

# Gulf Coast Mariners Association



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## GCMA REPORT #R-370-H

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[*Publication History & Source:* GCMA Newsletters #43 (Oct. 2006) & 44 (Nov.-Dec. 2006) + Coast Guard meetings and interviews.]

### 12-HOUR RULE VIOLATIONS: HARBOR TUGS AND THE "ONE-WATCH" SYSTEM!

[*Source: Alertness Assurance: The Key to Reducing Fatigue and Human Error in the Marine Industry, was the keynote address given by Mr. William Sirois, Vice-President of Circadian Technologies at the Eighth Coast Guard District Industry Day held in New Orleans, LA, on May 15, 1996 before a large audience of 500 from all sectors of the maritime industry. He covered this anecdote that appears in print in the book The Twenty-Four Hour Society by Martin Moore-Ede, MD, PhD, ISBN 0-201-6211-x.*]

By the time the accident occurred at 6:30 A.M. on October 30, 1988, the tugboat captain had been on duty almost continuously since 3:00 P.M. the previous day. He had worked the 3:00 P.M. to midnight shift on the NEILL McALLISTER and then worked until 2:17 A.M. on another, more powerful twin-screw tugboat, the FRITZY K. He had then changed tugboats, and had a short rest of one or two hours before he was called out again at 5:00 A.M. to meet the incoming cruise ship FESTIVALE.

It was dark when he met the FESTIVALE, and as he trailed the ship into San Juan Harbor dawn was just beginning to light the horizon ó the most deadly time of day for someone who has been up for most of the night. By the time the accident occurred, our mathematical simulation showed that the tugboat captain's sleep-deprivation depressed alertness level had dipped to its lowest point—much lower than that of a fully rested person.

The task of trailing immediately behind the stern of the FESTIVALE required continuous attention, but it was an extremely monotonous job for the captain, all alone on the bridge of his tugboat. There was no steward to bring him coffee, the other crewmembers were down on the deck; no one could relieve him. He just had to hang in there and try to concentrate on keeping his tugboat steady in the stream of wash that would spin him around backward and into the stern of the cruise ship if his attention lagged for a moment.

And then it happened. The fog of a microsleep appears to have descended on his brain so that, for a moment, he lost his attention on the task at hand. Before he knew it, his boat was spinning around and being pulled toward the FESTIVALE – and his reflexes were too slow to take the necessary corrective action. The tugboat swung around and came alongside the FESTIVALE. The tugboat's bow, now pointing to the stern of the FESTIVALE, became entangled with metal hooks on the side of the cruise ship. Obsessed with the-potential ripping of the canvas on his tugboat's bow ó a relatively minor problem ó the captain failed to notice the large red letters just in front of him that warned of danger from the screws below.

Three loud thumps occurred below deck, and the captain still didn't realize what was happening until the tugboat started to take on water and sink. He and his crew jumped into the water and swam safely to shore, leaving their tugboat at the bottom of San Juan Harbor.

Not every case is so clear-cut, but this account shows how the role in a human error incident of factors that cause loss of alertness and reduced performance can be assessed.

### The "One-Watch" System on Harbor Tugs

October 5, 2006

Commandant (G-LMI) and  
Commandant (G-PSO)  
United States Coast Guard Headquarters  
2100 Second Street, SW  
Washington, DC 20593-0001

Commander  
Eighth Coast Guard District  
501 Magazine Street  
New Orleans, LA 70130

Subject: Request for Guidance on the 12-hour Rule as it affects Towing Vessels on a One-Watch System  
Our File #GCM-164; Correspondence # Ncma1005.3M

#### References:

Title 46 U.S. Code 8104(a)(h)  
Title 46, Code of Federal Regulations, §15.705(a-d)  
Coast Guard Policy Letter G-MOC-04-00, Change 1  
Coast Guard Docket # USCG-2002-13594

#### Gentlemen:

The Gulf Coast Mariners Association writes this letter on behalf of the approximately 15,000 licensed towing vessel officers who work aboard towing vessels affected by the statutes, regulations, and policies cited above.

While we understand that most towing vessels in 24-hour service follow either a two-watch system and (occasionally, but very rarely, a three-watch system), this letter concerns watchstanding on a vessel in a one-watch system. Specifically, this refers to a towing vessel that has only one licensed officer on board the vessel while the vessel is on call on a 24-hour basis.

■ is the single licensed towing officer on a towing vessel that does ship-docking and other harbor work in a major southern port in the Eighth Coast Guard District. His vessel operates with a single watch crew on a 24-hour basis.

I have heard similar stories from up and down the Atlantic Coast. However, this is the first one, however, that provided me with contact information that we can use to obtain further information or clarification. I am sure ■ will be happy to provide specific information although we did not want to put his name in this letter.

■ is a senior company captain operating a new, state-of-the-art towing vessel. His company is a non-union company. He appears to be satisfied with his employment. However, he believes that **there are times that the work-hours he works are unsafe both for himself and his crew.** Consequently, GCMA presents this as a safety issue.

■ called a Lieutenant Commander in his Sector's Prevention Office who referred him to GCMA. We want to ascertain whether the Coast Guard interprets the "one-watch" system he performs under as described is "legal" or not. Neither I nor LCDR (?) could provide him with the direct answer he requires.

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The port ■ serves in is a busy port with constant activity. His company dispatcher will continue assigning his company's vessels to various jobs (including ship handling and docking) throughout the port until such time as he is notified that Captain ■'s boat is no longer available. This might include jobs that are three hours here, four hours there, and six hours in a third place. If ■ is in the middle of a job, it may not be possible to break it off when he has put in the required twelve hours and he may be forced to violate the statute with penalties and sanctions he seeks to avoid.

■ pointed out that he believes his company does not intend to break the 12-hour rules. The defenses they put in place are that they expect the captain to call the dispatcher after he has put in "ten hour behind the sticks" and give the dispatcher a two-hour warning notice that he will have to shut down the boat. When he does so, ideally the boat will be pulled off line for 12 hours. Again, this defense is not always possible. In one case he cited, he was "at work" for 22 to 23 hours in one 24-hour period.

The possible one flaw in this system appears in the definition of "work" in G-MOC Policy Letter #04-00 that states: "Work is any activity that is performed on behalf of a vessel, its crew, its cargo, or the vessel's owner or operator. This includes standing watches, performing maintenance on the vessel or its appliances, unloading cargo, performing administrative tasks, whether underway or at the dock."

His company, however, only counts his time at the helm as work. This means that he may find himself on duty doing "work" on behalf of the company that is not credited to his time on duty. Consequently, if the definition of "work" appeared in the regulations and not in an obscure policy document it might prevent work-hour abuse. This assumes that the Coast Guard's definition of "work" is supported adequately by statute. If not, the Coast Guard has means of bringing this deficiency to the attention of Congress as do we. Additionally, we opine that this is one of the things the regulatory team (G-PSO) working on the towing vessel inspection docket should consider.

■ reports that there are many times that the sleep he obtains on the job is badly fragmented. This would have adverse effects upon his Circadian Rhythm as documented by the Crew Endurance Management project the Coast Guard recently presented to Congress. He is unable to

obtain six uninterrupted hours of sleep a significant safety problem. While six hours of uninterrupted sleep is an STCW requirement on many vessels operating in international waters, his vessel and other harbor tugs operate on inland waters.

Another possible flaw is that 46 U.S. Code §8104(a) calls for deck officers to obtain six hours of rest before taking charge of a watch. Under this "one watch" system as described to me by the mariner, such rest is not always possible making this an unsafe condition. See our entries on the docket cited under "references" above.

On May 15, 1996, I attended an Eighth Coast Guard District Industry Day meeting where the keynote speaker was William G. Sirois [*above*]. Dr. Sirois told the audience of approximately 500 maritime industry executives the story of the sinking of the shipdocking tug M/V NEILL McALLISTER. The story appears in the book The Twenty-Four Hour Society by Dr. Martin Moore-Ede, MD, PhD, and describes a situation similar to that described by our mariner. It is predictable that conditions described by ■ could lead to comparable fatigue-related accidents.

In an unrelated towing accident (Oil Barge "B-120 Grounding Apr. 27, 2003 in Buzzards Bay) where a licensed mate chose not to seek help from his off-duty captain, paragraph 2 of the investigating officer's informal report<sup>(7)</sup> stated:

"Studies, including Coast Guard studies show that "sleep deficit" occurs after the first day of this routine of 6 hours on, 6 hours off, increasing in its effect on cognitive abilities (alertness) each day. Calling for the master's assistance for non-emergencies increases his/her sleep deficit and exceeds work hour limits set by law. Therefore, many functions must be accomplished by a single deck officer or timed to occur during watch changes. The Mate had an incident on his prior watch where a tow wire was lost; this incident may have negatively impacted his rest during his "off" period prior to the grounding. It may also have impacted his working relationship with the assigned deckhand if he had been involved.

In this staffing situation a single person was on watch with complex as well as mundane tasks to be completed. There are enumerable details to be aware of as the transit progresses and the nature of the marine environment changes. This must be accomplished day in day out, while in sleep deficit, with no additional direct oversight or assistance to help catch human slips or errors." [<sup>(7)</sup>Misle Activity #1784825, Misle Case #11423, MSU Providence).

**[GCMA Comment: We recently released GCMA Report #R-429-D Coast Guard Investigations: Buzzard's Bay Tank Barge Grounding and Oil Spill, April 27, 2003 that is available on the internet.]**

In a third towing accident involving the M/V ROBERT Y. LOVE, over four years after the accident, the Coast Guard charged the vessel owner as well as the master with violating the 12-hour rules and fined them \$20,000 and \$5,000 respectively. LCDR Derek D'Orazio (G-PSO) is aware of this case and knows that we are awaiting the final decision from the Hearing Officer when the appeal process runs its course. This case provides adequate justification for ■ to ask this question and for GCMA to seek to provide a meaningful answer for publication to our mariners.

**[GCMA Comment: We recently released GCMA Report # R-370-A Report to Congress: Violation of the 12-Hour Rules: Webbers Falls Accident Revisited. This report will be revised as soon as the Coast Guard releases the information requested under FOIA.]**

Please notify us whether you believe this situation is adequately covered by existing statutes, regulations, or policies or whether the Coast Guard should (and will) initiate a legislative change proposal. Since I am not an attorney, please phrase your written response in terms that the ðlower-levelö mariners who read our Newsletter will understand.

If new regulations are necessary, we suggest that towing vessels be designated under the forthcoming towing vessel inspection regulations as either ðtwelve-hourö or twenty-four-hourö boats and that a complete deck and engine crew be mandated for each of the watches by the vessel's Certificate of Inspection. Very truly yours, Richard A. Block, Sec'y, Gulf Coast Mariners Association.

**HARBOR TUGS AND THE ONE-WATCH SYSTEM:  
THE COAST GUARD RESPONSE**

GCMA Newsletter #43 (Oct. 2006) directed a letter to two branches of the Coast Guard dealing with the work-hour problem experienced by many mariners working on harbor tugs. One response to our letter of Oct. 5, 2006 was drafted by Captain L.W. Thomas, Chief, Office of Operating and Environmental Standards (G-PSO) in a letter dated Nov. 7, 2006.

**Reply**

This is in response to your letter of Oct. 5, 2006, requesting guidance on the 12-hour rule as it affects towing vessels on a one-watch system. In your letter, you describe a specific instance where an individual may be working in excess of the maximum work-hours authorized on towing vessels.

Licensed individuals employed on towing vessels are restricted by statute (46 U.S. Code §8104(h)) from working more than 12 hours in a consecutive 24-hour period except in an emergency.

The Coast Guard attempted to clarify work-hour requirements in Policy Letter 4-00, dated April 26, 2001. From your letter I note you are familiar with the policy letter which defines ðworkö as öí any activity that is performed on behalf of the vesselí ö

If a mariner has reason to believe that he or she is operating in violation of law or regulation, that person should report such violations to the cognizant Officer in Charge, Marine Inspection (OCMI). The OCMI has the authority to investigate possible violation of law or regulation.

**[GCMA Comment: Although the OCMI has the "authority" to investigate, what does a mariner expect the OCMI to find IF he investigates? Logbook entries will have to bear out any expected findings. This is why accurate logbook entries are crucial. However, the Coast Guard never promulgated logbook standards. Refer to**

**our Petition to the Coast Guard on logbooks at Docket USCG-2002-12581. Go to <http://dms.dot.gov> and search for 12581.]**

As you are aware, the Coast Guard is currently drafting regulations to establish Coast Guard inspection of towing vessels. It is unclear yet whether work-hours will be specifically addressed. However, we do expect to include a provision for safety management systems that will likely address some aspects of workplace safety, including work hours. I encourage you to follow this important rulemaking closely and provide input to the docket once it has been opened for public comment.

Please contact Mr. Dave Dolloff at 202-372-1415 if you wish to discuss this further. Sincerely, s/ L.W. Thomas.

**[GCMA Comment: If mariners refused to work for companies that expected them to work more than 12 hours a day, the Coast Guard would not have to belabor the issue.]**

**[GCMA Comment: Since the Coast Guard has a sorry record of taking care of its own seamen, our mariners cannot expect much concern from the Coast Guard about abusive work-hours. To see what we mean, refer to GCMA Report #R-304, Rev. 1, Small Boat Station Search & Rescue Program on our website.]**

**FREEDOM OF INFORMATION ACT REQUEST**

February 25, 2007

ATTN: Ms. Lane McClellan  
U.S. Coast Guard Hearing Office  
4200 Wilson Blvd., Suite 700  
Arlington, VA 22203-1804

VIA FAX TO: 202-493-6924

**Subject:** M/V Robert Y. Love allision with the Interstate 40 Bridge near Webbers Falls, OK May 28, 2002.

**References:** 46 U.S. Code §8104(a); Docket # USCG-2002-13594; File #GCM-62; GCMA Report #R-370-A.

Dear Ms. McClellan,

Our Association followed this accident very closely and made several FOIA requests [**Enclosure #1 & #2**] for which we received and paid for most of the requested information.

Several months ago we learned through an article in the Waterways Journal that the Coast Guard levied a Civil Penalty against the boat owner (Magnolia Marine) and the Master of the vessel (Captain Joseph Dedmon) for violating the 12-hour ðhours-of-service statute for towing vessels, 46 U.S. Code §8104(a) by working more than 12 hours in a 24-hour period. During this time, his employer paid him to perform ðworkö as defined by Coast Guard Policy Letter G-MOC 04-00 (Rev. 1).

We attended the Towing Safety Advisory Committee Meeting in St. Louis in October 2006 and learned at that time, from a Coast Guard officer at the meeting that Magnolia Marine was still within its 30 day appeal time

limit for a \$20,000 civil penalty and that Captain ■■ faced a \$500 civil penalty. It was not clear at that time whether either the company or the Captain would appeal the Hearing Officer's decision.

Can you tell us if Magnolia Marine or Captain ■■ filed an appeal or will the civil penalty assessment prevail. We seek to obtain a copy of the final ruling on this matter to conclude a that we are preparing on this subject related to our inquiries submitted through TSAC and contained in Docket #USCG-2002-13594.

We filed a petition a number of years ago with the Coast Guard that they assigned for further study to the Towing Safety Advisory Committee. No progress has been made in resolving this issue, and at this stage we believe it was assigned for resolution at TSAC so that it could be talked to death, sidetracked, and eventually forgotten. This is unacceptable to us.

We are currently preparing a report on this accident and the information contained in the docket for submission to Congress. In concluding this report, we want to be fair to all sides and include the Hearing Officer's final decision and any decision on any appeal that may have been submitted before the time limit expired. At this point, we would ask for a copy of the entire file. We would accept a smaller segment if it adequately addresses the Coast Guard's view of the statutory violation and fulfills the research required in our report.

Our mariners have been victimized for many years by the violation of this statute. We have reviewed the NTSB accident report (NTSB HAR-04/05) and determined that it inadequately addressed the statutory violation in question.

We address this issue again under FOIA (for the third time) assuming this will be obtain the results by addressing it to your office. If there is an appeal in progress and no decision has been forthcoming (almost 5 years after the accident), please notify us. Otherwise, please provide us with an appropriately redacted response at such time as it becomes available.

Very truly yours,  
Richard A. Block  
Master #1014425, Issue #8  
Secretary, Gulf Coast Mariners Association