

**MARINERS' ADVISORY COMMITTEE FOR THE  
BAY AND RIVER DELAWARE  
QUARTERLY MEETING MINUTES  
June 14, 2012**

The Regular Quarterly Meeting of the Mariners' Advisory Committee for the Bay and River Delaware was held June 14<sup>th</sup>, 2012 at Ristorante LaVeranda Philadelphia. Captain Stephen Roberts presided over the meeting. Captain Roberts called the meeting to order at 1100 hours. The meeting was attended by 49 Members, Associate Members, and interested parties.

**I. Welcome**

Captain Roberts welcomed members and guests and our new Captain Of the Port, Kathy Moore.

**II. Reading of the Minutes**

Captain Jim Roche moved that the reading of the minutes from the previous meeting be approved, John Reynolds seconded. All approved.

**III. Report of the Treasurer**

MAC Treasurer Rick Iuliucci welcomed new members FCC Environmental and Atlantic Wind Connection. Captain Iuliucci reported a balance of \$9,239.84.

**IV. Aids to Navigation USCG**

John Walters reported on the following lights and projects and distributed a detailed report on the following:

Maintenance and Improvements projects

1. Miah Maull Shoal Light
2. Delaware Bay Light 32
3. Delaware Bay Light 42
4. Construction Tender Operations  
CGC Sledge (Fisher Point Range, Front Light and Keystone Range)
5. LED optics

Future AtoN Improvements

1. Baker Range
2. Delaware River and Bay Deepening Projects
3. Replacement of Liston Range, Reedy Island Range and New Castle Range

Navigation Items of Interest

1. Offshore Renewable Energy Installations (OREIs)
2. Offshore Anchorages
3. Sound Signals
4. Atlantic Coast Port Access Route Study
5. GPS Interference tests

Mr. Walters added that Reedy Island Light is in a bad state of repair.

## **V. NOAA**

Jon Swallow reported the following: We commissioned a new survey ship; a state-of-the-art catamaran-style vessel that replaces the hydrographic survey vessel RUDY. It's 150 feet long, has a wide beam with two hulls for two sonars to cover a wide area and for 3-D mapping.

A new *Coast Pilot* is in production and will be available on-line free as a PDF.

Darren Wright reported the following:

The air gap sensor on the Reedy Point Bridge has been moved to allow for painting. The sensor is operational in its new position. The Reedy Point Current Meter has been difficult to keep operational and is now being discontinued. Since the current predictions there are 96% accurate, we'll continue post this on-line and on the mobile app. He added that they are looking at putting a current meter in Delaware City.

There is a new app for "Tides and Currents" now available.

## **VI. Sector Delaware Bay**

COTP Kathy Moore reported the following:

Various Safety Zones are now in place for the upcoming fireworks activities: June 30<sup>th</sup> and July 7<sup>th</sup>.

Red Bull is hosting a water event on September 15<sup>th</sup>. More information will follow.

## **VII. Army Corps of Engineers (ACOE)**

Tim Rooney distributed his report and commented on the following:

See distribution.

1. Delaware River, Philadelphia to Sea & Main Channel Deepening
2. Wilmington Harbor
3. Delaware River: Philadelphia to Trenton
4. Salem River
5. Schuylkill River
6. C&D Canal

One correction noted under Main Channel Deepening....notice to proceed.... should read ... "in August."

It was reported that Scott Evans is the Project Manager for the Deepening Project and may have a time line available. Currently, that time line is set for completion around 2016, 2017.

Reach D, near the Salem Power Plant, is the next reach to be done by a hopper dredge in December.

He added that they'd be using the services of the MAC to help distribute notifications of work areas.

Captain Steve Roberts reported that there is scaffolding right now on the Reedy Point Bridge reducing the air gap. He added that he communicated with the C&D Canal dispatchers to remind all traffic of the reduced air gap.

The Woods Hole Group is conducting a water quality project for the City of Philadelphia. They have 3 buoy locations; Eagle Point (abeam of 46), Marcus Hook and one "up river". They were contacted about the Eagle



Point buoy as a hazard to navigation and are in the processing of moving. As of the date of the publication of these minutes, the Eagle Point buoy has been moved to the New Jersey side of the river between buoys "44A" and "46" and is no longer a hazard to navigation.

Norfolk Dredging is doing core samples in various points and will be on AIS. They can move whenever necessary.

Captain Roberts noted the handout from Professional Mariner regarding low sulfur diesel. They've been using this fuel on the west coast for a few years and the new starting date for traffic here is now December. He asked that agents please distribute this to your ships.

The next National Harbor Safety Conference is scheduled for August 28-30<sup>th</sup> in Pittsburgh. He added that he'd like to see the 2014 Conference here to coincide with the 50<sup>th</sup> anniversary of the MAC.

Captain Roberts made note of his new business card and updated email address [chairman@macdelriv.org](mailto:chairman@macdelriv.org)

### **VIII. Old Business**

Captain Roberts reported on the following:

#### **1. MAC Website**

There have been 7,600 hits on the new MAC website and encouraged members to login and sign up at [www.macdelriv.org](http://www.macdelriv.org)

#### **2. Anchorages**

Captain Roberts made the following notes regarding tugs/tows anchoring at MHA and MCA.

- a. There are too many that don't need to be there
- b. There are too many that stay longer than the 48-hours
- c. There are too many not using the extreme ends therefore taking valuable tanker space.

He added that this week alone there were two instances of ships being held out due to tugs taking up space that causes problems with scheduling and other issues. So please use MHA responsibly.

#### **3. Presentations**

Two presentations during the meeting were made; one from ACPARS and from the Atlantic Wind Connection.

### **IX. Adjournment**

Captain Roberts announced the next meeting of the MAC is scheduled for September 13<sup>th</sup> at 1100 hours at the LaVeranda Restaurant in Penn's Landing.

With no further agenda items or discussion, John Reynolds moved that the meeting be adjourned. Captain Jim Roche seconded. The meeting was adjourned at 1228 hours.



**Mariners Advisory Committee  
for the Bay & River Delaware  
June 14, 2012**

Maintenance and Improvement projects:

**Miah Maull Shoal Light:** We have completed operational designs to convert the optic in this light to a duplex Vega VLB 44 8-tier LED lantern, to remove the classical Fresnel lens and to remove the red sector. The horn and RACON will be retained. A contract has been awarded to design the power system for the new LED optic. The designed power system is being provided to the New Jersey State Historic Preservation Officer, as required by Section 106 of the National Historic Preservation Act as part of the consultation process. Based upon feedback after last quarter's meeting, we've investigated the possibility of retaining the red sector, with an LED option. Due to a very recent advancement in technology, a LED red sector option is available. As soon as funds become available, and upon completion of the New Jersey SHPO consultation, we'll proceed with the solarization of Miah Maull Shoal Light and Elbow of Cross Ledge Light. Miah Maull will be offered for sale by the General Services Administration this summer.

**Delaware Bay Lt 32:** Contract drawings for reconstruction of the light have been reviewed by Civil Engineering Unit Cleveland and our office. We had anticipated construction to begin during the CY12 construction season however, it may not occur until 2013. As soon as we know, we'll notify the committee. Since last meeting, it has become more evident that the probability of a CY12 construction is decreasing.

**Delaware Bay Lt 42:** Based upon feedback from last quarter's meeting, this aid will be changed to a lighted buoy.

**Construction Tender Operations**

**CGC SLEDGE** had planned to perform construction operations in the Delaware River this spring and summer; unfortunately it holed itself while approaching a destroyed aid to navigation and was also delayed in returning to operational status due to the discovery of friable asbestos aboard its construction barge during the repairs to the barge. Depending upon repair/remediation progress SLEDGE could be in the Delaware later this year or next spring, when she will attend to **Fisher Point Range Front Light** and **Keystone Range**.

**LED optics:** We continue to change out incandescent optics with LED optics, with our first priority being buoys, followed by major and minor lights. Several years ago, Captain Joe Bradley asked that the brightest lights possible be installed on buoys, and we did, however in some cases, the intensities produced were still insufficient for the identified operational range and environmental conditions. With LEDs, the Coast Guard can now provide an optic that meets the design operational range, provide a signal that will compete favorably with environmental conditions and can be economically solar powered. The optics are being changed-out in conjunction with either scheduled buoy hull reliefs or with battery recharge schedules. Your comments regarding the newer optics are appreciated.

Comments to the Study are being categorized and analyzed by the Coast Guard Atlantic Area. Mr. Emile Benard, representing the Coast Guard Atlantic Area, and the Project Coordinator, is here to provide a status of the Study.

**GPS interference tests:** GPS tests are anticipated to be conducted within the Fifth Coast Guard District near Patuxent River, Md. during the following dates and times:

03 Jul 2012 - 07 Jul 2012, 1300Z - 2200Z

10 Jul 2012 - 14 Jul 2012, 1300Z - 2200Z

17 Jul 2012 - 21 Jul 2012, 1300Z - 2200Z

24 Jul 2012 - 28 Jul 2012, 1300Z - 2200Z

31 Jul 2012 - 04 Aug 2012, 1300Z - 2200Z

07 Aug 2012 - 11 Aug 2012, 1300Z - 2200Z

14 Aug 2012 - 25 Aug 2012, 1300Z - 2200Z.

If abnormalities are observed, at any time, please notify the Coast Guard Navigation Center

Contact Information:

dGPS Navigation Information	(703) 313-5902	<a href="http://www.navcen.uscg.gov">www.navcen.uscg.gov</a>
Fifth District Local Notice to Mariners		<a href="http://www.navcen.uscg.gov/lnm/d5/">www.navcen.uscg.gov/lnm/d5/</a>
AtoN Discrepancy reports: <b>Sector Delaware Bay:</b>		215-271-4940, CH 16 VHF-FM

Send items for publication in the Fifth District Local Notice to Mariners to: [william.r.jones@uscg.mil](mailto:william.r.jones@uscg.mil).

Our address is: Commander (dpw)	e-mail address:lonnie.p.harrison@uscg.mil
Fifth Coast Guard District	john.r.walters@uscg.mil
431 Crawford Street	
Portsmouth, Va. 23704	





## Mariners Advisory Committee for the Bay and River Delaware - 6/14/12

Chart	Title	Scale	Edition	Print Date	Current Crit Count
11009	Cape Hatteras to Straits of Florida	1,200,000	39	Apr-11	9
12210	Chincoteague Inlet to Great Machipongo Inlet; Chincoteague Inlet	80,000	38	May-08	229/112
12211	Fenwick In to Chincoteague Inlet; Ocean City Inlet	80,000	44	Feb-11	98
12214	Cape May to Fenwick Island	80,000	49	Nov-10	14
12216	Cape Henlopen to Indian River Inlet; Breakwater Harbor	40,000	28	Apr-08	111
12221	Chesapeake Bay Entrance	80,000	81	Apr-11	121
12222	Chesapeake Bay Cape Charles to Norfolk Harbor	40,000	53	Oct-11	101
12224	Chesapeake Bay Cape Charles to Wolf Trap	40,000	25	Apr-11	34
12225	Chesapeake Bay Wolf Trap to Smith Point	80,000	60	Nov-11	15
12226	Chesapeake Bay Wolf Trap to Pungoteague Creek	40,000	18	Jul-09	53
12228	Chesapeake Bay Pocomoke and Tangier Sounds	40,000	33	Oct-11	22
12230	Chesapeake Bay Smith Point to Cove Point	80,000	65	Oct-11	39
12231	Chesapeake Bay Tangier Sound Northern Part	40,000	29	Oct-11	17
12233	Potomac River Chesapeake Bay to Piney Point	40,000	37	Jan-07	128/14
12235	Chesapeake Bay Rappahannock River Entrance, Piankatank and Great Wicomico Rivers	40,000	33	Jul-11	25
12237	Rappahannock River Corrotoman River to Fredericksburg	40,000	27	Sep-03	155
12238	Chesapeake Bay Mobjack Bay and York River Entrance	40,000	40	Jun-09	78
12241	York River Yorktown and Vicinity	20,000	22	Feb-08	80
12243	York River Yorktown to West Point	40,000	14	Nov-09	8
12245	Hampton Roads	20,000	67	Aug-08	185/156
12248	James River Newport News to Jamestown Island; Back River and College Creek	40,000	42	Jan-08	210/165
12251	James River Jamestown Island to Jordan Point	40,000	23	May-01	131/54
12253	Norfolk Harbor and Elizabeth River	20,000	47	Apr-12	17
12254	Chesapeake Bay Cape Henry to Thimble Shoal Light	20,000	49	Aug-11	21
12255	Little Creek Naval Amphibious Base	5,000	17	Oct-08	36/14
12256	Chesapeake Bay Thimble Shoal Channel	20,000	17	Oct-11	13
12261	Chesapeake Bay Honga, Nanticoke, Wicomico Rivers and Fishing Bay	40,000	29	Jun-06	209/73
12263	Chesapeake Bay Cove Point to Sandy Point	80,000	55	Apr-07	239/129
12264	Chesapeake Bay Patuxent River and Vicinity	40,000	30	Jul-07	118
12266	Chesapeake Bay Choptank River and Herring Bay; Cambridge	40,000	30	Dec-09	95
12268	Choptank River Cambridge to Greensboro	40,000	11	Apr-08	61
12270	Chesapeake Bay Eastern Bay and South River; Selby Bay	40,000	35	May-11	93

Charts shaded orange are tentatively scheduled to be released as a new edition within the next 3-4 months. Charts shaded blue were released as a new edition since the last meeting. Charts shaded green are revised reprints.



**Philadelphia District Corps of Engineers Project Status Update**  
**Mariners Advisory Committee for the Delaware River and Bay**  
**14June2012**

**Delaware River, Philadelphia to Sea & Main Channel Deepening**

The Reach A is scheduled for advertise on 29May2012, award contract 19July2012, and notice to proceed 19July2012. Contract consists of new work dredging within the Delaware River which will include dredging of the Philadelphia Harbor, East Horseshoe, Horseshoe, Eagle Point, Mifflin, Billingsport, and Tinicum Ranges of the Delaware River main channel. The Dredging shall be required to a depth of 45 feet MLLW plus 1-foot allowable over depth, approximately 1mcy of material will be removed to deepen the channel.

The FY12 annual maintenance dredging contract is scheduled for advertisement on 26 Jun 12. The contract is for maintenance dredging of the 40-foot channel including Marcus Hook and New Castle Ranges. Approximately 1.5m cy will be dredged and placed into upland disposal areas known as Killcohook CDF and Pedricktown South CDF. The contract is scheduled for award 16 Aug 12.

**Wilmington Harbor**

A contract for maintenance dredging of both the 35-foot and 38-foot channels was advertised on 16 Apr 12. Bid opening was held on 16 May 12. Norfolk Dredging Company was the successful low bidder with a price of \$2,038,198.78. The estimated quantity of shoaling to be removed is 445,153 cubic yards. The government-owned Wilmington Harbor North disposal area located at Cherry Island will be utilized for the containment of the dredge material. The Notice to Proceed is scheduled for 20 Jun 12. Contract duration is 40 days.

**Delaware River, Philadelphia to Trenton**

The Philadelphia District has received approval from our Higher Authority to utilize the remaining Dredge McFarland "Training Days" to perform emergency maintenance dredging of heavy shoaling presently in-place between the Tacony Palmyra and Burlington Bristol bridges. As this shoaling was caused by the late summer (Irene) and early fall (Lee) storm events, the much needed dredging has qualified for emergency supplemental Operation and Maintenance funds appropriated under the Disaster Relief Appropriations Act of 2012, P.L. 112-77. Dredging has been accomplished removing shoals located on the Tacony, Mud Island, Enterprise Beverly, Edgewater and Devlin Ranges of the 40-foot channel. The dredging plan will be very similar to the emergency dredging recently completed this past October 2011. The Palmyra disposal area is being utilized for dredged material containment. Dredging operations are going well and on schedule to be completed on 15 Jun 12. Most of the material removed to date has been very heavy sand and stone.

**Salem River**

This fiscal year funds were appropriated for Salem River Project under the Disaster Relief Appropriations Act of 2012, P.L. 112-77. The contract consists of maintenance dredging of the 16-foot project from 3+400 to 15+500. The contract was advertised on 8 Jun 12 and the scheduled bid opening is 10July2012 with contract award scheduled for 31July2012. The Government-furnished disposal area available for this contract is Killcohook, Area 1, with an estimated 200K cy of material being dredged.

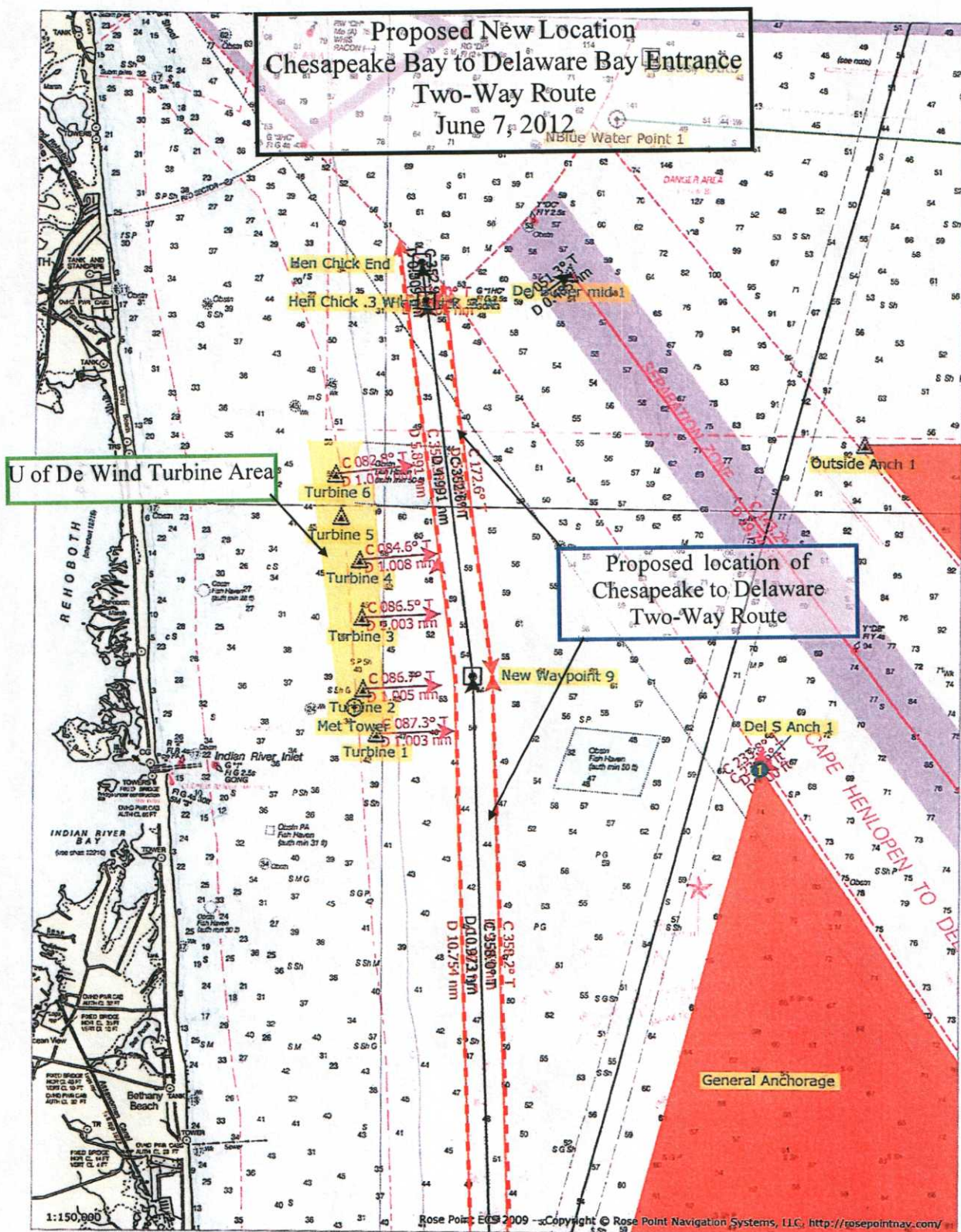
**Schuylkill River**

This fiscal year funds were appropriated for Schuylkill River under the Disaster Relief Appropriations Act of 2012, P.L. 112-77. The contract consists of maintenance dredging of the 33-foot project from 0+600 to 16+023. The contract is scheduled for advertisement on 10July2012 with contract award for 30Aug2012. The Government-furnished disposal area available for this contract is Fort Mifflin Containment Site, Area A, with an estimated 300K cy of material being dredged.

**Chesapeake and Delaware Canal**

Summit Bridge and Reedy Point Bridge Painting and Miscellaneous Steel Repairs will be on-going through the Summer.





**Not for Navigation**



# PROFESSIONAL MARINER

Issue Date: Issue #153, Dec/Jan 2012,

Guidelines for preventing loss of propulsion after switch to low sulfur fuel  
Jeff Cowan

The California Air Resources Board (ARB) created regulations for vessel emissions reductions for California waters as part of its continued mission to improve air quality around the state. These requirements came into effect in July 2009.

The regulations require that oceangoing vessels within 24 nautical miles of the California coast burn either marine gas oil (MGO) with a maximum of 1.5 percent sulfur or marine diesel oil (MDO) with a maximum of .5 percent sulfur in their main and auxiliary engines.

Following the implementation of the regulations, California witnessed a 100 percent increase in loss of propulsion (LOP) incidents within state waters during 2009. In 2010, California saw 54 LOP incidents compared with 24 in 2008 (the last full year before the regulations took effect).

The LOPs can be loosely categorized into six groups for ease of discussion:

## Group 1

In Group 1, engine failures resulting in the LOP result from the inability of the main engine, operating with MGO/MDO, to overcome the forces on the propeller from the forward momentum of the ship. The engine may turn over at higher rpm and initiate combustion; however, as the engine reduces speed to come to dead slow or slow astern, there are not enough BTUs in the fuel to maintain engine inertia. The engine stalls with the subsequent LOP.

## Group 2

In Group 2, failures resulting in the LOP result from problems controlling the temperature of the MGO/MDO. Each engine has specifications as to the temperature range required to operate using either heavy fuels or lighter fuels. For example, the optimal temperature range for an engine might be 135°C for a heavy fuel oil (HFO) and 40°C for the MGO. Because heavy fuels must be heated (for the right viscosity to burn) and lighter fuels may not need to be heated, there are problems associated during the fuel switchover in both heating and cooling the different systems since the fuel oil is supplied through the same auxiliary systems. Heating an MGO/MDO may cause "flashing" of the lighter fuel oil to vapor. The fuel injectors would not work when the fuel flashes, causing a loss of power in that cylinder. Multiple cylinder flashes could result in LOP.

## Group 3

In Group 3, failures resulting in a LOP are associated with the loss of fuel oil pressure to either the fuel pumps or fuel injectors. The loss of pressure could be a result of many factors, including wrong control set points, use of bypass valves, inoperable equipment, inattention to operating condition or excessive leakage through O-rings and seals.



- Operate main engine from the engine control room.
- Operate main engine from engine side (local).

Crew should become familiar with "failure to start" procedures while maneuvering and establish corrective protocols for "failure to start" incidents.

The air and fuel in the start sequence can be adjusted in the engine control room and at engine side. These items cannot be adjusted from the bridge on most ships; hence, the provision of the advisory/guide establishes protocols for dealing with the "failure to start" scenario as outlined in LOP groups 1 and 2.

Too many ships have run out of "start air" because they continue to initiate starts from the bridge, where control of the fuel rack and amount of air for starting cannot be adjusted.

While underway after fuel switching is completed (HFO to LSDFO), ships should ensure that one of the senior engineering officers is in the engine control room while the ship is in pilotage waters. This engineering officer must be available to operate the ship main engine from the engine control room and to operate the ship main engine from engine side (local).

In following this recommendation concerning the presence of a senior engineering officer, special attention should be paid to the International Standards of Training, Certification and Watchkeeping (STCW) rest requirements. It has been proven too many times that fatigue can cause errors in judgment which could contribute to an LOP incident.

Some ships have the chief engineer down in the engine room for the fuel switchover. Then the chief engineer retires for rest while assigning the other senior engineer to stand by in the engine room, mitigating groups 1, 2, 3, 4, 5 and 6.

### **Engine guidelines**

The following Engine Advisory Guidelines were taken from the U.S. Coast Guard MSA 03-09 with additions and clarifications from industry partners.

- Consult engine and boiler manufacturers for fuel switching guidance.
- Consult fuel suppliers for proper fuel selection. Exercise strict control when possible over the quality of the fuel oils received.
- Consult manufacturers to determine if system modifications or additional safeguards are necessary for intended fuels.
- Develop detailed fuel switching procedures.
- Establish a fuel system inspection and maintenance schedule.
- Ensure system pressure and temperature alarms, flow indicators, filter differential pressure transmitters, etc., are all operational.