



NMA REPORT #R-279, Revision 8

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[Formerly Gulf Coast Mariners Association, Founded in 1999.]

**REQUEST TO CONGRESS: TO REVIEW AND SET SAFE MANNING STANDARDS  
FOR MARINERS SERVING ON TOWING AND OFFSHORE SUPPLY VESSELS**

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Edited by: Captain Richard A. Block, Secretary, National Mariners Association**

**TABLE OF CONTENTS**

Executive Summary .....	1
What is the National Mariners Association .....	2
Substandard Manning Levels for Engineers on OSVs >200 Gross Register Tons (GRT).....	3
Relating Our Chief Engineer's Work Experiences on OSVs.....	4
Why Our Association Criticized a NOSAC Manning Report for Large Offshore Supply Vessels .....	5
Future Plans for Manning Super Supply Boats >6,000 Gross Tons .....	8
Manning Practices on Smaller Offshore Supply Vessels Between 100 & 200 GRT.....	9
Manning Tugboats and OSVs: Collision Between Tug La Madonna and the new OSV GREG DANOS.....	10
Undermanning on Super Crewboats of less than 100 Gross Tons .....	11
Tonnage Regulation Loophole Allows a 4-Man Crew to Operate a 185-foot Offshore Supply Vessel .....	12
Undermanned "Super Crewboats of less than 100 Gross Tons .....	14
Untrained Deckhands are Dangerous.....	14
Death in the Engine Room.....	15
Possible Roles for Advisory Committees in Handling Manning Issues .....	16
Important Mariner Health Issues.....	17
Other Reports of Work Hour Violations.....	18

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**EXECUTIVE SUMMARY**

Although Congress repeatedly addressed questions of work hours and vessel manning in the past, enforcement of the applicable statutes falls upon the U.S. Coast Guard. Our Association has strong reservations about their performance in enforcing work-hour and manning statutes and, in several cases, about their interpretation of these statutes.

While the three-watch system prevails in the deep-sea merchant marine watched over by labor unions of contracted employees, by contrast the two-watch system prevails among lower-level mariners.

On vessels that work around-the-clock on a 24-hour basis, a two-watch system for licensed officers translates into a work-week of at least 84 hours. Management often abuses the extent of these work hours while Coast Guard officials turn their backs unless a serious casualty results. For unlicensed personnel including tankermen, deckhands, unlicensed engineers, deckhands, and cooks **there is often no applicable statutory work-hour limit established.**

The Coast Guard supervises manning on inspected vessels by specifying the number of crewmembers assigned to a vessel on the vessel's Certificate of Inspection. Although they establish guidelines in Volume 3 of the Marine Safety Manual, these guidelines can be altered on a case by case basis by an Officer-in-Charge Marine Inspection who may have no personal knowledge of conditions on board any given vessel.

Unfortunately for our lower-level licensed and unlicensed mariners who serve on vessels of up to 1,600 gross register tons, the process of bringing over 5,200 towing vessels under the protection of inspection regulations has dragged on for four years without producing a final set of regulations. In fact, the Coast Guard tells us that they will not even include manning and work-hour issues when they finally propose new towing vessel inspection regulations.

Our mariners believe that the Coast Guard has taken the side of management by failing to vigorously enforce the existing work-hour statutes and allows the continual exploitation of our mariners. Overwork and stress adversely affecting our mariners' safety, health, and welfare.

The Coast Guard "packed" the Towing Safety Advisory Committee (TSAC) and sidetracked every work-hour and manning issue our Association presented to the committee. The most recent example deals with the Safe Management of Crew Travel Time.<sup>(1)</sup> By removing this issue from the well-established venue of TSAC<sup>(2)</sup> and encouraging a joint effort with the American Waterways Operators in 2007 to define the issues, the Coast Guard effectively eliminated any meaningful input by the working mariners who encounter these problems on every crew change. [<sup>(1)</sup> Report #R-370-I, Safe Management of Crew Travel Time. <sup>(2)</sup> Report #R-370-D, Rev. 5, Work-Hour Abuse, Whistleblower Protection and "Deadhead Transportation."]

This report examines the conditions that exist throughout the fleet of commercial vessels of less than 1,600 gross register tons (domestic) and up to 6,000 tons as measured by the international tonnage convention. It also touches upon proposals to increase the definition and tonnage of offshore supply vessels (OSV) over and above the existing 6,000 ton statutory limit and prescribe manning requirements for these new vessels. In effect, we believe the licensed officers working on these new ships should be fully trained upper-level officers.

The report also cites additional reports that examine additional areas that affect our lower-level licensed and unlicensed. We welcome requests by Members of Congress for any of the other reports cited herein.

## WHAT IS THE NATIONAL MARINERS ASSOCIATION?

The National Mariners Association, formerly the Gulf Coast Mariners Association, is a voluntary mariner membership organization composed primarily of lower-level mariners who work in the inland and offshore commercial towing industry and in the offshore oil industry. The Coast Guard coined the term "lower-level" to refer to mariners who are licensed or certificated to serve on all commercial vessels of less than 1,600 gross register tons. Understandably, many mariners find the term "lower-level" both offensive and degrading!

The National Mariners Association (NMA) assigns our HIGHEST PRIORITY to asking Congress to require the Coast Guard to develop an ongoing process that actively includes lower-level working mariners in reviewing existing national manning standards that govern all "lower-level, limited tonnage" mariners who work on offshore supply vessels (OSV) and towing vessels (UTV) throughout the maritime industry.

Our ongoing study of the problem of undermanning reveals:

- Existing 46 CFR Part 15, as it affects personnel serving on uninspected towing vessels, is poorly written and difficult for working mariners and others, including many in management, to comprehend.

- The approach used in 46 CFR §15.601 to assign "applicability" of manning regulations by section number is especially confusing. Its ambiguous wording also is confusing.

**[NMA Comment: We reported these shortcomings at the Coast Guard's Towing Safety Advisory Committee (TSAC) meetings on several occasions in 2001 as in need of a regulatory correction.]**

- Untrained or poorly trained entry-level personnel are assigned to many OSVs and towing vessels with very high crew turnover rates. The towing industry fails to attract and retain sufficient personnel to keep abreast of anticipated future growth. The result was a growing industry-wide personnel shortage noted as early as 2000.

**[NMA Comment: High turnover rates and the inability to recruit new mariners result from the industry's abuse of its lower-level mariners over a long period of time. Recruiting foreign crewmembers to work for lower wages on U.S.-flag vessels will not be an acceptable solution to this problem.]**

- While there is an emphasis in filling slots for licensed personnel to meet existing mandatory regulatory requirements, there has been a total absence of requirements to train engineroom personnel on either inspected OSVs or uninspected towing vessels of less than 200 gross tons. Consequently, there are few formal training classes or facilities to prepare lower-level licensed or unlicensed engineers, deckineers, or oilers.

**[NMA Comment: Refer to our Report #R-428, Rev.1. Oct. 23, 2006. Report to Congress: The Forgotten Mariners. Maritime Education & Training for Entry-Level Deck & Engine Personnel. We informed both Congress and the NTSB of this problem.]**

**[NMA Comment: We urge industry to support technical training programs to develop trained entry-level engineers to maintain and repair every vessel that Congress requires to be inspected.]**

- On most small commercial vessels, the master and/or mate work their way up through the ranks. This "on-the-job" training is supposed to provide sufficient knowledge and hands-on experience to maintain an increasingly sophisticated engineering plant. Often, it is little more than the blind leading the blind. If licensed deck officers are expected to maintain and often repair or adjust the engineering plant, in many cases they cannot do so without being two places at the same time and/or without violating existing work-hour statutes. We reiterate that one person cannot be physically present in two places at the same time, namely in the pilothouse and in the engineroom several decks below, or routinely perform two very different job assignments within the constraints of a 12-hour work day.

- 46 U.S. Code §8104(e)(1)(A)(B) states in part: "On a vessel designated by subsection (d) of this section<sup>(1)</sup> a

seaman may not be engaged to work alternately in the deck and engine departments; or required to work in the engine department if engaged for deck department duty or required to work in the deck department if engaged for engine department duty...ö We submit that the Coast Guard does not actively enforce this law ó to the detriment of the health and well-being of our working mariners. [<sup>(1)</sup>i.e., on a merchant vessel of more than 100 gross tons. We assert to Congress that this report will illustrate that the base 100-ton domestic gross register tonnage (GRT) is no longer an adequate manning yardstick and should be amended downward.]

**[NMA Comment: The Coast Guard fails to enforce the existing statute to protect our mariners and failed to seek additional legislative authority to require adequate manning on all commercial vessels of less than 100 GRT.]**

There is a pressing need to develop guidelines to adequately train both licensed and unlicensed engineers in both theory and in practice. However, the Coast Guard never actively encouraged engineer training for most "lower-level" mariners since existing statutes do not require licensed engineroom personnel on offshore supply vessels under 200 gross tons or on most towing vessels in domestic service. We maintain, and maritime unions have urged Congress as early as 1972, to recognize that safety requires the presence of properly trained personnel to staff the engineroom of commercial towing industry vessels. Very few towing vessels used in coastwise and oilfield towing exceed 200 gross register tons although on inland waters and especially the Western Rivers some towing vessels approach 1,500 gross tons.

**[NMA Comment: The Coast Guard and industry appear to have confused the terms "licensed" with "trained" engineers. We recommend that Congress require the maritime industry to provide formal safety and vocational training to all crewmembers who work in vessel machinery spaces, whether licensed or unlicensed as per our report #R-428, Rev. 1.]**

We believe that both the Merchant Marine Personnel Advisory Committee (MERPAC) and the Towing Safety Advisory Committee (TSAC) have a legitimate role in identifying "best industry practices and standards" for training both lower-level licensed and unlicensed engineers. Unfortunately, the Coast Guard neglected this matter since 1972 when Congress declined to license engineers on diesel powered towing vessels.<sup>(1)</sup> [<sup>(1)</sup> Refer to our report #R-401, Rev. 1., Mar. 8, 2005. Crew Endurance and the Towing Vessel Engineer – A Direct Appeal to Congress.]

The Officers Competency Convention of 1936 and Act of 1938 require licensed engineers to serve on vessels over 200 gross tons. This was affirmed by Public Law 96-278 in 1980 for offshore supply vessels. Unfortunately, the Coast Guard failed to recognize or seriously consider the need for trained engineers to operate the engineering plant on other crew-served commercial vessels under 200 GRT. Some of these vessels now approach 200 feet in length.

In addition, since OSVs are not classified as tank vessels, unlicensed personnel with questionable if any formal training in pumping fuel or liquid cargo routinely load, unload, and transfer petroleum, drilling fluids, and noxious liquid substances in United States waters. This logic flies in the face of the comprehensive new safety requirements for Tankerman (PIC) adopted in 1995 and appearing in regulations in 46 CFR Part 13. The continuation of this flawed policy depends on a statutory loophole that declares that OSVs are not tank vessels. Our Association brings this loophole and its potential significance to the attention of Congress to consider its implications for the environment.

<p style="text-align: center;"><b>SUBSTANDARD MANNING LEVELS FOR ENGINEERS ON OSVs GREATER THAN 200 GROSS REGISTER TONS (GRT)</b></p>
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Our Association asserts that the Coast Guard with industry support actually encourages undermanning by approving substandard manning levels on an undetermined but substantial number of OSVs greater than 200 gross register tons.

In letters to Admiral Paul Pluta, then Eighth District Commander and later the Assistant Commandant (G-M) dated Jan. 16 and Feb. 11, 2001, we provided a copy of a valid Certificate of Inspection from a 185-foot OSV greater than 200 GRT showing a manning level of one licensed Chief Engineer with no oiler or other engineroom assistant. Such an engineer was expected to be either on duty or on call 24 hours per day. We provided this as an example of a substandard manning practice on the part of the Coast Guard and an unfair labor practice on the part of management. The Coast Guard constantly reminds our Association that they do not become involved in ölabor issuesö ó which gives employers a free hand to interpret work-hour statutes in any manner it chooses.

Our Association also publishes (below) a copy of the hours worked by a licensed Chief Engineer on a comparable offshore supply vessel. This is a true record of the engineer's "hours of rest" as defined in G-MOC Policy Letter #4-00.

The engineer, among his many other tasks is responsible for pumping a variety of below-deck cargo. The report indicates that he was grievously overworked. Yet, this is far from an isolated event in either the offshore oil or towing sectors of the marine industry. Our Association brought these problems to the attention of both the Coast Guard and the U.S. Department of Labor at the highest levels.

46 U.S. Code §8104(e)(1)(A)(B) states that "a seaman may not be engaged to work alternately in the deck and engine departments; or required to work in the engine department if engaged for deck department duty or required to work in the deck department if engaged for engine department duty..."

We are obliged to protect the interests of our mariners by pointing out that vessels in 24-hour service need an additional watchstander assigned exclusively to the engineroom rather than a hybrid "deckineers,ö often an untrained ordinary seaman, who is shared between the engine and deck department.

An engineroom watchstander needs to be fully trained because, among other things (on an OSV), he must be able to pump fuel and hazardous chemicals since OSV's Certificates of Inspection do not require tankermen. Allowing untrained persons to perform such environmentally sensitive tasks doesn't make sense. We protest that licensed deck officers must risk their licenses to cover pollution errors committed by un-certificated and possibly untrained crewmembers. Protection of the environment suggests that "tankerman" training be required of mariners who must serve as persons in charge of cargo transfer on offshore supply vessels.

Overworking engineers is not a new problem. The Coast Guard clearly recognized this problem in the Functional Job Analysis (FJA) their officers performed on offshore supply vessels in 1982. The Coast Guard presented the FJA report at the Workboat Show in New Orleans and the report was widely circulated. Thereafter, the report was consigned to dusty bookshelves and was largely forgotten.<sup>(1)</sup> In spite of the efforts and expense that went into preparing this report, little effective action ever was taken to implement its findings. This turned out to be a waste of time and taxpayer money and of no help to our lower-level mariners. <sup>[<sup>(1)</sup>We reprinted this Coast Guard report as our Report # R-428-C, Oct. 29, 2006. Maritime Education and Training: Functional Job Analysis (FJA) of Maritime Personnel.]</sup>

**[NMA Comment: Our Association brings this matter directly to the attention of Congress in order to protect our mariners. Coast Guard Headquarters has been aware of the unconscionably long hours worked by OSV engineers since 1982 and have taken no steps to ameliorate these working conditions. The Coast Guard is much too cozy with industry management.]**

**RELATING OUR CHIEF ENGINEER'S WORK EXPERIENCES ON OSVs**

This memo, prepared on Nov. 30, 2000, contains information provided by Glenn L. Pigott, a licensed Chief Engineer on an offshore supply vessel and a member of Association's Board of Directors. Subsequently, the Secretary of Transportation appointed Mr. Pigott to membership on the Merchant Marine Personnel Advisory Committee (MERPAC) where he remains active today.

During this tour of duty, no "oiler," "wiper" or other engineroom personnel was assigned to help Mr. Pigott who fully and publicly explained the situation he faced at the Merchant Marine Personnel Advisory Committee's meeting on April 9-10, 2002.

In this report we use a "From...To" approach to cover the full 24 hours of each day wherever possible based on the our correspondence. We double-checked the facts with Mr. Pigott when we completed the report. These hours are a general outline of the workday the engineer performed on a typical 185-foot offshore supply vessel greater than 200 GRT operating from Port Fourchon, LA, in domestic oilfield service and on voyages of less than 600 miles.

We were concerned about how many hours on each day were available to him for "rest." Coast Guard policy letter G-MOC #4-00 defines "Rest" as "...a period of time during

which the person concerned is off duty, is not performing work...and is allowed to sleep without being interrupted." This does not state that the engineer did sleep, only that he had the opportunity to sleep if he wished or was able to do so.

In this paper Mr. Pigott recorded the number of hours of "rest" he had in each 24-hour period on each day. This figure did not have to match his schedule each day but should not directly conflict with it. We realized this report would be subjective, but these figures were reported as true "to the best of his knowledge and belief." In this, the daily schedule is only a guideline. Mr. Pigott advised us for each day whether it was possible at any time to get 6 hours of uninterrupted sleep as required by the Standards of Training, Certification and Watchkeeping (STCW). Mr. Pigott stated that he would be available to verify this report for any valid official purpose and did so before MERPAC.

**Tuesday, October 31, 2000**

0030 .....Left home to drive to work.  
 0420 .....Arrived at Port Fourchon. Stayed on crewboat awaiting my assigned 185-foot supply boat.  
 0530 .....Went on a utility boat awaiting my assigned boat.  
 1000 .....Went aboard my assigned supply boat. I received no orientation. Liquid mud duties were awaiting my arrival. I was the only engineer on the boat. No other engineroom personnel were assigned.  
 1030 to 1630...Transferring mud returned from the rig to two tanks on the boat.  
 1700 to 1900...Pumping fuel, stirring mud, and transferring water.  
 1900 .....Underway back to dock. Laid down  
**ESTIMATED TOTAL HOURS OF "REST": 2.**

**Wednesday, November 1, 2000**

0230 .....Started pumping off mud to facility at the dock.  
 0500 .....Loading fuel and water at the dock.  
 0800 .....Internal transfer of fuel to level the boat.  
 1000 .....Return to bed.  
 1300 to 2400...Awake and started cleaning three (3) liquid mud tanks.  
**ESTIMATED TOTAL HOURS OF "REST": 4.**

**Thursday, November 2, 2000**

0001 to 0300...Continued cleaning three (3) liquid mud tanks.  
 0300 to 0700...Awake and started to pump water.  
 0700 to 1400...Standby while pumping continued.  
 1400 .....Finished pumping water and Calcium Bromide  
 1400 to 2400...Standby at Rig.  
**ESTIMATED TOTAL HOURS OF "REST": 8.**

**Friday, November 3, 2000**

0001 to 0200...Standby at Rig.  
 0200 .....Hooked up to back-load mud from rig.  
 0330 .....Standby at Rig waiting for mud to be pumped from rig.  
 0630 .....Started receiving mud from rig.

0800.....Pumping calcium and stirring mud every hour to prevent it from settling.  
1200..... Finished pumping calcium.  
1300..... Underway from rig to dock.  
1800..... Standby dock, loading and stirring mud.  
1830..... Laid down.  
2015 ..... Got up to stir the mud.  
2400 ..... Pumping water.

**ESTIMATED TOTAL HOURS OF "REST": 3.**

**Saturday, November 4, 2000**

0001 to 0400 .. Continued pumping water.  
0400 to 1000 .. Laid down.  
1000 to 2400 .. Arose to swap generators; standby and circulate mud hourly.

**ESTIMATED TOTAL HOURS OF "REST": 6.**

**Sunday, November 5, 2000**

0001 to 1000 .. Up. Started loading cement.  
1200 ..... Standby.  
1300 to 1500 .. Working on repairs to starter on Port Main Engine.  
1600 to 2400 .. Standby Rig, stirring mud.

**ESTIMATED TOTAL HOURS OF "REST": 4.**

**Monday, November 6, 2000**

0001 to 0830 .. Stirring mud until arrival at dock.  
0830..... At Dock.  
1200..... At dock. Load Barite.  
1600..... At Dock. Offloaded liquid mud.  
1600 to 2400 .. Standby.

**ESTIMATED TOTAL HOURS OF "REST": 6.**

**Tuesday, November 7, 2000**

0001 to 0800 .. Standby at dock.  
0800 to 1200 .. Up and underway, performing routine maintenance.  
1200 to 1800 .. ?  
2400..... At rig.

**ESTIMATED TOTAL HOURS OF "REST": 8  
(6 HOURS OF SLEEP)**

**Wednesday, November 8, 2000**

0001 ..... At rig.  
0300..... At Dock.  
0800..... Underway.  
0900 to 1200 .. At rig. Handle deck cargo.  
1200 to 1800 .. Prepare to leave rig; leave rig; underway; arrive at dock.  
1800 to 2300 .. Standby at Dock.  
2300 to 2400 .. Standby to load Gel.

**ESTIMATED TOTAL HOURS OF "REST": 5.**

**Thursday, November 9, 2000**

0001 to 0300 .. Standby at Dock to load Gel.  
0300 to 0700 .. Load Gel and Standby.  
0700..... Underway in-port movement.  
0900..... At Dock.  
1200..... Underway.  
1400 to 2400 .. At Rig.

**ESTIMATED TOTAL HOURS OF "REST": 6.**

**Friday, November 10, 2000**

0001 to 1200...At Rig.  
1200 to 1600...Swapped generators; changed filters for port and starboard generators; cleaned engine room; pumped gel and water to the rig; emptied forward liquid mud tanks for drill water.  
1600 to 2400...At Rig.

**ESTIMATED TOTAL HOURS OF "REST": 6.**

**Saturday, November 11, 2000**

0001 to 1600...At Dock. Loaded drill water into #2s & #5s and forward liquid mud tanks.  
1600 .....At rig. Pumping water and cement to the rig.  
2400 .....At Dock.

**ESTIMATED TOTAL HOURS OF "REST": 4.**

**Sunday, November 12, 2000**

0001 to 0800...Standby at Dock.  
0800 ..... At Dock. Loaded Cement.  
1200 .....At Rig. Pumped cement to rig.  
2400 .....At dock.

**ESTIMATED TOTAL HOURS OF "REST": 6.**

**Monday, November 13, 2000**

0001 to 0800...Standby at Dock.  
0800 .....Picked up pallets of ???  
1200 to 2400...Standby at Dock.

**RECEIVED 8 HOURS OF REST, 6 HOURS OF SLEEP.**

**Tuesday, November 14, 2000**

0001 to 0400...Loading Barite at the Dock.  
0600 .....Crew change.  
(Was paid ½ a day going and coming)

**WHY OUR ASSOCIATION CRITICIZED A 1999 NOSAC MANNING REPORT FOR LARGE OSVs**

**Introduction.** On August 19, 1999, our Association responded to a Federal Register invitation to submit comments on proposed regulatory changes to existing Offshore Supply Vessel regulations under docket #USCG-1999-5951.

We also commented upon a report presented by Dr. Laney Chouest, a member of the National Offshore Safety Advisory Committee and Chairman of NOSAC's Subcommittee on the Design, Construction and Operation of OSVs. Dr. Laney Chouest is one of the owners of Edison Chouest Offshore, Inc. a large, privately owned offshore and towing vessel operator. We provided additional verbal comments at a public hearing in New Orleans on Aug. 26, 1999. We quote the report below, with our comments appropriately identified.

**At the November 2007 NOSAC meeting in Galveston, TX, we learned of the same company's plan to construct new offshore supply vessels of more than 6,000 tons (ITC) and to operate them under the two-watch system.** Consequently, we updated this report and now bring this information to the attention of Congress.

[NMA Comment: We urge Congress to rethink the entire manning issue of towing vessels and OSVs in light of this report.]

#### øManning Levels

(In 1999) øThe (NOSAC) Subcommittee considered whether "larger" Offshore Supply Vessels would require additional personnel to operate safely. Given technological advances in vessel automation and imminent requirements for crew training, in accordance with SOLAS (ISM Code) and STCW, it is likely that more sophisticated vessels manned by better trained crews will enable larger vessels to be operated by a crew complement comparable to that of existing vessels.ø<sup>(1)</sup>

[<sup>(1)</sup>NMA Comment: We disagree. It is common practice as well as Coast Guard regulatory policy detailed in Marine Safety Manual, Volume 3, paragraph 18.C.1-19, that larger size merchant vessels are assigned larger crews to adequately man and maintain them. The NOSAC report simply ignored this practice.]

[NMA Comment: Adequate crew size is especially important on "large" OSVs serving an industry that operates under the "two-watch" system on a 24-hour per day basis in domestic waters. The "two-watch system" with only two licensed deck officers and one licensed engineer is a euphemism that conceals a very demanding workweek that is at least 84 hours long.]

[NMA Comment: For many mariners serving on OSVs and towing vessels, actual work hours often extend far beyond the statutory maximum of 12 hours per day on larger vessels with more and heavier deck equipment. On inland towing vessels, Congress provides no statutory work hour limits for unlicensed mariners]

[NMA Comment: Lines, cables, chain, and hoses as well as larger steel surface areas subject to rusting, chipping and painting require substantially more, not less, maintenance and physical labor on the part of crewmembers on large OSVs. In "blue-water" merchant marine service, comparably sized vessels generally operate under a "three-watch system".]

[NMA Comment: The offshore oil industry and the towing exploited and abused employee work hours for many years. We documented these abuses in a series of reports numbered R-370 listed at the end of this report and informed Coast Guard Headquarters, the Eighth Coast Guard District, the U.S. Department of Labor, and the National Transportation Safety Board of these problems.]

#### Fatigue

øWith respect to concerns regarding fatigue, the (NOSAC) Subcommittee believes the following considerations should serve to mitigate the effects of fatigue: øImprovements in the technology used in the wheelhouse, engine room<sup>(1)</sup> and cargo control station<sup>(2)</sup> will reduce the physical demands on crewmembers.

[<sup>(1)</sup>NMA Comment: We disagree. In the engineroom, there will be a greater variety of fluids to store, change, pump, and eventually to dispose of. Based on past History of manning levels in this industry, we cannot be assured that adequate engineroom personnel will be provided to these vessels.]

[NMA Comment: The Coast Guard's Functional Job Analysis (1982), reprinted in our Report #R-428-C, showed that the OSV engineer was clearly overworked. Remarkably, the Coast Guard took no remedial action on this report on this matter such as requiring increased industry-wide engineroom manning requirements. Without regulatory pressure, industry exerted little sustained leadership to improve the situation for the past quarter century.]

[<sup>(2)</sup>NMA Comment: There is more to handling either liquid mud or barite than pushing buttons or levers at a control station. Hoses must be un-racked, unrolled, dragged, or carried; connections must be made in all types of weather and at any hour of day or night. Hoses must be tended or monitored and corrections or minor repairs made as required. Hoses must be plugged or capped, disconnected, emptied, re-rolled, tied and racked. Clogs must be freed; spills must be cleaned. Mud, cement, and chemicals vented or spilled from the rigs must be cleaned up. Increased transfer capacities mean heavier, longer and more unwieldy hoses and heavier physical activity involving the need for greater manpower. All of this must be done in line with more rigorous work hour standards as specified in long-standing but frequently overlooked U.S. regulations, new STCW requirements and International Labour Organization (ILO) standards for all merchant mariners.]

[NMA Comment: The NTSB in recommendation #I-99-1, asked the Department of Transportation to "...require the modal administrations (including USCG) to modify the appropriate Codes of Federal Regulations to establish scientifically based hours-of-service regulations that set limits on hours of service, provide predictable work and rest schedules, and consider circadian rhythms and human sleep requirements." Since the Coast Guard never followed these recommendations, we ask Congress to direct the Coast Guard to establish such regulations.]

#### Larger Capacity OSVs

øEven though "larger" OSVs will have greater cargo and drilling fluid capacities,<sup>(1)</sup> the cargo systems will be more sophisticated<sup>(2)</sup> and have significantly increased transfer capabilities, which should serve to minimize the physical demands on crew members.<sup>(3)</sup>

[<sup>(1)</sup>NMA Comment: Greater cargo capacity requires more time or more powerful pumps to pump the cargo tanks. A greater variety of cargo, requires more crewmembers to attend to pumping or unloading different cargo items. Trying to pump and monitor two or more items at once leads to spills.]

[<sup>(2)</sup>NMA Comment: To date, owners of OSVs have

spent a minimal amount of time and effort in formal engineer training and prefer to concentrate on on-the-job training (OJT) and installing redundant systems. Without formal training, the vessel and the mission it is employed on are at heightened risk if on-board engineers are not trained to troubleshoot and repair the increasingly sophisticated equipment on board the vessel at sea when its use becomes critical to the vessel's mission. Such equipment may be electronic, hydraulic, or pneumatic or a combination thereof.]

[<sup>(3)</sup>NMA Comment: Already, the demands made on crews working under a two-watch system are so high that most are forced to work outside the legal work-hour limits established by law and regulation. Not only will the physical demands upon mariners increase with OSVs' increased transfer capabilities but also demands to encroach upon their limited off-duty time will also increase. These demands, already unrealistically high under the existing two-watch system, will increase rather than diminish.]

#### Hull & Tank Coatings

δNew coating systems for the hull and cargo tanks<sup>(1)</sup> will reduce the need for maintenance, thereby reducing the physical demands placed upon crew members.<sup>(2)</sup>

[<sup>(1)</sup>NMA Comment: We continue to be concerned about reports of inadequate respiratory protection provided to persons working inside cargo tanks whether crewmembers or contractor employees.]

[<sup>(4)</sup>NMA Comment: The failure to establish realistic work hours and rest periods during port visits coupled with frequent vessel moves within the port accompanied by protracted waiting to load/unload cargo often result in excessive work hours.]

[NMA Comment: 46 U.S. Code §8104(f) allows the Master to call out the crew for "maneuvering, shifting the berth of, mooring, or unmooring the vessel." Amending this statute by requiring suitable manning for these evolutions available on each watch could avoid sleep interruptions and health concerns these call-outs cause.]

[NMA Comment: A fatigued watch tasked with the job of taking the vessel back out to sea violates 46 CFR 15.1111(g) that requires the Master to post a watch schedule for vessels subject to STCW. A poll of mariners working in this sector of the industry showed that 63.7% were not aware of any duty rosters posted on their vessels indicating that none were posted.]

#### Larger OSVs in Deepwater Service

δLarge new OSVs (up to 3,000 gross tons) primarily will be dedicated to deep water operations and, therefore, make longer trips to drilling facilities further offshore. The additional transit time will likely afford crewmembers longer uninterrupted rest periods.<sup>(1)</sup>

[<sup>(1)</sup>NMA Comment: <sup>1</sup>Perhaps...but, on the other hand, it is

also possible that heavy weather may interfere with "uninterrupted" rest periods provided to an exhausted crew. We suggest that formal instruction on Crew Endurance Management Systems be provided every working mariner. Unfortunately, working mariners are rarely instructed in the nature of fatigue and, when they are, it is with the goal of making them endure intolerable and unregulated conditions that have existed in the industry for years.]

#### Availability of Close Support.

δThe (NOSAC) Subcommittee also noted that OSVs generally operates in proximity to a shore base, often located within 150 miles<sup>(1)</sup> or less from the offshore facility served by the vessel. This support infrastructure provides quick access to personnel, equipment, services and supplies required for the operation of a vessel. The Subcommittee recommends the Coast Guard consider the unique support infrastructure available to OSVs and maintain the current manning levels on OSVs, until such time as a demonstrated need for additional personnel exists.δ<sup>(2)</sup>

[<sup>(1)</sup>NMA Comment: It is not the proximity to the shore base that our mariners are concerned about. In fact, the small crews are often overworked and their mandated rest periods are interrupted by being constantly called out to move OSVs from dock to dock within a port to load or deliver different cargoes, and to constantly change positions alongside the dock at crowded shore bases. While existing 46 U.S. Code §8104(f)(1)(2) does not limit the authority of the Master to call out officers and seaman to maneuver shift berths, moor and unmoor the vessel or perform work necessary for the safety of the vessel, the need for doing this repeatedly and at frequent intervals comes at a significant cost to a mariner's health and welfare whenever the vessel is not sufficiently manned.]

[NMA Comment: The Coast Guard, along with the vessel owner, decides upon the vessel manning scale that is placed on the Vessel's Certificate of Inspection – notably without any mariner input whatsoever. Frequent turnarounds and constant cargo handling increase the crew's exposure to spills and cargo accidents, especially when they are fatigued.]

[<sup>(2)</sup>NMA Comment: We believe that a demonstrated need for additional personnel exists on new, large OSVs between 3,000 and 6,000 Gross Tons (ITC). This is certainly true on proposed OSVs in excess of 6,000 tons ITC.]

[NMA Comment: We ask that Congress commission a study by an agency outside the Coast Guard to review the current manning levels and hours of work on all OSVs using existing rough vessel deck and engineroom logbooks and by taking truly random and anonymous interviews of selected personnel at home.]

#### What Happens in Actual Practice?

We assert that this 1999 NOSAC Subcommittee report represented the opinion of the writer and did not take into consideration the mariners who must work on the large

new offshore supply vessels up to 3,000 Gross Tons. However, it appears that Dr. Chouest exercised sufficient leverage with the Coast Guard to turn his manning theory into reality on his own vessels. We learned about this four years after the fact!

**Example:** On March 15, 1998 the M/V C-CAPTAIN, a 220-foot x 56-foot offshore supply vessel of 1,699 gross tons (2,462 tons ITC) owned by a Chouest company collided with the M/V BASS RIVER, an older 175-foot x 45-foot OSV operated by Trico and crewed by Otto Candies. The collision sank the BASS RIVER within sight of Port Fourchon with the loss of three lives.

While awaiting the final accident report by the National Transportation Safety Board, we discovered that the C-CAPTAIN's Certificate of Inspection allowed this huge vessel to be operated in the domestic offshore oil industry with a crew of only 5 persons namely 1 Master; 1 licensed Mate; 1 Chief Engineer; 1 Able Seaman and 1 Ordinary Seaman. Although this fact did not contribute to this particular accident, it served to give our mariners a clear warning that the Coast Guard has been far more concerned with pleasing large boat owners than it is in the safety and well-being of our lower-level mariners.

**[NMA Comment: The Coast Guard deserves censure for allowing large oilfield vessels operating in 24-hour service to be crewed with such a small a number of mariners. There are not even two full crews on the vessel to man the engine room, pilothouse, and the deck without calling out the entire crew for even the most inconsequential maneuvers such as safely tying up to the dock or an offshore facility in calm weather.]**

<p style="text-align: center;"><b>FUTURE PLANS FOR MANNING SUPER SUPPLY BOATS &gt;6,000 GROSS TONS</b></p>
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Our discussion of oilfield vessels in the previous section dealt with vessels of up to 6,000 Gross Tons (ITC) based on the new (1996) definition of an OSV as a vessel of less than 6,000 Gross Tons.

In the November 2007 NOSAC meeting in Galveston, we learned that industry had one or more vessels under construction for oilfield service whose gross tonnage would be in excess of the 6,000 GT statutory limit. The draft task statement stated in part: "The rapid changes in the oil exploration and exploitation industries have created a demand for larger vessels, especially those that operate in deep water. We are also seeing OSVs deployed in much more hostile environments, including Alaska's Beaufort and Chuckchi Seas. The current OSV requirements in statute and regulations were developed to address smaller vessels that generally operate in less extreme environments. The current regulations under 46 CFR Subchapter L for U.S.-flagged OSVs are deficient for regulation of large OSVs greater than 6,000 Gross Tons (ITC).

A presentation comparable to the one that Edison Chouest Offshore made before NOSAC should convince Congress to favorably consider increasing the tonnage limit above 6,000 tons as well as for the Coast Guard to amend certain aspects of the existing inspection

regulations. However, our Association was very concerned about the manning issue when we heard that industry planned to use a standard "two-watch" system to man these huge new ships.

In April 2008 we reviewed the work of NOSAC's Subcommittee on Certification and Standards for Large OSVs and communicated our thoughts to them.

#### **Our Association Comments on Manning Issues For Super Supply Boats**

I am pleased to see that three licensed persons are proposed to be assigned to the pilothouse. I am also pleased to see that the Coast Guard finally has expressed some concerns over the workload of ship's officers although this is long overdue. The "third licensed officer" available in the pilothouse is definitely a step forward. I commend the subcommittee for this proposal.

**[NMA Comment: We believe that a third licensed officer was also required on much smaller OSVs years ago – but this request was ignored.]**

The proposal still leaves me concerned because it recommends having only two Able Seamen in the "Initial Manning" column. No matter how much "labor saving" equipment there is on deck, there are times when it takes two men to handle the deck duties. For example, it takes more than one seaman to tie up this behemoth without calling on the engine room crew or a licensed officer from the pilothouse. It appears that you will have to wake the second AB, who has already put in his 12 hours if you don't have a third man on call.

"On-call" brings up the abuses of the call-watch system on towing vessels<sup>(1)</sup> [<sup>(1)</sup>Refer to our Report # R-370-G. (Series) Nov. 21, 2006. Crew Endurance: The Call Watch Cover-up.]

The question of whether the voyage is more or less than 600 miles in length really should not be of concern, either. Short runs, frequent loading and off-loading, switching between seagoing and dockside evolutions, etc. is often leads to more fatigue and interruptions than longer voyages. Consequently, I believe you should add one Able Seaman.

I also find it interesting after all these years to see a QMED/Tankerman. In the past, tankermen were not required because OSVs were not considered to be tank vessels. Of course, this was a very convenient myth that was aggressively supported by Coast Guard Headquarters-types who never worked on a supply boat a day in their lives. In fact, we believe that tankerman training should be required whenever and wherever pumping fuel or noxious liquid substances takes place. However, our Association always found the Coast Guard unresponsive to this argument, and in fact, downright belligerent. I am pleased to see the industry step forward on this issue.

"The level of manning on a vessel is highly subjective and generally left to the discretion of the OCMI that certifies the vessel." Unfortunately, this (quoted) statement is true. It is also most likely the same OCMI who has never completed a single voyage on an OSV in his life (who signs the vessel's Certificate of Inspection). In the absence of negotiated union contracts, our Association will continue to fight this battle on behalf of any crew on any vessel that

comes to us or simply quit when they are worked beyond endurance.

In regards to the two-watch vs. three-watch systems, I will only say that a two-watch system requires a minimum 84-hour work week ó over twice the length of a shoreside work week. While a 12-hour watch does allow the 7 to 8 hours of uninterrupted sleep the human body requires, there is also the danger of lapses of attention and other problems during such an extended period. I can only speculate on recruitment issues this might bring up with merchant marine officers that are familiar with a 4-on, 8-off routine that also provides 7 to 8 hours of uninterrupted sleep. I would certainly encourage CEMS training and building in the physical features on the vessel that would allow it to be implemented.

I note in passing the non-utilization of ordinary seamen in vessel manning on these vessels. One (general) problem the U.S. merchant marine faces today is that there are very few ordinary seaman positions available to train future Able Seamen on large ships. Not using ordinary seamen on these vessels contributes to this general problem, but this may be of no consequence if you continue to use ordinary seamen on vessels of less than 6,000 tons.

I believe that this proposal definitely is a step in the right direction. We support the remainder of the proposal as presented at the NOSAC meeting in Galveston. Nevertheless, our Association continues to have longstanding manning issues on some vessels in the remaining 100% of the active OSV and towing fleet which we will continue to address.

s/Richard A. Block, Secøry, NMA

**[NMA Comment: While these “super supply boats” are still under construction and the proposed manning does represent a sensible step forward, we ask Congress review the manning issues for the rest of the active OSVs and towing vessels in service today.]**

**[NMA Comment: Maritime labor unions that man must U.S.-flag vessels of more than 6,000 gross tons should contribute their expertise on this matter. Traditional manning on American-flag vessels greater than 6,000 gross tons usually specifies a “three-watch system” for the health and safety of mariners.]**

**MANNING PRACTICES ON  
SMALLER OFFSHORE SUPPLY VESSELS  
BETWEEN 100 & 200 GRT**

On February 11, 2001 our Association supplemented its earlier letter of January 16, 2001 to Rear Admiral Pluta in regard to manning on offshore supply vessels.

In this letter, we enclosed copies of four Certificates of Inspection (COI) for OSVs that operate in the Gulf of Mexico. These were typically older but smaller supply boats as compared to the much larger vessel M/V C-CAPTAIN described above. Our concern, as emphasized to us by a mariner who was an employee of the owner of these vessels, was to point out the inadequate manning of these vessels on voyages of less than 600 miles which is how these vessels are primarily employed. In fact, we did not consider crewing for

vessels engaged on voyages greater than 600 miles in this report. **Our conclusion was that the Certificates of Inspection (COI) provided by the Coast Guard made no provision whatsoever for manning the engineroom** of these vessels. This does not square with the reality of the situation and displays an abysmal ignorance of this reality or a total lack of concern for safety.

**[NMA Comment: Many Coast Guard Certificates of Inspection are not “safe manning” certificates in that appealing the corporate greed of boat owners takes precedence over adequately protecting the health and safety of lower-level mariners.]**

On their voyages, the Coast Guard permits these offshore supply vessels in 24-hour service to be manned by only four (4) crewmembers. However, none of the crewmembers including the licensed officers is required to have any training as a vessel engineer. Moreover, the care, operation, and maintenance of the engines of these vessels, ranging from 1,800 to 2,250 horsepower simply appears to be left unassigned. The effect is to leave the master of the vessel short of crewmembers. When assigning watches, the shortage of trained engineers means that engineroom duties including pumping fuel and handling noxious cargo are assigned to persons who may have little or no demonstrated capabilities, training, or mechanical aptitude. Or, a licensed deck officer may have to perform these duties in addition to his other duties and in violation of work-hour regulations. Consequently, a deck officer may have to perform duties in the engineroom or supervise pumping diesel fuel or other noxious liquid or bulk solid substances on deck ó loading the vessel, unloading the vessel, or transferring the cargo at an offshore location.

The engineroom is a dangerous place for people who don't know what they are doing or what they are supposed to do. Our Association pointed this out in our Report # R-428, Revision 1. Oct. 23, 2006. Report to Congress: The Forgotten Mariners. Maritime Education & Training for Entry-Level Deck & Engine Personnel. When MERPAC failed to give this report the attention it deserved (as Task Statement #55) we published the report and forwarded it to the Chairman of the National Transportation Safety Board for further consideration.

Since these vessels are each **more than 100 gross tons**, according to 46 U.S. Code §8104(e)(1)(A)(B) "...a seaman may not be engaged to work alternately in the deck or engine department; or required to work in the engine department if engaged for deck department duty or required to work in the deck department if engaged for engine department duty." However, the Certificates of Inspection our Association reviewed, appear to overlook this fact.

While underway, the master's or mate's position must be in the pilothouse. This leaves an able seaman or an ordinary seaman to handle all deck or engineroom duties alone ó unless he wakes an off-duty crewmember.

Not only do diesel engines operate the vessel's propulsion, they also power both its generating and pumping equipment. Although a licensed engineer is not required on a vessel of less than 200 gross tons, we note that no certificated engineroom personnel with even minimal "oiler" qualifications was provided for in the

vessel manning requirements.

On two of the vessels, we noted that only a "licensed deck officer" would be available to serve as the designated person-in-charge when transferring fuel oil or petroleum based liquid mud as the vessel was not required to carry a certificated tankerman or a licensed engineer (because the vessel at 196 gross tons was slightly less than 200 gross tons). We believe it is only fair to ask how the single licensed officer on duty on a "two-watch" vessel is supposed to properly supervise fuel or oil-based liquid mud transfer when his duty station is in the pilothouse and the transfer takes place on deck? It is one thing to be on the scene and properly supervise the transfer; it is another thing to be "designated as a Person in Charge" and accept blame if a spill occurs. We can understand why our licensed deck officer was very reluctant to do so and risk losing his license and reported the situation. On the two other OSVs, we noted that the COI permitted transferring cargo to or from portable tanks that required additional fire protection equipment provided for this purpose. However, in spite of the many different products the vessel was allowed to pump, there was only one person available on duty on deck to use the transfer equipment and/or its fire protection equipment! We believe that Congress should be concerned that the U.S. Coast Guard permits such woeful undermanning of offshore supply vessels.

#### **Engine Alarms and Work-Hours**

On the third OSV, we noted the same absence of any engineroom personnel. We also noted that "...the specified manning level is contingent upon the proper operation of the engineering automated control/monitoring systems..." This requirement is the crux of another serious manning problem prevalent on OSVs as well as on uninspected towing vessels. This statement indicates that some person, other than the licensed officer on watch, **must be available to respond to engine alarms 24 hours per day.** This person, however, more than likely has little more than a passing knowledge of the engineroom and its equipment. In fact, the only persons with experience are the licensed officers. Since one licensed officer is on duty in the pilothouse, the second licensed officer may have to be called out to solve any problems in the engineroom after his watch is over. This may interrupt his rest or violate the 12-hour work-hour statute and should not be permitted since the problem stems from insufficient manning that may (or may not) lead to a genuine emergency.

There is also an implicit assumption that one deckhand is capable of tying up a large offshore supply vessel alone ó not only to a dock but also to an offshore platform or buoy in any weather conditions. This can be unsafe if, for example, the deckhand must carry the line ashore and slips and falls in the water or if he gets in trouble on deck at sea with nobody else available on deck to assist him.

While all of these evolutions may be possible on an undermanned vessel, they are neither safe nor practical. The crew listed on the Certificates of Inspection for these vessels can be expected to routinely violate work-hour statutes and regulations or be called out any hour of the day or night on an "emergency" basis. However, these are not true emergencies. Rather, they are manmade examples of poor planning and undermanning.

**[NMA Comment: Our complaint lies not so much with the boat owners who are free to follow the dictates of their Certificates of Inspection, but rather with the Coast Guard that displays so little knowledge of how these vessels really operate in domestic 24-hour service that they freely and without question issue such certificates. Coast Guard officers rarely, if ever, ride the vessels and learn base their knowledge on second-hand information – mostly provided by management or trade association sources.]**

Most troubling of all, it is unfair to the "lower-level" mariners who work these vessels as well as being unsafe! The fact that two of these four offshore supply vessels operated under the "Streamlined Inspection Program" further illustrates how the Coast Guard simply rubber-stamps these practices year after year without questioní . öto level the playing field.ö Well, our mariners are the players on that playing field and also deserve consideration.

As an association whose legitimate purpose is to represent the safety interests and concerns of our mariners, we asked our District Commander (then Rear Admiral Pluta) to investigate this situation. We believe that the manning of inspected offshore supply vessels should be thoroughly and completely reevaluated both at the Eighth District Headquarters and at Headquarters in Washington with an eye to requiring proper and safe manning of all such offshore supply vessels in domestic service.

It is only fair to point out that one of the four OSVs cited in our letter of February 11, 2001 sank in the Gulf of Mexico with the loss of two lives. At the time of the sinking, the vessel's owner did provide one öextraö crewmember above and beyond that required on the vessel's COI. That person, who was only an ordinary seaman, apparently was assigned to serve as an unlicensed engineer. The cause of the sinking, according to transcripts of the hearing, was the failure of the engineer to close engine room doors in bad weather and the failure of the alarm system to alert the persons on watch in the pilothouse that the engine-room doors were open. [Refer to our report #R-311. Rev.2. May 26, 2003. The Loss of the OSV CHERAMIE BOTRUC 26 With Two Fatalities]

**[NMA Comment: Accident reports of major accidents involving vessels served by lower-level mariners need to be produced in a timely manner so that "lessons learned" are available to protect other mariners.]**

<p style="text-align: center;"><b>MANNING TUGBOATS AND OSVs: COLLISION BETWEEN THE TUG LA MADONNA AND NEW OSV GREG DANOS</b></p>
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*[Source: Misle Activity #1638436, Misle Case #87811, CGMA File #M-281. MSO Port Arthur, TX.]*

On June 27, 2002 at about 4:00 PM in broad daylight in calm water with good visibility, the bow of the tug LA MADONNA running inbound to Port Arthur, TX light boat and traveling at 11 knots slammed into the 145-foot mini supply boat GREG DANOS amidships. The GREG DANOS bound offshore to High Island Block 305 also with a crew of four on board.

Because of this collision, a mini-supply boat, less than

one year old at the time of the accident, sank in 36 feet of water eight miles offshore from Cameron, LA. There were no fatalities on the OSV, but the extent of the damage was reported in excess of \$750,000. Although the accident resulted in the spill of 800 gallons of oil from the port day tank, there was a potential to spill up to 24,000 gallons. However, the fuel tanks on the GREG DANOS were fitted with check valves that controlled the release from the main tanks that were not breached.

**[NMA Comment: The M/V GREG DANOS, an OSV comparable in size (but not tonnage) to the M/V LYTAL ANDRE (below), was rammed amidships and sank – fortunately with no loss of life. The Coast Guard investigation failed to formally assess blame for the accident or to formally assess who was serving as “lookout” as required by International and Inland Rule 5 –“Every vessel shall at all times maintain a proper lookout by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and the risk of collision.]**

**[NMA Comment: On an undermanned vessel, the easiest duty for the reduced manning to bypass is that of the lookout.]**

Although the Coast Guard took no enforcement action in this case, the one revealing comment in the report's Causal Analysis section states: “Active human failures of Execution Errors of Attention Failures of Inattention errors of the Pilot of the M/V LA MADONNA. His attention should have been on the job.”

The Master of the M/V GREG DANOS indicated that he “saw him at one mile (and) thought he would pass astern” and “Didn't notice vessel until the collision.” We were told by an informant that one of the vessels had nobody in the pilothouse at the time of the collision and that one of the vessels was short one licensed officer. We could not verify this report. The Coast Guard accident report does not mention conducting any license check or even visiting the accident scene or personally discussing the accident with crewmembers. One document, the Situation Report or SITREP, included in the package may explain that by this excerpt: “Media interest: No local interest.” Our Association asserts that a \$750,000 accident, if properly and thoroughly investigated, should arouse some interest and concern in the industry and contains important lessons for mariners as well as management!

Both vessels were in 24-hour service with minimal crews. Crew statements indicated that the tug's master, who was in the head at the time of the accident, reported that he had eight hours of sleep but “not good sleep” it was rough.”

<p style="text-align: center;"><b>UNDERMANNING ON OSVs OF LESS THAN 100 GROSS TONS</b></p>
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**Mini-Supply Boats**

In the June 2001 edition of Workboat, Captain Max Hardberger prepared an excellent article titled Think Big:

Bollinger Builds Small Boat with Big Boat Features. The article and photos of the 145-foot M/V LYTAL ANDRE were flawless. This oversized oilfield utility boat contained many features found only on larger supply boats but were crammed into a hull that admeasured less than 100 gross tons. However, it is clear that domestic tonnage laws were not written or interpreted with an eye to the safety of our working mariners.

Following specific complaints from one of our mariners, our Association sent a Freedom of Information Act request to the Coast Guard to examine the M/V LYTAL ANDRE's Certificate of Inspection (COI) as a public document. Since the boat is only 90 gross tons, the Coast Guard allows the vessel to be manned for 24-hour service in the Gulf of Mexico with a crew of one 100-ton Near Coastal Master, one 100-ton near-coastal Mate and two green deckhands who need not be experienced (i.e., neither must they have Merchant Mariner Documents nor be rated as either an ordinary seaman or an able seaman (OSV).

“Since the vessel is under 200 gross tons, it does not need to carry a licensed engineer. In fact, the Coast Guard's COI doesn't call for any “engineer” at all even though the vessel is crammed with pumps, engines, generators and other machinery. Consequently, all engineering duties must be shared by all crewmembers in addition to other duties they may also have to perform on deck. This can place a great strain on the two licensed officers who are limited by statute and regulation to working no more than 12 hours per 24-hour day. Engineering duties include:

- maintaining two 750-hp main engines including regular oil changes.
- servicing one 360-hp bow thruster engine including oil changes.
- maintaining the generators' diesel engines and regularly switching the vessel's two 75kw generators.
- maintaining two air compressors (not listed), their air receivers and pneumatic system.
- pumping and circulating up to 50,204 gallons of liquid mud en route.
- pumping up to 19,742 gallons of methanol with its separate cargo pumping system.
- transfer up to 32,277 gallons of fuel to a rig, platform or other vessel.
- maintain and operate a 6"x 4" fire pump and 1,200 gallon per hour fire monitor and be prepared to use them in regular drills as well as in true emergencies.
- answer the engine alarms as part of an “unmanned” engine room any hour of the day or night.
- start the fire pump and line it up for every fire drill.

The challenges of moving the vessel from one dock to another to pick up cargo items at any hour of the day or night, tying up to the rig in any weather, anchoring and weighing anchor, can be solved on a vessel so scantily crewed by declaring every movement of the vessel an “emergency” and calling all crew members to their stations to handle lines, transfer cargo, pump liquids, or handle deck cargo.

The COI calls for 2 life floats/buoyant apparatus as lifesaving equipment for 24 persons. Wives of mariners' working on this or similar vessels need to understand that existing Coast Guard regulations allow many offshore supply vessels to carry such antiquated “lifesaving” equipment. Using a life

float means that each crewmember or other person on the vessel must enter and remain in the water and hang on to a 3/8 inch polypropylene line for however many hours it may take to be rescued. This can be a tough order in the Winter and Spring when the water temperature in the Gulf hovers at 60°F.

Jim Hall, former Chairman of the National Transportation Safety Board (NTSB) understands the fallacy of using this type of lifesaving equipment. He repeatedly urged the Coast Guard to provide out-of-water protection in the form of inflatable life rafts. Unfortunately, all the NTSB can do is "recommend"; they have no power to enforce their recommendation. Our Association ran into a stone wall in dealing with Coast Guard Admiral Robert C. North on this matter several years ago. However, we will not back off until every vessel sailing in the Gulf of Mexico is provided with adequate "survival craft."

**[NMA Comment: Our Association supports the position of the NTSB in its recommendation to replace all primary "in-water" lifesaving equipment with equipment that will keep our mariners out of the water. Refer to our Report # R-354, Rev. 3. Jan. 8, 2008., A Direct Appeal to Congress on Lifesaving Issues Affecting Lower-Level Mariners and Report #R-354-A., Jan. 8, 2008. Basic Survival: The Regulatory Struggle for "Out-of-Water" Lifesaving Equipment that contains detailed correspondence with the NTSB.]**

"Considering the fact that the Department of Transportation values a human life at \$2,700,000 for statistical purposes, perhaps some boat owners and their insurers will consider it a wise course of action to pay the cost of a pair of inflatable liferafts before a human tragedy occurs and puts them out of business. This is especially true on uninspected towing vessels where equipping the vessel with *any* survival craft is not currently required by any Coast Guard regulation.

"Although the M/V LYTAL ANDRE carries grade "C" methanol, grade "D" and lower liquid mud, and diesel fuel, the COI does not require either a licensed engineer or tankerman to pump it. Consequently, if there is a spill of any of these liquids, the Coast Guard will seek to punish one of the licensed officers. The penalties can be severe!

It is possible that one of these officers might happen to be on deck wrestling hoses or in the engineroom trying to line-up a pumping system when a spill takes place. The vessel is also authorized to carry "marine portable and "DOT" tanks types IM101 and IM102 (that may be discharged or filled while on board the vessel provided they meet the cargo handling requirements of 46 CFR §98.30 and 46 CFR Part 64. DOT tanks types 57 may be filled or discharged while on board the vessel provided they meet the cargo handling requirements of 46 CFR §98.33." This makes life even more interesting.

However, on a two-watch vessel such as the M/V LYTAL ANDRE, one of the licensed officers would be expected to be off-duty while the other licensed officer's duty station is in the pilothouse. In any event, the COI says: "When transferring fuel oil, petroleum based liquid mud, or other combustible liquids, a certificated tankerman, licensed engineer, or licensed deck officer shall serve as the designated person in charge." Since there is

no licensed engineer or tankerman, guess who gets stuck in the game of "pin the tail on the donkey"? Hopefully the licensed officer is flexible enough to be two places at the same time ó in the pilothouse where he is supposed to be and on deck where the transfer is taking place!

"Loading this complex vessel correctly requires an adequate knowledge of stability. In fact, it requires a greater knowledge than is presently examined by the Coast Guard at the 100-ton license level ó based on knowledge requirements of the Coast Guard's stability exam questions for 100-ton Masters.

While this new vessel certainly is something for its owner, its naval architects, and the shipyard to crow about, we view it as just another dangerously undermanned vessel that the Coast Guard allows to sail into the Gulf ó along with at least a dozen other boats similar in design that were purposely squeezed under the 100-ton mark by naval architects to fit a comfortable niche in the market. We sincerely hope that this boat and its sister ships that are dreams for their owners will not become nightmares for their crews."

<p style="text-align: center;"><b>TONNAGE REGULATION LOOPHOLE ALLOWS FOUR MAN CREW TO OPERATE A 185-FOOT OFFSHORE SUPPLY VESSEL</b></p>
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A tip by a licensed officer convinced our Association to request copies of the Certificates of Inspection (COI) from two 184-foot offshore supply vessels of only 76 gross register tons.

The tip simply said that two ösister ships,ö the M/V GLORIA B. CALLAIS and M/V CLAIRE M. CALLAIS, were allowed to operate with a crew of one master, one licensed mate, and two deckhands in 24-hour service. Both boats have a ödomesticö regulatory tonnage of only 76 gross register tons (GRT) yet with an international tonnage of 1101. Both vessels are in domestic service.

**No Engineers and No Tankermen**

We noted that neither vessel is required to carry a licensed engineer or a tankerman although the Coast Guard authorizes both vessels to carry 4,200 barrels of Grade öCö methanol and hundreds of tons of Grade öEö oil-base liquid mud and non-combustible noxious liquid drilling fluids. The requirement for a licensed engineer only appears on vessels over 200 GRT in domestic service. There is no requirement for a tankerman since the vessel is not classed as a ötank ship.ö However, it might reassure the Master of the vessel if his ödeckhandsö had formal engineroom or tankerman training!

When these two offshore supply vessels are away from a shoreside dock for not more than twelve hours in any 24 hour period, the crew may be reduced to one master and two deckhands ó barely enough to tie this large a boat to the dock. However, the vessel also may carry 20 öoffshore workersö in addition to the crew ó meaning more mess to clean up in a crowded environment that can quickly become one of an offshore flop house.

The GLORIA's COI was issued in Mobile, AL in October 2003 while the CLAIRE's certificate was issued in Morgan City, LA in June 2003. There is one minor but noteworthy difference between the two COI's. The COI

issued in Morgan City was amended with this remark:  
øAdded 1 deckhand at request of owner; added 1 PFD to required equipment.ø

### Running Dangerously Short-Handed

Any mariner who ever worked on an OSV knows that running a 184-foot supply boat in 24-hour service with only four crewmembers is operating the vessel dangerously short-handed. Yet, the Coast Guardø OCMIs in Mobile didnø seem to understand that. However, alarm bells should have gone off throughout the industry when the boat owner ø perhaps at the urging of the OCMIs in Morgan City ø picked up on the issue and voluntarily added one deckhand on one of the boats. This may prove to be little consolation to the crew on the other boat someday when the owner slips his extra man out of a boat rental contract and pockets the extra money he saves by manning it with only four crewmembers.

### Who Decides on Crew Size

However, there is a larger question that involves the matter of who determines the crew size on any vessel and how they arrive at the number of crewmembers. The øwhoø should involve three parties namely the owner, the Coast Guard, and the mariners (e.g., labor) who man the vessel.

Our Association determined that mariners are always excluded from consideration in the manning process ø leaving them subject instead to the ignorance of most Coast Guard officers who never worked on a commercial vessel and to greedy vessel owners who put profit ahead of safety.

**[NMA Comment: Our mariners alone bear the burden of the work that must be performed on OSVs and towing vessels. We urge Congress to direct the Coast Guard to include our mariners in the process of determining adequate and safe manning levels that appear in Coast Guard manning documents such as the Marine Safety Manual and Navigation and Vessel Inspection Circulars (NVIC).]**

**[NMA Comment: We urge Congress to provide for the Master of a vessel to petition the Coast Guard to amend any vessel's manning level (as reflected on its Certificate of Inspection) if doing so would prevent unsafe conditions from arising or continuing on a given vessel assignment.]**

The Master of a vessel should be able to question the expertise or judgment of the Coast Guard officer who signs each vesselø Certificates of Inspection in light of specific vessel assignments if there is a question about that officerø first-hand knowledge and first hand experience about that assignment. Most OCMIs rarely even see or go aboard the boat whose COI they signed ø nor are they required to do so. If this is true, did they board the vessel at the dock, ride it underway øin the canal,ø or observe it performing a variety of tasks in an offshore assignment?

We understand that most Coast Guard officers never served in the merchant marine. The vast majority of Coast Guard officers never worked on or even observed the work performed on an OSV or a tugboat in oilfield service.

We need examine who in the Coast Guard hierarchy

studied the OSV vessel manning issue at sea and then applied those lessons in existing regulation and policy that require a safe and adequate crew.

### Do Your Homework!

Two Coast Guard officers performed a Functional Job Analysis of Maritime Personnel Employed on Offshore Supply Vessels (CGDm8-01-82) published in January 1982. It was a professional and detailed in-house study. Back then, the øtypicalø large offshore supply vessel was 185-feet, the same size as the two vessels mentioned above. In 1982, todayø OCMIs were polishing brass at the Coast Guard Academy. While we may forgive them and other Coast Guard officers for not reading this 625 page report before being assigned to billets on the Gulf Coast, we cannot continue to forgive them for not reading this study today! Headquarters should have made this study required reading for every officer assigned to marine inspection duties involving vessels serving in the offshore oil industry. Whatø more, OSVs have grown and become much more sophisticated in methods of propulsion, power generation, and pumping since 1982. Many vessels are dynamically positioned. However, the Coast Guard allowed its knowledge of our mariners who serve on these vessels to wither on the vine and gather dust on a bookshelf. SHAME!

We suggest that the OCMIs in Mobile who signed off on a four-man crew on the M/V GLORIA CALLAIS should have done his homework. The idea allowing four men to crew any 185-foot OSV on a 24-hour basis, day in, day out, is a cruel joke on every mariner manning a vessel this size. It is an accident waiting to happen.

### The Towing Industry Needs "Functional Job Analysis"

The Coast Guard needs prepare the same type of øFunctional Job Analysisø<sup>(1)</sup> for the towing industry. However, if the Coast Guard lacks the time, expertise, or interest to do so, Congress might require them to hire an outside contractor. [<sup>(1)</sup>Refer to our Report #R-428-C, *previously mentioned*.]

Unfortunately, only the Coast Guard can translate a study into practice. That means that persons in authority must read and act upon such a study. The Coast Guardø past record on this has been very poor as regards OSVs. Such a functional job analysis should have been a pre-requisite to bringing over 5,200 towing vessels under inspection ø especially considering the egregious work-hour violations already proven to exist in the towing industry.

What is the price of undermanning a vessel. Look at the crew shortages that exist among lower-level mariners today and judge for yourself!

### UNDERMANNED "SUPER" CREWBOATS OF LESS THAN 100 GROSS TONS

*[One method to continue to exploit lower-level mariners working in the offshore oil industry was revealed by Larry T. Rigdon (who at the time was Senior Vice-President, Tidewater, Inc), in a letter addressed to Coast Guard Docket #USCG-1997-3198 on June 1, 1998.*

*It extremely significant that copies of this letter also were e-mailed to and initialed by Captain William C. Bennett at the National Maritime Center (NMC) four days later. Bennet's branch of the NMC exercised control over the nation's merchant marine personnel. Senior officers in this branch apparently were unwilling to take steps to protect working mariners working on large, undermanned "super" crewboats or to protect the environment and simply ignored the message.*

*"Super" crewboats are vessels constructed to admeasure under 100 gross register tons. Their Certificates of Inspection do not require a trained Tankerman (PIC) to take charge of pumping the large quantities of fuel, liquid mud, liquid chemicals and other pollutants at the dock or at offshore destinations. In contrast, on inland waterways, a trained and properly certificated Tankerman (PIC) must pump liquid cargo. A super-crewboat's Certificate of Inspection does not require it to carry an engineer.*

*Chances are, if you have a license, you will be held responsible for an oil spill. Also, with a license, you may be the only person with enough knowledge of the engine room to change the oil on 3, 4, or even 5 main engines and several generators. This is another example the Coast Guard overlooks and thereby allows potentially unsafe conditions to exist on small commercial vessels. Emphasis by underlining is ours.]*

To Whom it may Concern:

The following pages contain a response to the USCG request for industry input concerning the establishment of alternate tonnage design criteria and/or thresholds. Tidewater, Inc. (Tidewater) would like to offer some general information about the negative impact that existing tonnage design criteria are having on one segment of the offshore petroleum industry, and we will provide a Tidewater response to the alternative tonnage questions provided by the USCG for industry consideration.

In general, it is agreed that any design criteria, which incorporates tonnage reduction techniques, can be manipulated to allow very high risk or unsafe vessel operations. Tidewater cannot emphasize enough our support for continuing action to stop tonnage manipulation resulting in the operation of vessels at high risk or in unsafe conditions. In order to help illustrate the significant risk associated with tonnage manipulation, Tidewater has provided examples of aggressive manipulation of the U.S. tonnage regulations in this document.

An example of the manipulation of tonnage reduction techniques is the current "super" crewboat, (actually a fast supply boat). The "super" crewboat class, is made up of vessels between 150 and 200 feet in length, are powered by up to 6,000 horsepower<sup>(1)</sup> and are remarkably under 100 U.S. Gross Tons. These vessels can be and are typically operated by a four (4) person crew, composed of one master with an under-100 GT USCG license and three (3) ordinary seamen. None of these individuals are required to have any engineering based training. The only requirement for the three ordinary seamen is the completion of basic safety training under STCW. <sup>(1)</sup> *Installed shaft horsepower for these vessels continue to rise. For example, the March 2008 issue of WorkBoat magazine shows the new 170-foot M/V Seacor Cheetah*

*with 13,320 shaft horsepower. Fortunately, it will carry a larger crew.]*

These new "super" crewboats are actually working as offshore supply vessels, not as crewboats. The "super" crewboats routinely operate at speeds in excess of 20 knots, around the clock, while carrying up to 400 tons of cargo consisting of general oilfield supplies and equipment, fuel, water, and containerized items, including dry cement and barite in portable tanks. In the same manner of operation as an OSV, this cargo is off-loaded at offshore rigs and platforms either through transfer by crane or by pumping the liquids or dry bulk cement and barite off the vessel utilizing the vessel crew. Unlike an OSV, none of the crewmembers of the "super" crewboat are required to be DDE licensed engineers or tankermen. We do not believe that this is what the rule makers envisioned when the Subchapter T rules were first drafted. Manipulation of this type should be stopped.

It is Tidewater's opinion that operators are deploying "super" crewboats (really aluminum supply boats with passenger seats) as OSVs, to avoid the training impact of STCW, with fewer crewmembers with less training. Tidewater can evidence that recently delivered 165-foot "super" crewboats, built with three (3) main engines of 2,000 horsepower each are only required to have a crew of four (4) persons having the absolute minimum qualifications described above. This compares to the most recent new build 200 foot plus offshore supply vessels with only two (2) main engines of 2,000 horsepower each which is required by its COI to have a highly qualified crew of nine (9) persons.<sup>(1)</sup> **[<sup>(1)</sup>NMA Comment: Many 200 foot OSVs operate with far fewer than 9 persons!]**

Having cited only a single (extreme) example of the potential hazards associated with tonnage reduction schemes, Tidewater recommends no further consideration be given to the future use of any (including the current U.S. Regulatory) tonnage reduction techniques. Instead, the USCG should focus all its attention on the use of "International" tonnage and the establishment of acceptable corresponding thresholds for all new construction...

**[NMA Comment: We ask Congress to direct the Coast Guard to give adequate and fair consideration to the safety, protection and well being of lower-level mariners in all the cute tonnage schemes used by industry to bypass significant regulatory breakpoints and safeguards.]**

### **UNTRAINED "DECKINEERS" ARE DANGEROUS?**

A ðeckineerö is a combination deckhand and unlicensed (and usually untrained) engineer. This term does not appear in any regulation. It is a part of ðon-the-job trainingö that justifies an entry-level person's presence in a vessel's engine room.

Trying to be in two places at the same time can be hazardous to life and limb. The following example<sup>(1)</sup> resulted in one fatal and two serious injuries and knocked out the Claiborne Avenue Bridge, a major New Orleans traffic artery, for over two months. <sup>(1)</sup>*NTSB/HAR-94-03; NMA file M-059.]*

On May 28, 1993 the Captain of the small towboat M/V

CHRIS told his newly-assigned deckhand to drain the engine's fuel traps "on every watch" because they must have "picked up some dirty fuel..." According to the deckhand, the engines seemed to be in good running order earlier in the day but the starboard engine had started to run roughly.

The Captain told the deckhand to go below and change the primary fuel filter on the starboard engine. The operator put the throttle in neutral, and the deckhand went down to the engine room where he shut down the starboard engine and changed the primary filter. While the deckhand was working on the starboard engine, the operator kept the port engine engaged ahead at quarter throttle with his empty one-barge tow pushed in against the bank. The deckhand said that after he restarted the engine, "the Captain pushed the throttle forward...to see if performance was better. The barge slid up the bank a little more, and he told me that he was still having problems with it...[and that] I needed to change the secondary [fuel filter]."

Shortly after the deckhand returned to the engine room, the operator left the wheelhouse unattended to go below and help his newly assigned deckhand change the secondary filter. Apparently, a wind gust caused the tow to start to slip and shift position. In the 3 to 5 minutes the operator and the deckhand were below, the tow headed south toward the north support column (i.e., öbentö) of the Claiborne Avenue bridge. The barge's headlog struck a major bridge support causing a section of the roadway to collapse.

The Captain had worked on this waterway for 20 years and was rated as a "very good master." The deckhand had only worked for the company for two days before the accident. In the aftermath of the accident, it appears that the deckhand was competent to change the two filters and the Captain was cited (and punished) for leaving his pilothouse unattended.

Unfortunately, and the NTSB seemed to miss this point, this is a foreseeable result of providing a vessel's Captain with a deckhand with unknown and unproven qualifications to act as a ödeckineer.ö After testing the engine and finding it did not operate properly after a filter change, this tempted the captain to troubleshoot the malfunction using his 20 years of experience before entering New Orleans' busy Industrial Lock and risking an engine failure with the potential to destroy the lock gate and tie up traffic for weeks if not months.

The fact is that there are no requirements for licensed or unlicensed engineers to serve on board towing vessels. The practice of using a "deckineer" (i.e., a deckhand who also has assigned duties in the engine room) may leave the engine room unmanned at a critical moment. For example, if an engine stalls as a tow is entering a lock with the experienced "deckineer" handling lines or a fender on the head of a tow, it may take several minutes for him to rush aft to the engine room to restart the stalled engine long enough for the tow to smash into (or through) the lock's gates.

In another example, a "deckineer" on 105-foot docking tug with only a three-man crew suddenly discovered he had engine duties to perform. He left the remaining deckhand to heave in a sopping wet 9-inch dacron towing hawser alone. This caused the deckhand to suffer a serious back injury that permanently disabled him. The cost of the ensuing lawsuit would have easily paid the salary of

another deckhand for years!

In still another example, the Captain of an oceangoing tug went into the engine room and restarted his engines without checking the oil. The oil had drained from a leak in the valve cover the previous day. The engine destroyed itself shortly after leaving the dock because of lack of oil.

## DEATH IN THE ENGINE ROOM

*[NMA Comment: The work-hour abuses of lower-level mariners have reached a crisis level. This crisis attracted public notice in the Interstate 40 bridge collapse at Webbers Falls, OK, on May 28, 2002 and caused us to direct our Report #R-370-A to Congress in May 2007.*

*Work-hour abuse is widespread in the engine rooms of tugs, towboats, and OSVs. Our Report #R-412, Towboat Engineer's Death Points to need for Changes in the Law details the story of the death of Chief Engineer Gary Duncan. The case stemming from his death was decided by a jury verdict on July 26, 2002. The Estate of Gary Duncan was awarded \$950,000.*

*It is unfortunate that some employers are so blind to the human needs of their employees that they only respond with an assault on their "bottom line." We regret that the message this verdict rendered by a jury of ordinary citizens sent to the marine industry has not yet attracted enough attention in both the Coast Guard and the industry to bring about increased manning and training for engine room personnel.]*

**[NMA Comment: In September 2004, Congress directed the Coast Guard to bring towing vessels under effective inspection standards. Unfortunately, if Congress intended those standards to include effective manning standards, the Coast Guard never received the message.]**

This case was brought by the widow of a licensed engineer in her individual capacity and as representative for the Estate of her deceased husband under the Jones Act for the death of her husband suffered in the course of his employment with the defendant American Commercial Barge Lines, LLC. (ACBL).

The decedent, Gary Duncan, was working as a chief engineer when he died of a sudden cardiac death on May 31, 1999, while taking a break in the engine control room on ACBL's towboat, the MISS KAE-D, while it was pushing barges on the lower Mississippi River in Louisiana.

Chief Duncan had worked for 24 days consecutively, 15 days of which were spent working without the assistance of another engineer. As the chief engineer, he was responsible for inspecting, maintaining, repairing, and cleaning the engine room and its components, including three diesel locomotive type engines that powered the boat. Within an hour before his death, he was assisting in the removal of a 200 lb. power pack (reportedly the eleventh such power pack), in ambient engine room temperatures exceeding 125 degrees F. He was required to work more than 12 hours a day during irregular work and rest cycles, typically alternating periods of 6 hours on/off ö that did not violate any published regulation. He was often awakened from sleep on the boat by engine alarms that required his immediate attention.

[NMA Comment: The Coast Guard promulgated NVIC #1-69 titled Automated Main and Auxiliary Machinery in 1969 to recognize an "...evolution from manned to unmanned enginerooms as proposed by the industry." We have no evidence that lower-level mariners ever provided input in the preparation of this NVIC.]

[NMA Comment: In 1978, the Coast Guard promulgated NVIC #1-78 titled Automation of Offshore Supply Vessels of 100 Gross Tons and Over. Although NVICs are guidelines and not laws or regulations, they allow alarms and automated features to replace watchstanders in the engineroom or in an engineroom control station. Unfortunately, a human being must answer an engine or bilge alarm whenever activated day or night on any vessel in 24-hour service.]

[NMA Comment: We urge Congress to require that the Coast Guard review all "guidance documents" including but not limited to NVICs 1-69 and 1-78 and require all subsequent policies and directives be based upon adequate attention to "human factors" and created with active input from the "lower-level" mariners they affect.]

Gary Duncan's typical work cycle was 40 days on the boat and 20 days off, which was consistent with industry standards. The company, ACBL, argued at trial that since its practices were consistent, that it was not negligent.

The company denied liability and argued that the death was a natural event caused by years of smoking, diabetes, family history, and high cholesterol levels that were not work-related. A co-worker, who resigned after Gary's death, and the plaintiff's maritime expert testified that the boat should have been manned by 2 to 4 full time engineers scheduled on regular watches, like the rest of the crew, so as to allow for uninterrupted sleep. The Valley Line, the company that previously operated the boat, used the larger size engine crew on the vessel when it was in 24-hour service. The crew was cut as an economy move after ACBL acquired that company and its vessel and crew. Requests by the crew for additional assistance were denied. The expert and co-worker testified that the manning levels used by ACBL were inadequate, unsafe, and violated industry custom and practice.

The autopsy report showed significant coronary artery disease and concluded that it was a major cause of death. However, Chief Duncan's medical expert testified that the significant work stressors and sleep deprivation were contributing causes of both the acute cardiac event and the development of coronary artery disease.

Mrs. Mary Duncan submitted damages for lost economic support in the form of wages, benefits, and household services and for damages suffered by her husband prior to death for chronic psychological distress. The decedent's economist suggested that the economic loss was about \$850,000.

The decedent's counsel noted that these "customary" practices were the subject of recent national and local media scrutiny following the Oklahoma bridge tragedy at Webbers Falls on the Arkansas River but that regulation of the industry is weak and laws often are not enforced.

[NMA Comment: We urge Congress to address unsafe

work hour and workplace conditions that far exceed those seen in other industries. Although industry acknowledges the 12-hour laws that limit the hours of service of licensed boat captains and pilots, they refuse to acknowledge the need for comparable limitations for unlicensed crewmembers, such as engineers, deckhands, cooks, tankermen, and "deckineers" who face similar work stress, fatigue, and safety concerns.]

#### POSSIBLE ROLES FOR ADVISORY COMMITTEES IN HANDLING MANNING ISSUES

There are legitimate roles Coast Guard Federal advisory committees can play in the vessel manning process:

- **For MERPAC:** MERPAC has connections to training schools that prepare lower-level mariners for licenses and merchant mariner endorsements. Through interaction with students in these schools and effective follow-up with those who complete courses, determine how working mariners can contribute effective suggestions on adjusting vessel manning for cases where inspected vessels (including towing vessels) are undermanned. "Undermanned" includes any situation where the assigned crew cannot maintain an effective watch either because their work hours violate legal requirements or because individuals are not adequately trained for their assigned jobs. MERPAC connections with the Coast Guard should be able to make things happen. Unfortunately, they have done little to alleviate the conditions mentioned in this report in the past because the Coast Guard has focused their attention on STCW and upper-level issues to the detriment of lower-level mariners for many years.
- **For MERPAC:** To determine how unlicensed engineers on all vessels under 200 gross tons should be trained to work safely and effectively in a basic engineroom with diesel propulsion machinery, diesel generators, storage batteries, 120/240 volt electrical equipment, mechanical, hydraulic and electric over hydraulic steering gear, pneumatic equipment and tools, valves/ tanks/ vents/ pumps/ manifolds, handling fuel and filters, changing oil without polluting, and pollution prevention in general. There are two levels of training: 1) Safety training for any crewmember that performs engineroom duties (i.e., enters the engineroom) and 2) Vocational training for those regularly assigned to perform engineroom duties. Unfortunately, MERPAC effectively sidetracked this issue in their April 2008 meeting further assuring that nothing meaningful will be done to provide formal training to lower-level engineers. [Refer to our Report #R-428].
- **FOR NOSAC & TSAC:** To identify and provide input on training and manpower needed to operate technologically advanced equipment found on tugs, towboats, and OSVs such as bulk and liquid mud tanks and pumping systems, SCR and other innovative propulsion systems, winches, capstans, communications and navigation systems, dynamic positioning, and automation required by NVIC 1-78.

**[NMA Comment: Based upon our past experiences with TSAC, we are uncomfortable entrusting this committee to decide issues involving mariner safety and welfare or workplace issues aboard towing vessels.]**

- **For TSAC:** To recommend that work-hour limits be placed on all unlicensed deck and engine personnel serving on towing vessels where no regulations currently exist and to provide full manning on each shift.

**[NMA Comment: Because it is unfairly dominated by one industry trade group, we recommend that Congress either re-constitute or abolish this Federal advisory committee or abolish it. Refer to Our Report # R-417. Rev. 1, Feb. 25, 2007. Report to the 110<sup>th</sup> Congress: Request for Congressional Oversight on the Towing Safety Advisory Committee. (TSAC). 11p]**

- **For TSAC & MERPAC:** To jointly discuss the need to train and certify all lower-level mariners expected to carry out safety-sensitive duties in the engine room of any commercial vessel manned by lower-level personnel including small passenger vessels.

**IMPORTANT MARINER HEALTH ISSUES**  
**By Captain Roland Rodney**

I would like to bring to your attention a very serious and on-going situation that arises when many mariners renew their licenses with the Coast Guard. In many cases, the Coast Guard requires a special medical report from a physician when a mariner's physician reports high blood pressure. In one case I know of, a mariner has had to pay in one up to \$12,000 to complete the process of renewal.

Good health is vitally important to all working mariners. One of the keys to good health is good nutrition and good eating habits. Yet, on many vessels in the Gulf of Mexico, on the western rivers and inland waters, the boat companies do not provide any cooks on board the vessels that work on a 24-hour basis. This is true on towing vessels, other support vessels, offshore supply vessels, and small passenger vessels where their crews have operated for years with no proper eating or food preparation habits. However, it has not always been this way.

In the past, line-haul towboats, harbor tugs and offshore supply boats provided cooks to feed their crewmembers. They were removed not because their services were superfluous but rather in an attempt to cut costs. Any savings that were achieved were at the expense of the crew's health and welfare. This is just one of many factors that caused lower-level mariners to desert the industry in droves and one that few employers ever consider.

On these vessels, one crewmember may either decide to cook or simply be assigned to do the job. Even if the individual is documented as a "Food Handler" on his merchant mariner document that is a basic entry rating and demands no special training and is issued routinely to mariners by the Coast Guard.

**[NMA Comment: USCG regulations at 46 CFR §12.25-20 in effect since Dec. 30, 1965 conflict with USCG**

**Guidelines in NVIC 2-98, Enclosure 1 paragraph 2.a. indicating that: no physical exam is required for an "Original MMD endorsed as ordinary seaman, wiper, stewards department food handler." It appears that the Coast Guard threw this basic mariner protection to the wind.]**

On inland vessels and on vessels of less than 100 gross tons where many of our lower-level mariners work and in other instances where merchant mariners documents are not required, not even a basic "Food Handler's" endorsement is required and not even the most basic sanitation and food preparation training! One or two "Wash Hands After Using Toilet" signs are the only reminder of even the most basic sanitary requirements.

While cooking for others, attending to other duties most often overshadow the preparation of food. Often, the food is not cooked properly, purchased, or prepared with any consideration of its nutritional value.

On vessels in 24-hour service, proper food preparation is essential to maintain mariners' health so that they can endure the two-watch system (i.e., the so-called 12-hour rule). On many vessels, 12-hour work-days only apply to the vessel's officers with no limit to the hours or number of callouts demanded of unlicensed crewmembers. Diet on board is especially important to the crew serving on these vessels. This is borne out by a recent Coast Guard report<sup>(1)</sup> that deals with the health of crewmembers on their own cutters! What's good for the goose should be good for the gander! [<sup>(1)</sup>*U.S. Coast Guard Guide for the Management of Crew Endurance Risk Factors, USCG Research and Development Center, Project #3302.4.2, Report CG-D 13-01*]

**[NMA Comment: A former Chief of Marine Safety in the Eighth District told our Association that providing cooks on commercial vessels was a "labor issue" and not a Coast Guard issue. Although clarifying the issue and the Coast Guard's non-involvement, it places the issue squarely in the lap of the vessel owners.]**

**[NMA Comment: We ask Congress to require any vessel owner who operates a commercial vessel in 24-hour service to provide a healthy cook trained in basic nutrition and sanitation issues for the health and safety of our mariners that are "captive" to their workplace.]**

On vessels where our mariners work continuously for as much as 3 months on and 1 month off, or 28 days on and 14 off, we work on board these vessels and away from our families. What use are we to our families without our good health. Good health is one of a mariner's most precious possessions!

In contrast, we see Coast Guard vessels leaving ports for sea with cooks onboard. We see rigs and platforms with cooks that are trained to know the variety of food needed to maintain a good diet and that the food must be stored at the right temperature and cooked properly. On some vessels, the crew's fondest wish is to receive a hot plate of good, healthful food sent down in on the personnel basket by a thoughtful rig cook! Such an act of kindness can make your day much brighter.

We ask all maritime employers as well as the Coast Guard

that documents "Food Handlers" to look seriously into these matters. We believe it should be mandatory that a trained and disease-free cook be required on these vessels that are in 24-hour service in the towing and offshore oil industry.

**[NMA Comment: Our Association discusses health issues of safe drinking water, smoking, hearing protection, and stress separately in our Reports #R-440, Rev. 1, #R-395, Rev. 2 and #R-341, Rev. 3, #R-349 and #R-403 respectively.]**

#### **OTHER REPORTS OF WORK-HOUR VIOLATIONS**

R-370. Jun 16, 2003. 12 Hour Rule Violation: The Verret Case. 12p  
R-370-A, Rev. 2. (Series). May 19, 2007.. Report to Congress: Fifth Anniversary of the Webbers Falls I-40 Fatal Bridge Accident: Unresolved Issues Revisited. 12p.  
R-370-B, Rev.4. (Series). June 1, 2006. Violation of the 12-Hour Rules: The Tug Chinook Strikes & Damages The Lake Washington Bridge. 14p  
R-370-C Rev. 2. (Series) June 5, 2006. 12 Hour Rule Violations: The Winkler Case. 5p.  
R-370-D. Rev. 5. Sept. 28, 2007. Work-Hour Abuse, Whistleblower Protection and øDeadhead Transportation. 16p.  
R-370-E. (Series) July 6, 2006. Crew Endurance: Work-Hour Laws and Regulations Need Review. 8p.  
R-370-F (Series) July 6, 2006. Crew Endurance Management Systems. *[Renumbered]* 9p  
R-370-G. (Series) Nov. 21, 2006. Crew Endurance: The Call Watch Cover-up. *[Renumbered from #R-375.]* 10p.  
R-370-H. (Series) Mar. 14, 2006. 12-Hour Rule Violations: Harbor Tugs and The øOne-Watchø System. 4p  
Report #R-370-I, Feb. 28, 2008. (Series) Safe Management of Crew Travel Time  
R-412 April 25, 2005. Towboat Engineerø Death Points to Need for Changes in the Law. 20p.