



STATE OF WASHINGTON  
BOARD OF PILOTAGE COMMISSIONERS

2901 Third Avenue, Suite 500 \* Seattle, Washington 98121 \* (206) 515-3904 \* FAX (206) 515-3906  
www.pilotage.wa.gov

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**SAFETY ADVISORY BULLETIN 15-01**

**November 19, 2015**

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Recently the Puget Sound Pilotage District has experienced a number of losses of propulsion. Causes are hard to pinpoint because these losses appear to be caused by cumulative causal factors that include engineering practices, fuel switching, and engine maintenance to name a few. The Board would like to encourage mariners to review and update their marine engineering practices/processes, as appropriate, and as part of this work, include the steps and cautions in the below U.S. Coast Guard low sulfur fuel oil Marine Safety Alert 02-15, dated March 3, 2015, reiterated verbatim below. Link: to U.S. Coast Guard Headquarters Marine Safety Alert 2-15 [PDF][Inspections and Compliance Directorate Ultra Low Sulfur ...](#)

“U.S. Coast Guard, Department of Homeland Security, Inspection and Compliance Directorate  
March 3, 2015, Safety Alert 2-15  
Washington, DC

**Ultra Low Sulfur Fuel Oil & Compliance with MARPOL Requirements  
Before entering and while operating within Emission Control Areas**

This safety alert updates Safety Alert 2-15, dated March 3, 2015, by adding two additional recommendations highlighted in red.

The Coast Guard has confirmed several reports it has received stating that main engines may not attain the expected speed when using ultra low sulfur fuel oil. As such, the Coast Guard has revised its list of recommendations to vessel owners and operators about the importance of establishing effective fuel oil changeover procedures to comply with MARPOL Annex VI emission regulations.

The Coast Guard **strongly recommends** that vessel owners and operators ensure the following measures are completed as part of their fuel oil switching procedures:

- Ensure fuel oil switching is accomplished outside of busy traffic lanes and the ECA. Generally the ECA is 200 nm from the North American Coast and 50 miles from the U.S. Caribbean coast (e.g., the Commonwealth of Puerto Rico and the U.S. Virgin Islands);
- Utilize their technical resources to develop safe operations and maintain full compliance with emission requirements;

- Consult with engine and boiler manufacturers for fuel oil changeover guidance and to determine if system modifications or additional safeguards are necessary;
- Consult fuel suppliers for proper fuel selection;
- Ensure all sensors, controls and alarms (e.g., pressure, temperature, viscosity, differential pressure, and flow indicators) are operational and function as designed;
- Ensure system piping, seals, gaskets, flanges, fittings, brackets, etc., are maintained;
- Ensure detailed system schematics are available;
- Review and update fuel oil changeover procedures as needed;
- Establish a fuel oil system inspection and maintenance schedule;
- Remember that the energy content of a given volume of ULS fuel oil may differ from residual fuel, such that existing throttle settings may not give the desired propeller shaft RPM or generator loads; performance and speed trials on ULS fuel oil may need to be conducted;
- (New) As part of the master-pilot information exchange (as required by 33 CFR 164.11(k)), discuss the vessel's maneuvering characteristics, including any change in RPMs associated with ULS fuel oil;
- (New) Determine if using ULS fuel necessitates amendments to the pilot card (see IMO RES A.601(15) and NVIC 7-89);
- Review and update fuel changeover procedures based on lessons learned;
- Provide initial and periodic crew training for accomplishing safe, effective and leak-free fuel switching; and
- Anticipate that there may be many technical challenges for operators when beginning to use ULS fuel oil as a matter of routine and compliance. These range from excessive leakages of fuel system components, increased wear and tear on these components, lack of lubricity of the fuels, and the need for possible changes in maintenance schedules, operational methods, etc.

This Safety Alert is provided for informational purposes only and does not relieve any domestic or international safety, operational or material requirement. Questions should be forwarded to the Coast Guard Office of Commercial Vessel Compliance, Foreign and Offshore Vessel Division (CG-CVC-2) at **202-372-1218** or by email at [CGCVC@uscg.mil](mailto:CGCVC@uscg.mil).

Link to original safety alert: <http://www.uscg.mil/hq/cg5/cg545/alerts/0215.pdf>

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Note: ***The Coast Guard has collected the following links (go to the U.S. Coast Guard link, [Inspections and Compliance Directorate Ultra Low Sulfur ... to view these documents](#)) from open internet sources and reposted them for informational purposes only. Their inclusion here is not an endorsement or expression of preference of any kind towards any specific publication or organization.***

- [MAN B&W Operation on Low Sulfur Fuels](#)
- [Wartsila Low Sulfur Fuel Guidelines](#)
- [Steamship Mutual – Risk Alert: ECAs Low Sulfur Fuel Oil Changeover Procedures](#)
- [International Council on Combustion Engines - Guidelines for the Operation of Marine Engines on Low Sulfur Fuel](#)
- [ABS Fuel Switching Advisory Notice](#)”