steps you have taken to mitigate them.

Did you test your engines or boilers for sensitivity to low sulfur/low viscosity fuel prior to visiting California under the regulation?

- Yes No

If yes, please describe how you tested the engines and your findings.

Have you made any equipment changes to your vessel to enable the use of distillate fuels?

- Yes No

If yes, please describe the changes made. _____

Have you developed and documented on-board fuel switching procedures for the crew members?

- Yes No

Have you had to modify your fuel switching procedures based on actual in-use experiences with fuel switching per the OGV fuel regulation?

Yes No

If yes, please describe the modifications to the fuel switching procedures.

Have you developed and documented training procedures to familiarize both current and new crew members in the proper fuel switching procedures for your vessel?

Yes No

What Ports have you found marine distillate fuel to bunker for compliance with the regulation?

Have you encountered problems finding the low sulfur distillate fuel? Yes No
If yes, please describe the problems you have had. _____

Have you made any operational changes as a result of switching to distillate fuels (i.e. changing crew assignments, transiting at different speeds, using different vessel routing)?

Yes No

If yes, please describe the changes you have made and the reasons for the change. _____

If you are chartering a vessel, are there any additional requirements from a vessel owner in order to use distillate fuels?

Yes No

If yes, please describe the additional requirements. _____

This portion of the survey focuses on incidents where there were problems with vessel operation but did not result in a reportable incident to the U.S. Coast Guard. If you have not had any significant operational problems, then you can stop here. If you have had some significant operational incidents that were not already reported to the United States Coast Guard, we would like to find out more about each incident. Please respond to the questions below for each incident.

Report of Specific Operational Incidents

General Information

Please provide a description of the problem (what happened, time or at what type of operation, vessel location etc.) _____

Vessel speed _____ Engine Load/RPM when problem occurred _____

Problem occurred during:

Transiting Maneuvering Anchorage Other _____

Did the problem occur:

During the process to switch fuels After fuel switching had occurred Both

Problem occurred during switch to: Distillate to HFO HFO to Distillate

Was there a tug escort when problem occurred? Yes No

Was there a Pilot on board when the problem occurred? Yes No

What do you think was the cause of the difficulties? _____

Have any actions been taken to resolve the problem? *Example: replacement of parts, different fuel used, fuel switching procedures changed, etc.*

Yes No

If yes, please describe: _____

Did you contact the classification society, engine, or equipment manufacturer about the problem? Yes No

If yes, who was contacted and what was the opinion on the source of the problem?

Technical Information on the Engine/Equipment and Fuel Used during the Operational Incident – Please fill out applicable survey questions for this section.

Equipment/engine with noted problems

Equipment/Engine Type	Make	Model	Date of Build	Date of Last Service	Comments
Main Engine(s)					
Auxiliary Engine(s)					
Auxiliary Boiler(s)					
Fuel Supply Pump					
Booster Pump					
Fuel Injection Pump					
Fuel Injectors					
Other:					

Fuel Specifications for Fuels In-Use During the Operational Incident

Fuel Type (HFO/MGO/MDO)	Fuel Sulfur Content	Viscosity (cSt @ 40C)	Where purchased	Estimate of the percentage of listed fuel used to supply the engine/equipment when the problem occurred	Please indicate any additives used

If more than one fuel in the tank, please provide information for each.

If possible, please supply a copy of the bunker delivery note, or other information from testing ordered by ship operator.

What lubricant (cylinder lube-oil) was used? _____

What was the feed rate of the lubricant? _____

What is the current fuel injection pump index and the index of a new pump (if known)?

Please provide any information on estimated fuel temperature or viscosity at engine inlet during the incident (if known).

Any other comments/observations you would like to report?

