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TOWBOAT ENGINEER'S DEATH POINTS TO NEED FOR CHANGES IN THE LAW

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PREAMBLE

This paper deals with the job performed by an engineer on a large inland towing vessel. The situation faced by this engineer is not unique to river towboats. It is shared by ðlower-levelö engineers working on other vessels of less than 1,600 gross tons. Refer to GCMA Report #R-279, Revision 5, that speaks for engineers on offshore supply vessels in the nation's offshore mineral and oil industry.

This paper concentrates on the tragic story of one engineer, Gary Duncan. Few of these stories ever see the light of day because ðlower-levelö mariners have nobody to represent their concerns. The Coast Guard too often serves as the handmaiden of corporate interests. It has failed to protect the merchant seamen it has been charged with superintending and in cases like this simply turns a blind eye to the exploitation these workers face.

The Gulf Coast Mariners Association, a voluntary membership association representing lower-level mariners, respectfully presents this matter to the attention of Congress so that Members of Congress may be properly alerted to long-standing problems and that they may address them appropriately through new and amended legislation.

This report expands upon GCMA Report #R-401, Revision 1, Crew Endurance and the Towing Vessel Engineer ö A Direct Appeal to Congress dated March 8, 2005.

WHICH LAWS NEED CHANGE AND WHY?

46 U.S. Code §8104(a).

- Allows the person in charge of an engineering watch to assume the watch without adequate rest when first boarding a vessel.

46 U.S. Code §8104(b).

- Many vessels are purpose-built to fall under the 100 GRT thresholds for the specific purpose of skirting manning regulations. This is especially true for small passenger vessels. [*Examples: 180-foot crewboat (OSV) of 6,000 horsepower. 240-foot ferry carrying over 500 passengers.*]

- The 100-GRT threshold for towing vessels is meaningless except for requiring training for Able Seamen on larger offshore vessels. It has become a hindrance for mariners as regards towing vessel licensing.

46 U.S. Code §8104(c).

- Employers often interpret ðPermitted to work more than 15 hoursö to allow a 105-hour workweek (i.e., sweatshop conditions).

- It does not stipulate that 7 to 8 hours of interrupted sleep required to keep the human body healthy. Refer to GCMA Report #R-375, Crew Endurance: The öCall-Watchö Cover-Up.

46 U.S. Code §8104(d).

- It is discriminatory in that it does not set reasonable work-hour limits for licensed or unlicensed mariners working on inland waters including rivers to prevent exploitation of these mariners.

- The wording, ðAt Seaö omits necessary protection for persons working in the engineeroom of vessels in inland and river service.

- Exceptions appear to be carefully crafted to leave out large segments of the industry to the clear disadvantage of working mariners.

- Fails to consider the exploited mariners who serve on some very large vessels purpose-built to fall under the 100 gross ton statutory benchmark. [*Example: 180-foot 99 GRT crewboats (Offshore Supply Vessels)*]

- The 100 gross ton benchmark for towing vessels in ocean or coastwise service is less meaningful than the 200-ton benchmark except for the training an öable seamanö receives on offshore tugs >100 gross tons. Such basic training should be required of every ögreenö deckhand.

- Coal passers, firemen and water tenders are archaic terms that do not apply to most mariners working on vessels under 1,600 gross tons. They have not applied for most of the past half-century.

- Not required to work more than 8 hours in one day is overlooked by employers who establish conditions of employment. A much more reasonable consideration used in deep-sea shipping would be to require a three-watch system both in port and underway.

46 U.S. Code §8104(e).

- Exceptions in §8104(d) carry into this section and discriminate against using engineers to perform deck work (in addition to engineroom duties) and deckhands from performing engineering work on vessels over 100 gross tons on inland waters including rivers.
- In GCMA Report #R-401, we maintain that there has been grossly inadequate safety training throughout the industry to allow untrained deckhands to perform any unsupervised duties in the engineroom.
- Subsection (3) is reasonable and welcome, but is widely ignored when vessels not on a three-watch system make a quick turn-around in port, take on cargo and supplies, and return to sea as shown in GCMA Report #R-279, Revision 5.

46 U.S. Code §8104(f).

- This section, although necessary, provides no compensatory time arrangements for mariners whose sleep is interrupted. This interruption can be intolerable on a vessel maintaining a two-watch system.

46 U.S. Code §8104(g).

- The 600-mile figure conveniently eliminates most voyages conducted by offshore supply vessels in domestic service and condemns their licensed officers and crewmembers to a two-watch system that results in severe undermanning and overworking crewmembers. Any vessel in continuous (24-hour) operation should require a three-watch system for the safety, health and welfare of every single mariner.
- The Coast Guard interprets this and other laws (in 46 CFR §15.705(d)) to allow the wheelhouse watch to be divided into two watches regardless of the length of the voyage. This discriminates against officers on towing vessels as compared with officers of other vessels of comparable size and horsepower.

46 U.S. Code §8104(h).

- A 12-hour work limitation is not unreasonable as long as it is part of a three-watch system. It allows a deck or engineering officer to catch up on his paperwork. It allows a Master to be called if one of his subordinates requires relief. It at least permits the possibility of 7 to 8 hours of restful uninterrupted sleep during off-duty hours without disruption of circadian rhythm.
- Amending the statute to make the hours of service law clear will go a long way towards improving safety aboard vessels and holding companies that violate the law responsible for resulting damages.

46 U.S. Code §8104(i) & (j).

- The figure of \$10,000 should be raised to \$50,000 for

violation by any party (e.g., employer or employee) of the revised work-hour laws. The meaning of the word "emergency" should be suitably defined.

WORKED TO DEATH IN THE ENGINEROOM: A SUMMARY OF THE GARY DUNCAN CASE

Although towing vessel officers (Masters, Mates/Pilots) are limited to working a 12-hour day, no such restrictions apply to "unlicensed" crewmembers like engineers, deckhands, or tankermen. In particular, engineers on towing vessels are not required to hold engineer licenses nor do they receive any recognition as unlicensed crewmembers.

A case was decided in 2002 in a St. Louis courtroom that may give some towing companies pause as to how much work they can squeeze out of their unlicensed crewmembers. Although the case was widely reported in St. Louis, the trade journals except for the Waterways Journal avoided it like the plague!

Plaintiff Mary Duncan brought the case, in her individual capacity and as representative for the Estate of her deceased husband, Gary Duncan, under the Jones Act for the death her husband suffered while employed by the defendant American Commercial Barge Lines, LLC. (ACBL).

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

He had been working for 24 consecutive days, 15 days of which were spent working without the assistance of another engineer. As chief engineer, he was responsible for inspecting, maintaining, repairing, and cleaning the engineroom and its components, including three diesel locomotive-type engines that powered the boat. Within an hour before his death, he assisted in the removing a heavy "power pack" from one of the vessel's main engines while working in ambient temperatures exceeding 125 degrees.

Gary Duncan was required to work 12 or more hours a day during irregular work and rest cycles, typically alternating periods of 6 hours on and off duty. He was often awakened from his sleep on the boat by engine alarms that required his immediate attention. His typical work cycle was 40 days on the boat and 20 days off the boat, that were "consistent with industry standards." The defendant (ACBL) argued at trial that, since its work practices were consistent with industry practices, it was not negligent.

[GCMA Position: Although this tragedy occurred on the "western rivers" incidents of overworking "lower-level" engineering personnel occurs in other segments of the maritime industry such as on workboats serving the offshore oil and gas industry. The Coast Guard term "lower-level" refers to all mariners working on vessels of less than 1,600 gross register tons.]

The company denied liability and argued that Duncan's death was a natural event caused by years of smoking, diabetes, family history, and high cholesterol levels that were unrelated to work.

A co-worker, Brad Barton, an experienced engineer, who resigned after Gary's death and the plaintiff's expert, Captain Jay Disler, 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 during off-duty hours. The company that previously operated the vessel utilized a 2 to 4

man engineroom crew. However, the crew was cut after ACBL acquired that company and its vessel and crew.

Legitimate requests by the crew for additional assistance were denied. The expert and Gary's 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, the Plaintiff's medical expert testified that the significant work stressors and sleep deprivation clearly were contributing causes of both the acute cardiac event and the development of coronary artery disease. He pointed to the consistency, the hopelessness, the despair; the lack of improvement and circumstances that pertain to certain jobs, some a great deal more than others, in which individuals like Chief Engineer Gary Duncan are exploited.⁽¹⁾ [Transcript, p. 560.]

Damages were submitted for lost economic support in the form of wages, benefits, and household services and for damages Gary suffered before his death for chronic psychological distress. ACBL argued that the distress damages were not compensable under the Jones Act because they were not due to a physical injury and that the Act did not recognize such claims. Although ACBL's economist suggested that the economic loss suffered was only about \$450,000, Mary Duncan's economist concluded that the losses were about \$850,000. Nevertheless, the final jury award was reported to be \$950,000.

Nelson Wolff, Esq., Mary Duncan's attorney noted that the towing industry's "customary" practices were the subject of national and local media scrutiny following the Oklahoma bridge tragedy at Webbers Falls but that regulation of the towing industry is weak and violations of laws and regulations are not often enforced.

The Gulf Coast Mariners Association is calling on the Coast Guard and Congress to address work conditions which are patently unsafe and which far exceed those seen in any other industry in the civilized world. The industry acknowledges that existence of laws that limit the hours of service of boat captains and pilots but refuses to acknowledge the need for such limitations for other crewmembers, such as engineers, deckhands and tankermen who face similar work stresses, fatigue, and safety concerns. Although attorneys believe a sound legal argument can be made that unlicensed mariners are within the scope of protection afforded to licensed mariners, they feel a significant chill to present such claims for fear of reversal since the statute does not clearly identify this protection and because there is scant authority in court case law. This should provide additional justification for revision of current statutory law to limit hours of service for ALL maritime workers.

Mrs. Duncan had her day in court. She faced ACBL's lawyers, told her story and won her case.⁽¹⁾ When ACBL dragged her through the appeals process to try and overturn the judgment, the appeals court unanimously affirmed the jury's verdict in her favor and she was awarded interest on the judgment during the appeal delay worked by ACBL. ⁽¹⁾Source: GCMA News #16, p.12 and #28, pgs. 19, 20.]

GCMA ASKED IN VAIN FOR COAST GUARD HELP WITH HOURS-OF-SERVICE REGULATIONS

In reviewing existing regulations, GCMA determined that the Coast Guard provides no regulatory work-hour limits for thousands of unlicensed individuals such as deckhands, tankermen, and unlicensed engineers on inland

towing vessels. Nor have they done so for the over thirty years.

GCMA also determined that the Department of Labor had no work-hour limitation regulations that would govern unlicensed personnel on uninspected towing vessels. The "uninspected" status of over 5,200 towing vessels was challenged following a Supreme Court decision on a seemingly unrelated matter January 9, 2002.⁽¹⁾ [⁽¹⁾Refer to GCMA Report #R-300, Chao v. Mallard Bay Drilling.]

A very similar situation also exists aboard other commercial vessels manned by "lower-level" unlicensed and undocumented mariners. Consequently, our Association petitioned the Coast Guard to protect our mariners by prescribing reasonable work-hours. We met with bureaucratic obfuscation, challenges, and delays in an attempt to wade through the "Advisory Committee" process as detailed below. Based on our experience, we are seeking reasonable changes in that system controlled by the Coast Guard.⁽¹⁾ [⁽¹⁾ USCG, G-MSO, Office of Operating and Environmental Standards.]

Coast Guard Response

GCMA received a reply to an initial letter from CAPT J.D. Sarubbi, Chief, Office of Compliance dated October 18, 2001 that stated:

"This is in response to the letter you faxed to this office on July 19, 2001. In this letter, you requested information regarding work-hour limitations for unlicensed crewmembers on an uninspected tow vessel sailing on the inland waters of the United States.

"As you note in your letter, the Coast Guard does not prescribe regulations governing work hour limitations for unlicensed crewmembers aboard an uninspected towing vessel operating on inland waters and western rivers. While the Coast Guard frequently promulgates policies to interpret existing regulations, to establish new policy in the absence of a law would be prohibited by the Administrative Procedures Act.

"Where pertinent regulations are not in place, we rely on numerous non-regulatory solutions such as the recent fatigue alertness⁽¹⁾ campaign we have embarked on with the American Waterway Operators, and the AWO Responsible Carrier Program...⁽¹⁾Also known as "crew endurance."]

Further, on Dec. 2, 2002, Captain M.W. Brown, on Admiral Pluta's staff, stated in part: "Research conducted by Coast Guard Headquarters legal staff revealed that the Coast Guard lacks the requisite statutory authority to generate regulations addressing work-hours for unlicensed mariners working aboard uninspected towing vessels. Based on this, the Coast Guard cannot initiate a rulemaking project."⁽¹⁾ [⁽¹⁾It speaks volumes about the Coast Guard's inattention to mariners in this industry that in over 30 years, it never occurred to them that such a project was necessary.]

"Understanding that the Coast Guard lacks specific authority to carry out this rulemaking petition, you have requested that we seek a Legislative Change Proposal (LCP) to provide for work-hour restrictions for unlicensed crewmembers serving aboard uninspected towing vessels. During the course of our normal LCP evaluation cycle, we will consider whether or not to include your particular request. However, it must be mentioned that we need to be

extremely selective in choosing LCPs (to) go forward. We must consider the resource implications as well as other stakeholders and agencies and, frankly, the likelihood that our request will succeed. Please keep in mind that you may pursue such requests on your own also.

The Coast Guard knew unlicensed vessel crewmembers work virtually unlimited hours. Yet, they offered no concrete support or encouragement to help overcome this injustice. "Other stakeholders" includes employers who, in other industries, normally pay "overtime" wages for work beyond eight (8) hours but are exempt from doing so in the maritime industry. The concept of "overtime" is ignored and our "lower-level" mariners are continually exploited.

We consider unacceptable the AWO "recommendation" as part of its Responsible Carrier Program (RCP) to limit unlicensed crewmembers to 15 hours of work per day. Accepting this premise would condone a 105-hour workweek ó as 46 U.S.C. 8104(c) apparently has been willing to do. In addition, the Responsible Carrier Program does not have the force of law and its recommendations only apply to AWO members. This leaves our mariners working on towing vessels exposed and unprotected by law and regulation in many areas.⁽¹⁾ [⁽¹⁾Refer to GCMA Report #R-276, Towing Vessels Must Be Inspected Like Every Other Inspected Vessel.]

The current count of approximately 200 AWO-member towing companies fails to take into consideration Coast Guard figures showing that there are more than 1,100 towing companies in the United States. Nor does it take a rocket scientist to understand why there is now and will continue to be a shortage of deckhands, unlicensed engineers, cooks, and tankermen willing to work on this industry's towing vessels and endure these work hours.

THE DEATH OF CHIEF ENGINEER GARY DUNCAN

List of names mentioned in the following court transcripts:

Nelson Wolff, Esq., Schlichter, Bogard & Denton, Attorney for

Plaintiff Mary Duncan, widow of Gary Duncan.

Gary Duncan: Chief Engineer, M/V MISS KAE D

Roy L. Jackson: Master of M/V MISS KAE D

Helton "Butch" Barras: Maintenance Supervisor, ACBL

Paul Warren, Engineer supervisor, ACBL.

Brad Barton: Relief Engineer, M/V MISS KAE D.

Captain Jay Disler, Marine Investigator.

TESTIMONY OF CAPTAIN ROY L. JACKSON

[Source: Direct examination testimony of Captain Roy L. Jackson given in the Circuit Court of the City of St. Louis, July 15-26, 2002 in The Estate of Gary Duncan, Plaintiff, vs. American Commercial Barge Line. Edited for clarity from the court transcript, pgs. 722 through 747.]

Direct Examination Questions By Nelson Wolff, Esq., attorney for the Plaintiff Mrs. Mary Duncan:

MR. WOLFF: Thanks Judge. Good afternoon Captain Jackson.

A. Good afternoon Mr. Wolff.

Q. Would you do me a favor and please state your full name

in open Court?

A. Roy L. Jackson, Jr.

Q. Where do you live sir?

A. ■■■■.

Q. Very good. Captain Jackson we've had the opportunity to meet on actually a couple of occasions, correct?

A. Yes, that's correct.

Q. You are still employed as a captain by the ACBL company, is that correct?

A. That's correct.

Q. You still want to keep your job and continue to work, don't you?

A. Yes, sir.

Q. You've come here to testify today because the company's lawyer have asked you to testify?

A. Yes.

Q. You have never worked as an engineer, chief engineer for this company, is that correct?

A. That's correct.

Q. Before ACBL took over Valley Line is it true Captain Jackson that you worked for Valley Line Company?

A. Yes, I did.

Q. In fact you worked on the Miss Kae D for Valley Line before ACBL took over?

A. Yes.

Q. You agree that the Miss Kae D is a very large vessel as you've put it?

A. Yes, sir.

Q. You were the captain on that vessel since 1988, correct?

A. 1983.

Q. 1983. You understand that engineers work in the service of vessels such as the Miss Kae D, right?

A. Yes, sir.

Q. Do you agree that when the Valley Line was operating the Miss Kae D that the engineers were allowed to stay on what's called square watches meaning that they have an engineer on one watch; he could go to sleep and not worry about things and then there would be an engineer on an opposite watch to relieve him?

A. That's correct.

Q. Which is different than the way that ACBL has it set up?

A. Yes.

Q. That all changed when ACBL took over Valley Line and they cut the engine room crews, correct?

A. They traded out with us for ó they took one engineer out of the engine room. We had -- left us with the same amount of people on board the boat but they took one man out of the engine room and gave us an extra deckhand to do -- to use. You know to help the engineer in case there was a problem or something.

Q. I understand that but just so we're very clear in front of the jury here, when ACBL took over Valley Line they took a man out of the engine room, is that correct?

A. That's correct.

Q. When the engineers were working for Valley Line during all that time, before ACBL came along, did anybody at Valley Line or any of the engineers come along and say gee, we just don't have enough work why don't you cut us back?

A. Not that I can recall.

Q. You pretty much understood that the two engineers that were working full-time for Valley Line were still keeping pretty busy?

A. Yes.

Q. After ACBL came along, the engineer that was left behind or the -- you have two there that are working and one is removed, there was still the same amount of engineer type of work that needed to be done after ACBL took over, would you agree with that?

[GCMA Comment: Citing 46 USC 8104, the Coast Guard unequivocally states in 46 CFR §15.705 that “The establishment of adequate watches is the responsibility of the vessel’s master.”]

A. Yes.

Q. Now you pretty much stay out of the engine room is that fair to say?

A. That's fair to say.

Q. Nonetheless, you are and remain the captain of the vessel?

A. Yes.

Q. What that means is that you are in charge of the overall safety of all crew members at least under ACBL's policies, is that correct?

A. That's correct.

Q. You know even though you don't go down into the engine room, that the engineers who work under ACBL on the Miss Kae D have had to work more than twelve hours in a day? You know that?

A. Yes.

Q. You also know that often times they are required to work alone without the assistance of another engineer?

A. Yes.

Q. You're not, even though you're the captain of the boat and you do have a tremendous amount of responsibility and authority, you don't have the authority to make Mr. Butch Barras hire more engineers, do you?

A. No, I don't.

Q. That's Mr. Barras' decision?

A. That's correct.

[GCMA Comment: Although the Coast Guard gave the Master the “responsibility” of establishing adequate watches (in 46 CFR §15.705), he clearly lacks the “authority” to do so. Establishing adequate vessel manning requirements should be an important first step in initiating the new vessel inspection process on towing vessels.]

[GCMA Comment: The Coast Guard failed to bring this matter to the attention of Congress and discouraged our Association from doing so for a number of years.]

Q. You're aware that engineers on the Kae D have to sleep in a room that has a loud alarm?

A. Yes.

Q. In fact I think you described it as being very loud?

A. Yes, that's correct.

Q. When there's only a single engineer on board he's responsible for addressing all the mechanical problems even if he happens to be in the middle of a sleep?

A. Yes. Right.

Q. Maybe it's a privilege afforded to captains and I don't mean to -- any disrespect by it but when the captain goes off watch, he's relieved by the person called the pilot, is that

correct?

A. That's correct.

Q. And, vice versa, when the pilot comes off watch, he could go to sleep and you go back to being in charge of operating the boat?

A. That's correct.

Q. When you're operating the boat the pilot can go to sleep and he doesn't need to worry about any steering problems that you may see when there's a tree that's floating down the river towards the barge you have to steer out of the way?

A. That's correct.

Q. The pilot can get sound sleep without being worried about those things?

A. Yes.

Q. That's not the way it is with the chief engineer though, right? Chief engineer, if there's a mechanical problem and there's only one on board, the alarm goes off, he's got to take care of that problem?

A. That's correct.

Q. So often times you agree Captain Jackson that even under your watchful eye, the engineer will to wake up in the middle of his rest to tend to problems on the boat?

A. Yes.

[GCMA Comment: Alarms sounding in Engineer sleeping quarters is a serious problem that must be addressed in any “crew endurance” study presented to Congress as part of the “Demonstration Project” project on Crew Endurance Management Systems as mentioned in §409 of the Coast Guard and Maritime Transportation Act of 2004.]

Q. And that same context Captain Jackson, you agree with me that fatigue and adequate sleep is very important for all crew members, not just for operators like yourself?

A. Yes.

Q. Deckhands, it's important for them to get sleep?

A. Yes.

Q. Fatigued deckhand can cause problems in safety for himself and for others?

A. That's correct.

Q. Same way with an operator, captains and pilots when they get fatigued, problems can happen?

A. Yes.

[GCMA Comment: Section 409 of the Coast Guard and Maritime Transportation Act of 2004 states that: “The Secretary may prescribe by regulation requirements for maximum hours of service including recording and record keeping of that service.”

We ask Congress to require a time clock with suitable regulations to record the hours of service on every towing vessel that operates in excess of 12 hours in any 24-hour period to record such service. At present, actual hours of service are not even recorded or tracked for licensed officers. Without such a requirement, it is nearly impossible to investigate or discover violations.

We further ask Congress to extend this requirement beyond towing vessels to include all commercial vessels under 1,600 gross register tons.]

Q. Being a captain can be very stressful?

A. It's no more stressful than your job or a taxi driver or a airplane driver. I think everything has a certain amount of stress to it.

Q. Yeah. And I don't have any cause to argue with you on that. And along those same lines you would agree that the job of a chief engineer for ACBL is a very stressful job?

A. I couldn't -- I can't answer that truthfully because I don't know. I'm not an engineer so I couldn't say that.

Q. I appreciate that captain and you're being very honest about it. And perhaps maybe too modest because at least you're familiar with the policies and the requirements that ACBL has and what they expect from the chief engineer, is that fair?

A. That's fair. That's correct.

Q. All of the mechanical and electrical operations on board that vessel, if there's a problem, it's the chief engineer not the captain or the pilot whose responsibility it is to take care of that?

A. Yes, the engineer.

Q. If the engineer just like the captain is fatigued and has stress and other problems, it can impair the engineer's ability to do his job properly?

A. I'm sure it could.

Q. And there are great safety consequences that could bear on the mind of a chief engineer when he's fatigued and has all of those responsibilities?

[Objection by ACBL Attorney overruled]

A. Yes, I would agree.

Q. And that consequently, it's fair for you to agree that a chief engineer would have a lot of stress on his job because of the work situation, correct?

A. Yes.

Q. Even though as the captain of the boat, you recognize how important it is that a chief engineer not be overworked to the point that he's fatigued with sleep, with his sleep being interrupted and being required to work an excessive number of hours. You agree with me captain that that company has never asked you as the person in charge of the boat to keep track of the engineers' hours? They've never asked you to do that, have they?

A. No, they haven't.

Q. Now, of course, if the company had asked you to do something like that you would have done it, wouldn't you?

A. Yes.

Q. You keep track of your own hours to the extent that you know that you shouldn't work more than twelve hours in a twenty-four hour day?

A. That's correct.

Q. And if the company had asked you to keep track of an engineer's hours to limit them so that they're not fatigued and so that they can be relieved and have a set period of time where they can take out of their mind all the pressures of the job, you would follow that guideline too?

A. Yes.

Q. But this company never asked you to follow those kinds of guidelines, did they?

A. No.

[GCMA Comment: In 2001 GCMA petitioned to Coast Guard to require logbook entries of work hours. We were told "...the Coast Guard lacks the requisite statutory authority..." Refer to Docket #USCG-2002-12581.]

[GCMA Comment: Our experience shows that the Coast Guard seldom aggressively confronts or investigates work hour violations.]

Q. So you're left with a situation where even though you're the captain of the boat in charge of overall safety, you have a situation where chief engineers are working an excessive number of hours, whose sleep is disturbed and they have a lot of stress. That's the situation, isn't it?

A. Well, no, not really.

Q. Well, that's -- the situation is that could happen out there even though you're not familiar with the engine room goings-on?

A. But you know everyday -- you're making it sound like this everyday, it's a everyday deal. But it's not. You know they don't work more than twelve hours everyday.

Q. I understand that and I don't mean to suggest that everyday they do that. And if I did then I misspoke. But you agree that often times engineers do have to work more than twelve hours in a twenty-four 24- hour day? I think that's what you testified to earlier?

A. Yes, sometimes.

Q. And you agree that under those types of situations that there can be fatigued engineers who has a lot of stress and there could be safety concerns? But under the company's policy you can't limit the engineers' hours?

A. That's correct.

Q. Okay. In that regard, your knowing how an engineer can be fatigued when his sleep is interrupted by alarm, the company has never asked you to keep a record of the number of times that a vessel like the Kae D has had her alarms go off, have they?

A. No, they haven't.

Q. If they had asked you to do that, you would have been more than happy to do that, wouldn't you?

A. Yes. But the only way I could have done that was with the assistance of the engineer.

Q. Sure. You could ask him?

A. Right.

Q. To make sure to keep a record of all the alarms so you can show it to Mr. Barras?

25 A. That's correct.

Q. You could have done that. And you knew that there were often times that these alarms would go off; sometimes they were false alarms?

You knew that that happened on the Kae D?

A. No, I didn't know that.

Q. Because that was down in the engine room and that wasn't your part of the business?

A. Right.

Q. All right.

A. We also have almost a similar alarm in the wheelhouse and the pilot house as they've got. And if they're getting false alarms down there, a lot of times we're getting them in the wheelhouse. So the pilot would have told if there was a false alarm; if I was on watch, I would have heard it.

Q. But when you're asleep in the captain's sleeping quarters there's no such alarm box, is there, like you have in the chief engineer's room, is there?

A. No, not in our quarters.

Q. So you have the benefit of not having your sleep interrupted by these loud alarms, is that correct?

A. That's correct.

Q. Captain Jackson, you're familiar with the company's policy manual, in particular, what we've marked as Plaintiff's Exhibit Number 4 Thirty-three, ACBL organizational chart. Have you seen that before sir?

A. Yes.

Q. And by company rule, you're required to be familiar with all the company's policies and practices?

A. Somewhat. There's no way that I could remember everything. It's used for a guideline.

Q. Fair enough. On the company's organizational operations chart you're up here, the crew is down below you and the boat engineers are at the bottom, is that correct? You agree with that, Captain Jackson?

[ACBL attorney objection overruled.]

A. I was always lead to believe that it was the captain was in charge and then the engineer, the chief engineer was second in charge and the crew was on the bottom of the list instead of the captain, crew and the chief engineer. That's always been normal for thirty something years on the boats.

Q. That's what you personally feel. Obviously the company feels differently, right?

[ACBL attorney objection to form of question sustained.]

Q. You were the captain on the boat when Gary Duncan died?

A. Yes.

Q. You understand that Gary Duncan had been working on that boat in service for ACBL for twenty-four consecutive days?

A. Yes.

Q. He had been working for fifteen of those days by himself without another ACBL engineer on board, is that correct?

A. That's what I was told, yes.

Q. He was required by the company policy to work a minimum of twelve hours the forward watch, the captain's watch, is that correct?

A. Yes.

Q. You were on board and you were actually operating the vessel I believe at the very moment Gary Duncan died?

A. That's correct.

Q. Captain Jackson, you recall receiving a phone call from Brad Barton who was with Gary during that time telling you that they were gonna take a break because Gary was having some problems?

A. No, that's not correct.

Q. You recall receiving a phone call before Gary died from Brad that they were going to take a break?

A. No. Gary called me.

Q. Gary called you to let you know that they were going to take a break?

A. Yes.

Q. Okay. Maybe I misunderstood it when I reviewed your testimony earlier but that's fine. You at least knew that some period of time before Gary died that he and Brad were taking a break from the work that they were doing, correct?

A. That's correct.

Q. And is it fair to say too that that was the last time that you ever heard from Gary?

A. That's correct.

Q. He died ten to fifteen minutes after you last talked to him?

A. Approximately.

Q. So it was ten to fifteen minutes after he had called to let

you know that they were going to take a break from the work in the engine room until the time that you got the next phone call from Brad to let you know that Gary had died or was having some serious problems?

A. It was approximately ten to fifteen to twenty minutes from the time that I had talked to Gary until Brad had called me and told me that Gary had fell out in the engine room.

Q. You understood that the work that Gary had been doing along with Brad when he first called you was a physical job of removing a power pack?

A. Yes.

Q. Now getting back to the company's policy, would you agree that under the company's policy that constant vigilance and planning is important to prevent casualties?

A. Yes.

Q. That's a stated policy statement, section 3.1?

A. That's correct.

Q. And what that means is that through constant vigilance, constant planning those things are important that casualties can be prevented?

A. That's right.

Q. After a casualty like this death happened, at least according to the company's written policies, there's suppose to be an investigation or a root cause analysis, a fact-finding mission so to speak so that the company can try to learn what happened and try to prevent similar things from happening to the extent they can?

A. That's correct.

Q. You agree Captain Jackson that a casualty like a heart attack like Gary Duncan had should be investigated as a work -- to see if there's a work hazard associated with that death?

A. Yes, I would agree with that.

Q. Even though you agree with that personally and I agree with you, is it true that the company never trained you on how to do that type of investigation?

A. That is correct.

Q. That is correct?

A. They never taught me how to do that.

Q. And again, if they had trained you to do it, you're under an obligation to follow their Instructions?

A. Yes, that's correct.

Q. Captain Jackson, you were in this wheelhouse operating the vessel for almost all hours that you were on that boat except for when you're in the galley or sleeping, correct? You spent very little if no time or if any time down in the engine room?

A. No time in the engine room.

Q. So you agree that during the days, even the weeks leading up to Gary Duncan's death that you were not personally familiar with the conditions down in the engine room?

A. That's correct.

Q. You also did not have any personal understanding of what the temperature conditions were or what the ventilation system was because you hadn't been down there?

A. That's correct.

[GCMA Comment: The "two-watch" system on a vessel in 24-hour operation can effectively prevent a Master from adequately supervising the operation of all areas of his vessel's operation and still be on duty only 12 out of 24 hours as required by 46 U.S.C. 8104(h). This makes a "three watch" system and adequate supervision a

necessity in future manning considerations.]

Q. You don't know whether or not Gary Duncan had been fatigued and overworked and under-rested during that period of time?

A. He -- you know I saw Gary sometimes two or three times a day and he never showed any sign of being tired or run-down or anything prior to this. You know I'd see him every night except for the night before he died. I saw him every night when he came up to bring fuel reports. And then I would see him at mealtimes, at least twice a day. And then I would see him a lot of time in the afternoons when I would get up and go through the lounge and he would be sitting in the TV lounge watching TV.

Q. Well Captain Jackson after Gary Duncan died, you understood that first of all that Brad Barton had been working with him and had been on board the boat for about twelve or thirteen hours?

A. That's correct.

Q. And when there's a an additional engineer brought on board, there's a practice and a policy that they're suppose to exchange information with one another, correct?

A. That's right.

Q. And so you would have expected that Gary Duncan, if he was having any such problems with the engine room or with fatigue or with sleeping problems that he would have communicated those things to Brad Barton at that time?

A. At this time and also myself.

Q. Okay. But since you're not down in the engine room you will at least agree that Gary would have at least under company practice communicated those types of important things to Mr. Barton?

A. Yes.

Q. After Gary died, you said that you didn't do the investigation that the company and that you believed now should have been done. So what I want to ask you is, isn't it true that after Gary died that you did not ask or investigate whether or not Gary, in fact, had been fatigued, tired or overworked? You didn't ask those questions?

[ACBL objection to the form of the question was sustained.]

Q. Captain Jackson, is it fair to say that you did not make any inquiry or investigation into the amount of rest that Gary Duncan had had prior to his death?

A. Who could I talk to?

Q. You could --

A. I -- I -- to do an investigation you would have to talk to somebody that was familiar with the situation, what happened and the only person that I could have possibly talked to was Gary or Brad Barton and you talked to Brad about it.

Q. Okay. Well, do you remember when I asked you this question at your deposition, four or 5 months ago which obviously is closer in time to the date that this happened. The question that I asked you was the same question, "Is it fair to say that you did not make any inquiries or investigations into the amount of rest that Gary Duncan had had prior to his death?" And your answer was "No, I didn't."

A. Into his rest, no, I didn't.

Q. Okay.

A. I had no call to inquire about the amount of rest he had because it was my understanding they was gone have the night off before they changed the power pack out the next day.

Q. But you didn't ask Brad either because the company didn't train you on asking questions about these kinds of circumstances? You didn't ask Brad whether or not when he got on board Gary Duncan was fatigued, stressed out, looked like a zombie or anything along those lines to determine whether or not his work situation contributed to cause his death?

A. No, I didn't.

Q. By the way Captain Jackson, you knew Gary Duncan for a while? You worked with him when he was at Valley Line?

A. Yes.

Q. You're familiar with Gary Duncan's work practices and his qualifications as chief engineer?

A. Yes.

Q. As you sit here, as you told me before, you don't believe that Gary Duncan did anything wrong to cause his own death, do you?

A. I don't think he did, no.

Q. I don't either. Thank you.

**TESTIMONY OF CHIEF ENGINEER
BRAD BARTON**

[Source: Direct examination testimony of Chief Engineer Brad Barton given in the Circuit Court of the City of St. Louis, July 15-26, 2002 in The Estate of Gary Duncan, Plaintiff, vs. American Commercial Barge Line. Edited for clarity from the court transcript, pgs.107 through 205.]

BRADLEY B. BARTON being duly sworn by the deputy clerk, testified as follows:

MR. WOLFF: Thanks Judge. Would you please state your full name in open Court?

A. Bradley Bennett Barton.

Q. Where do you live sir?

A. ■■■■.

Q. And how old of a man are you?

A. Forty-one.

Q. Brad you were the only man that was present with Gary Duncan at the time that he died in May of 1999, is that correct?

A. That's correct.

Q. Are you familiar with the working conditions that existed on the Miss Kae D vessel owned or operated by ACBL during the first half of 1999?

A. I am.

Q. Are you also familiar with ACBL's company practices and policies as it respects the operation of that vessel?

A. I am.

Q. You're appearing here today pursuant to a subpoena, correct?

A. That's correct.

Q. Notwithstanding the fact that you have a subpoena are you appearing here voluntarily?

A. Yes.

Q. I want to be clear. Have you talked with me on a few occasions to answer my questions about what those working conditions were and the circumstances surrounding Gary's death?

A. Yes, that's correct.

Q. Have you also spoken to the company's representatives on

a number of occasions to discuss those matters?
A. Yes, I have.
Q. Including immediately after Gary's death?
A. Yes.
Q. Have you also given statements to the private investigator for the law firm that represents this company?
A. Yes, I did.
Q. How many years, Brad, have you been in the maritime industry?
A. Approximately seventeen.
Q. Can you give the jury a description of your background and your experiences and your qualifications in the maritime industry?
A. Seventeen years in the engine room and approximately eleven as chief engineer.
Q. What company's have you worked for?
A. Tolen Marine. Of course, American Commercial Line, Midland; Memco.
Q. And all those years been spent working in the engine room of motorized vessels on the river?
A. All but about two, I did deck (work).
Q. Very good. Currently who are you employed by?
A. Midland Enterprises.
Q. What do you do for Midland?
A. Chief engineer.
Q. How long have you been working for them?
A. Oh, approximately a year.
Q. Do you have any licenses, certification or training or education in your field?
A. Yes.
Q. Can you tell the jury what those things are?
A. Two. Hold two. I've got a unlimited horsepower license. Designated Duty Engineer's license assistant and I got a merchant mariner's ticket.
Q. You have brought with you to Court today with you a binder? What information is in those binders?
A. It holds those licenses and letters of recommendations of companies I worked for.
Q. Do you have a letter of recommendation from ACBL?
A. Yes, I do.
Q. You worked for ACBL on a couple of different occasions, is that correct?
A. That's correct.
Q. I have from my notes here that you worked there from about 1995 to about 1998, is that right?
A. Yeah.
Q. Can you tell us what position you worked in for ACBL at this time and what your job duties were?
A. Chief engineer there the entire time that I worked for ACBL.
Q. Did they assign you to work on more than just one vessel?
A. Yes, I worked off different boats. Was that what you're saying?
Q. Sure. I understand that you left that company in 1998. Can you explain to the jury why you left?
A. Yes, I did. They were the only company that was working 40/20 which is six weeks on; three weeks off work schedule. And I got tired of working that schedule and got offered less work, actually less days and actually better working environment; that's why I left.
Q. Did you ever approach the company's officials to ask them if they would reduce the amount of the forty day hitch

that you had to work?
A. Talked to Paul Warren about it ó my immediate supervisor.
Q. What did Paul Warren say to you in response?
A. Said he couldn't do it.
Q. Paul Warren is the supervisor for the engineers for the company officials; he can make binding admissions on the part of the company.
Q. Mr. Barton are you familiar with Paul Warren's job responsibility in respect to supervision?
A. Yes, I am.
Q. What's his role?
A. He was actually my immediate supervisor. He worked under Butch Barras.
Q. Did he supervise all engineers, chief engineers, assistant engineers and trainees?
A. I think he shared that with Butch. But he's the only one I dealt with. Very seldom did I deal with Butch.
Q. Was he your supervisor in regard to if he told you to do something you had to do it?
A. Yes, sir.
Q. What did he tell you when you asked him if you could work fewer days?
A. He said he couldn'tí .
Q. í Can you tell us what Mr. Paul Warren told you after you had asked him if it would be possible for you to work less than forty days at a time?
A. He did say he'd like to give me 30/20. Said he couldn't do it. í
[Skip to Transcript page 117. Skip covers the period when Mr. Barton left ACBL to work on a casino boat.]
Q. At some point and time in the next year or so did you get a call back from Paul Warren asking you to come back to the company?
A. Yes. We continued to talk because we were also friends. And he said I might can give you a 30/20 work schedule and I said let me know. So we talked to each other from time to time and he said if you want to come back I can do it. He said if you want to come back, I can give you a 30/20.
[Objection by ACBL Attorney sustained.]
Q. Mr. Barton, in addition to Paul Warren promising you a better schedule, did he make any offer with respect to giving you assistance?
A. Yes. He told me I'd probably ride a bigger boat but he had said he would keep a trainee on at all times.
Q. What happened when you got back to ACBL? What kind of policies and practices did they have?
A. They started off honoring the 30/20 and keeping the trainee on. That didn't last very long. I was riding by myself a lot.
[GCMA Comment: Non-union workers like Mr. Barton are "employees at will" without the benefit of working under an enforceable written contract.]
Q. What vessel were you assigned to when you got back to ACBL?
A. The Miss Kae D.
Q. Okay. Were you familiar with that vessel before you got assigned to it?
A. I'd heard of it; seen it but I'd never rode it.
Q. From your past employment experience with ACBL were

you familiar with the Ms. Kae D's reputation?

A. Yes, I was.

Q. What was that?

A. Just that it was a junk. It was a piece of junk really. One captain in particular that rode, Captain Mike Lester on the Dennis Hendricks had made the comment that -- when they bought

[Objection by ACBL Attorney sustained by the court.]

Q. You said that you're familiar with the reputation of the Miss Kae D. What was the reputation of Miss Kae D?

A. That she broke down a lot.

Q. Did she have a nickname?

A. Ms. Crash D.

Q. What I have up here is Plaintiff's Exhibit Number Three. Do you recognize that as a accurate photo of the Ms. Kae D?

A. Yes.

Q. That the general condition that she was in the time that Gary Duncan died?

A. Yes.

Q. What was the relative size of that boat compared to other boats at ACBL?

A. She was a nine thousand horsepower. She was triple screw which means she had three propellers. About a hundred and ninety-five foot long. I'm not exactly sure of the width.

Q. So it had three engines to run those three propellers?

A. That's correct.

Q. And as you see on Plaintiff's Exhibit Number Two, you see those big exhaust stack fans there?

A. Uh-huh.

Q. What were those for?

A. For taking heat and exhaust, you know, out of the engine room.

Q. And is this a fair and accurate view, what I've marked as Plaintiff's Exhibit Number One, of the rear of the --

A. Yes, that would be the stern and the bow.

Q. Maritime, the stern is the back and the front of the boat is the bow?

A. Yes, that's correct.

Q. Are you familiar with the layout of the Miss Kae D on the inside?

A. Yes, I am.

Q. We've got these blueprints here that were produced to us in this case. This one is marked Plaintiff's Exhibit Number Four. Do you recognize this as the layout of the Miss Kae D?

A. Yes, I do.

Q. Up here at the top and the jury can take a look at this when they have a chance but is that a layout of the three engines of that boat?

A. Yesí .

Q. What kind of engines were they?

A. EMD. Stands for electric motive division.

Q. Are those the same types of engines that they used on railroad locomotives?

A. This is correct. That's what they were intended for in the original design.

Q. According to the particulars over here, it says size (one) hundred and ninety-five feet in length. Does that refresh your recollection?

A. Yes.

Q. Also says that this plan was designed in the early 1970's, is -- is that your understanding?

A. Yes.

Q. You recall what the fueling capacity was on this boat?

A. It's around two hundred thousand gallons but I'd have to look. Two hundred and fourteen thousand gallons.

Q. Even though it carried two hundred and fourteen thousand gallons of fuel, if you were working on this boat for forty days in a row, twenty-four hours a day of operation, did that boat require refueling during those hitches?

A. Yes, it did.

Q. Plaintiff's Exhibit Number Five is the second page of the design plans. Do you recognize those?

A. Yes.

Q. Does that reflect the layout of the sleeping quarters as this vessel was originally designed?

A. Yes, this here would be -- I'll say yes. Make it yes, it isí .

Q. How many engineers' sleeping quarters were designed for this vessel?

A. Two. Two rooms.

Q. Do you recall how many beds could fit into the engineer's room and how many beds were there in the chief engineer's room?

A. One bed in the chief's room when I was on there and then two in the assistants' rooms. They were bunksí .

Q. We're going to watch a videotape here in a second, Brad, to show the actual layout. But I've had marked as Exhibit Number Ten, some photos taken on the date that we went to do an inspection. Do you recognize those photos?

A. Yes, I do.

Q. Can you tell the jury what those photos show?

A. That's one of the main engines. Looks like the center main engine. That sets the power to start the starboard. That's the front of one of the main engines which is called the accessory end.

Q. Looks like there's a -- one of the workers back there. Does that give you a sense, proportion and size of those engines?

A. Yes. That's just one part of one room on the boat. The lower engine room.

Q. What other rooms are there other than the engine room which are the responsibility of the engineer?

A. You got the main deck which is above the engine room. It's the same square footage. You've got the fuel tank room. Shaft alley which is about be one, two, three, four, be about seven compartments. You've got a large tool room; a large parts room. You've got an incinerator room. We've got a rudder room. Then you got the control room and generator room all to keep up, monitor the equipment and all the cleaning to do.

Q. What percentage of this entire size vessel was engine room or engine components?

A. Approximately two-thirds.

Q. And how many people did ACBL regularly crew to handle the two-thirds of the size of that boat?

A. There was suppose to be two but a lot of times it was just myself or Gary.

Q. Exhibit Number Eleven. Let me ask you first Mr. Barton, if you recognize that?

A. Yeah. Was my bedroomí .

Q. Is that a photo, this Exhibit Eleven is that a photo of the chief engineer's bedroom?

A. Yes. The top picture is the bedroom. The bottom picture is the alarm box which woke me up all the time.

Q. Is this the same room that Gary Duncan slept in?
 A. Yes.
 Q. Except when the two of you were on board at the same time I guess?
 A. Right. One of us stays in the assistant's room.
 Q. Can you explain what this box is here and what the purpose and operation of that thing is?
 A. It's an alarm buzzer that would go off if the alarm went off in the engine room. So if you were asleep, it go off and wake you. It's rather irritating. Rather --
 Q. What kind of noise did that buzzer make?
 A. You actually want me to do it? Bang. Real loud. I thought it was more of arrrr (Phonetic).
 Q. Were you allowed under any authority to disconnect that box ó
 A. No.
 Q. -- to allow you to get sleep?
 A. It would have been unsafe.
 Q. Under what circumstances did that alarm go off when you worked on the Miss Kae D?
 A. A lot of different reasons. You'd have false alarms. If the captain pulled the engine back real quick. A lot of false lube oil alarms. You get up and go downstairs and silence it. All it would really do is just interrupt your sleep. If you had any kind of component failed or a level -- level -- oil level temperature. It went off for a number of reasons. It went off a lot.

[GCMA Comment: Engineers must answer false alarms, check the alarmed condition, silence the alarm, and make any necessary repairs or adjustments – any time of day or night. Some, but not all, conditions alarm in the pilothouse. Alarms can be audible, visual or both.]

Q. Was there ever a situation in your other work experiences where you had another engineer to relieve you and take over the watch?
 A. No. Not a competent one. Not another chief.
 Q. I'm talking about other than ACBL.
 A. Oh, yes. Where I work now.
 Q. Where you work now are you allowed to sleep through without being interrupted by those alarms?
 A. Certain alarms I can; certain I can't. I do have the same man on board and I can train him and he can take care of a lot of the stuff.
 Q. Even though the alarm may sound and wake you up, can you go back to sleep trusting that the other engineer whose on board can go ahead and take care of the problem?
 A. Oh, definitely. Definitely. On the boat I'm on now.
 Q. Did you ever have that situation where you could go back asleep and rest assure that one of the trainees that ACBL put on board with you could go handle those problems?
 A. Sometimes, but it wasn't very often.
 Q. What was the purpose of putting a trainee on board with you?
 A. Well, to train him where he could help me, you know, take the stress off of you. I never had the same trainee all the time.
 Q. That pose any problems for you as far as getting the work done?
 A. Well, when you got him halfway understanding the particulars of the boat he was gone to another boat; had to

start over. A lot of times you're having to get out of bed because this man doesn't know what's going on, if you had him at all.

[GCMA Comment: Providing the same trainee voyage after voyage provides some continuity in “on the job training” (OJT). Providing a parade of minimally trained people burdens rather than a helps an overworked engineer.]

Q. Under company policies were these trainees that they occasionally assigned to you to train, were they qualified to operate the engine room without your supervision?
 A. Maybe one out of all I had I trusted that way.
 Q. Okay. Do you know a man by the name of ■■■ ?
 A. Yes, I do.
 Q. Did you have an opportunity to try and train him?
 A. Yes, I did.
 Q. Did you evaluate him and his ability to provide assistance to you as a chief engineer?
 A. Uh-huh. I did.
 Q. He also tried to get some training from Gary Duncan about fifteen, twenty days before he died?
 A. That's correct.
 Q. What was your opinion about the competency at this point and time of ■■■ as a trainee to assist the chief engineer?
 A. I couldn't trust him. He couldn't follow simple directions. And I worried about what he was doing while I was in bed. Basically, I told him just don't touch anything, just wake me up if something happens.
 Q. And that's not to say that maybe Mr. ■■■ couldn't get some additional training down the road and be competent, but was it your opinion at this time during the month that Gary Duncan died that he wasn't competent?
 A. Not only mine but the captain's.
 Q. Captain?
 A. We had a couple of discussions about it. Captain James French.
 Q. Incidentally with that boat, during the period of time that you worked on it in 1999, did they try to operate the Miss Kae D twenty-four hours a day?
 A. Yes.
 Q. Did they expect you, when you were working as a chief engineer, to keep the maintenance and mechanical attention up to allow it to be operated twenty-four hours a day?
 A. Yes.
 Q. Could you schedule all of the work that you had to do as a chief engineer?
 A. No. There's no way.
 Q. Did they assign you a watch when you worked for ACBL?
 A. It was suppose to be the forward watch.
 Q. What were those hours?
 A. 6:00 to 12:00. And then again 6:00 in the evening to 12:00 at night.
 Q. When the company assigned you a watch, did they expect you and did you work those twelve hours everyday?
 A. I did, yes.
 Q. Is it your understanding that on those times that you worked with Gary, in your experience with him, that he, like other chief engineers, worked those forward watch hours?
 A. Yes.

Q. In addition to those assigned hours, in your personal experience were you often times called upon and awakened at night to work extra hours over twelve?

A. Yeah. You had no choice. On that boat, you had no choice.

Q. How many -- you didn't have a choice?

A. Well, the fuel flat a lot of times would come a lot times after you went to bed or you lay down. And as soon as you lay down, it seems like sometimes a alarm would go off. You get up, change a power pack which took six hours, you got done; if you didn't have a trainee you had to stay up and make sure the equipment was all right and safe. And, then next thing you knew you put eighteen hours in.

Q. With respect to the fueling operations, were there company's safety rules that you had to follow to make sure that fuel didn't spill into the river and cause pollution and environmental damage?

A. Yeah, that's correct.

Q. So what kind of steps did you have to take to prevent that from happening?

A. One of the main safety rules, company policies -- rules was to be awake and know what you're doing. Know what you're doing. So if you just went to bed and you worked six hours or stayed up; you got up 3:00 o'clock in the morning to take on fuel, you know, you down half a pot of coffee. So you had a big responsibility. You didn't want to have a spill.

[GCMA Comment: Uncompensated disruptions of a mariner's circadian rhythm by random changes of schedule is a serious problem that must be addressed in any "crew endurance" study presented to Congress.]

Q. As a result of these work conditions, did you ever experience fatigue?

A. Oh, yes.

Q. Was that a common thing for engineers who had to work without the regular assistance?

A. Yes, I'd say so.

Q. Regarding the fueling operations, Mr. Barras suggested a little bit earlier today that you could get help from the deckhand to do that.

A. No deckhand wasn't qualified to fuel a boat.

Q. Did you have certain tanker qualifications or other types of qualifications to do that work?

A. The minimum requirement for uninspected towing vessel which is what that vessel fell under were a PIC card. Deckhands didn't hold that card.

Q. You have that card?

A. Yeah, it's right here in that book.

Q. Plaintiff's Exhibit Number Thirty is ACBL's policy ten point one. You recognize that as the oil transfer policy?

A. Yes, it's part of it.

Q. Was that part of the refueling operation that you had to follow these policies?

A. Yes.

Q. And without going into any detail, is it fair to say that that policy consisted of several pages?

A. Yes, it did.

Q. Including compliance with United States Coast Guard requirements?

A. Yes. Yeah, that's correct.

Q. Was that an operation that required you to be attentive

and alert?

A. Oh, yeah. Definitely.

Q. Could you schedule your work so that you could be well-rested to receive the fuel on board these vessels?

A. No. There was no way to predict when you were gonna be taking on fuel. You may work and about the time you get off watch, the fueling flat show up. Sometimes fueling took four or five hours. And, although sometimes they could try to give you some idea when the fuel flat was coming alongside. And this is kind of like the way I envision what they do in the air, in the movie, where they refuel a airplane while they are moving. They do the same type of thing on the boat. The problem with fueling and the ETA's, you would plan for a boat to run a certain speed for so many miles and be at the bottom of the lower Mississippi. It really has a tight hairpin (bend in the river) when you're northbound. You don't have the right of way, the southbound boat does. You get up in a bend, you're required to hold up if there's four or five boats coming down; you have to sit there and wait until they pass and you go on up which it throws off your ETA, the time you're going to take off fuel; when you're going to be in another town.

Q. You understand the boat was going north, upriver during the time that Gary Duncan was on board before he died?

A. That's correct.

Q. You've reviewed some logs and you recall Gary having to do refueling operations during his off watch hours?

A. Yes.

Q. And you say that typically takes about four additional hours?

A. See, again it depends on how much fuel you take. If you take twenty-five thousand gallons, it could take an hour or two. But you had fuel, lube, water, gas drums; sometimes supplies. It depends on what you were getting and how much. But for the most part, it usually took me three or four hours cause you took off fifty, sixty (thousand) gallons of fuel.

Q. Mr. Barton with respect to the twelve hours, the six on; six off. Six on hours that you were regularly scheduled for, did you have certain daily activities that you were required to perform?

A. Yes, that's correct.

Q. Were those spelled out in some of the company's policy manual pages?

A. Yes.

Q. We're not going to spend too much time on it but I have Exhibit Twenty-two which is titled Planned Maintenance Schedule ó Monthly. Is that a list of the monthly things that had to be taken care of on this boat?

A. Yes, it is.

Q. I got this kind of backwards but this is Exhibit Number Twenty-one. Is that a list of the weekly regular maintenance requirements that you had to take care of on the Miss Kae D?

A. Yes, that's correct.

Q. This is what I was looking for originally. But Exhibit Number Twenty, is that a list of the daily maintenance requirements for this vessel?

A. That's correct.

Q. Mr. Barton, was it important to fulfill those maintenance obligations on a regular scheduled basis?

A. Yes, it was. When you're running equipment that hard it's important that you follow that.

Q. What's the risk if you fail to do your job?

A. Well, if you didn't, some of that equipment would fail. You could potentially cause a piece of equipment to fail if you didn't maintain it like you should.

Q. What happens when mechanical equipment in the engine room fails as it represents to the operation of the vessel?

A. It -- depending on the severity of the repairs, you had to get up and repair it.

Q. What happened if you were unable or failed to do your job and maintain the vessel as far as the vessel's operation from the captain's chair?

[Objection by ACBL Attorney overruled.]

A. Okay. If you didn't do your maintenance, you didn't do your job. You weren't going to have a job. You were required to do what was on these lists also.

Q. Mechanically speaking, if you didn't maintain the lube oil level are you aware of what could happen to the main engine?

A. Sure. You would burn it up.

Q. What happens if the main engine burns?

A. Depending on where you at, you could have a bad accident, hit a bridge; sink the boat. You need all three engines with the kind of barges you were pushing.

Q. Do you recall ACBL's eight point two policy regarding engineers responsibilities?

A. Yes. It's been a while since I looked at it but I recall it.

Q. Plaintiff's Exhibit Number Twenty-three, Twenty-four, and Twenty-five. Does that set forth as well, some responsibilities that the engineers had to perform?

A. Yes, that's correct.

Q. Does it also list some of the systems of the engineering department and its components?

A. Yes, it does.

Q. Exhibit Number Twenty-five talks about the engineering spaces and things that engineers for this company are required to do on a regular basis, is that correct?

A. Yeah, that's correct.

Q. And in addition to attending to the mechanical components of this vessel were you required to keep it clean and try to keep it free of oil and slipping hazards?

A. Yes.

Q. Were you required to paint the engine room?

A. Yeah and it was in dire need of it.

[GCMA Comment: Painting and cleaning the engineroom are important and time-consuming parts of an engineer's job in addition to machinery maintenance and repair.]

Q. Incidentally, were you familiar with the company's engine room watch standards?

A. Yes, I was.

Q. Rule seven point three says among other things that "The engineer stands a watch generally at the same time as the captain. While the engineer has no one to relieve nor is relieved by anyone, the engineer must start or starts each watch with a series of visual inspections and log readings." Was that consistent with the actual practice out there?

A. No. You had to work more than that.

[GCMA Comment: ACBL policy recognizes that many engineers do not have a relief on 24-hour boats. There is a glaring deficiency in law and regulation that allows such a situation to exist. We ask Congress to address this deficiency.]

Q. How about with respect to being relieved?

A. A lot of time you didn't have anybody on there to relieve you. That was the problem.

Q. Mr. Barton, do you recall reviewing a videotape that was done during an inspection by Captain Disler of the Miss Kae D?

A. Yes, I do.

[The judge resolved problem with the volume of sound on the videotape played for jurors. The volume of sound from engineroom noise apparently provided an unacceptable distraction in the court room.]

Q.. Brad, we're trying to get this sound level adjusted properly but before I turn it back on, can you describe in your own words what the volume of the noise was coming from the engine room is when you were in the chief's bedroom?

A. Yeah. You could hear it; some of it constantly.

Q. Is that volume louder as you get closer to the engine room?

A. Oh yeah, definitely.

Q. And is it loud in the control room even behind the window?

A. Yeah.

Q. You have to wear hearing protections while you're in that area?

A. I did in that control room. It wasn't insulated very good. It wasn't soundproof.

Q. With the noise up in the sleeping quarters, did that sometimes cause difficulty in going to sleep?

A. Sometimes.

Q. Something that you got use to?

A. Yeah, you do get use to it.

[GCMA Comment: In the sleeping quarters of some towing vessels, the engineroom noise is so pervasive that crewmembers must wear foam hearing protectors to get to sleep. Other vessels vibrate so badly that, at times, sleep is impossible. These conditions need to be attended to as a part of any Coast Guard vessel inspection program.]

Q. Okay. What we're going to do is we're going to show this videotape. As we go along, I will ask you to identify the various components that you're seeing.

A. Okay. That would be the control room.

Q. What we'll do, we'll keep the sound level down not suggesting that it's the right volume or not.

A. Those are various gauges for monitoring the equipment. Pressure gauges, temp gauges. Excuse me. Temperature gauges. That's the water fountain over there in the corner. Those are motor air valves. I'm sorry. They were for testing, you know, various tests on the engines. Again, alarm box paneling. Alarm box panel. And you're back on the control consol. Again, that's a window.

Q. Incidentally, Brad let me stop you. How much time did you actually spend in the control room during your regular twelve hour duties?

A. I probably spent a total of a hour and a half. I stayed down in the engine room unless it was real hot. I'd come in there for fifteen minutes or so.

Q. Based on your experience with Gary Duncan, do you know what his practice was?

A. He stayed in the engine room a pretty good bit.

Q. All right. What do we see here?

A. You're looking at the lube oil pot which is basically a giant oil filtration system for the engine. Fuel valves for all the fuel tanks. You had twelve foot tanks. Six on each side. That's a fuel alarm system when you taking on fuel. It's not used anymore. It doesn't work. It keeps you from having a spill. That's the front of the port main engine. A little bit of shot of the center main engine.

[GCMA Comment: Generally speaking, when a vessel comes under USCG inspection, inoperative equipment not required by regulation must be repaired or removed.]

Q. This is only one part of the lower engine room, correct?

A. Yeah, that's just one area in that engine room.

Q. There are rooms either to the front or to the back?

A. There's a small one to the front; there's a large one to the back. That's divided up into, I believe, seven compartments. Go all the way, you get to the end of the shaft alley. Center engine, again. Okay. You're looking at the starboard main engine. That's the starboard side engine. You're looking at the front of the engine. The head of the boat or the bow of the boat. This direction. That's the catwalk that you get up on to work on the center main engine. It's up higher than the other two.

Q. Did you often times have to do maintenance inspection and repair of all three of these engines?

A. You did a lot of repair. A lot of the same components. There's power pack assembly which takes about six hours to change that. You had a lot of that going on in there.

Q. The main engine inspection and repair on these three engines comprising the engine room of this boat any way similar to that of the maintenance on a automobile?

A. No. No. No. This is not like you do it once in a while and it last a long time. This maintenance had to be done quite frequently. These engines run 24/7. They run all the time. And when they get so many hours on them, they are brought in for overhaul.

Q. What about when you were working on one engine, what was the custom and practice of ACBL as far as docking the boat and doing repairs as opposed to keeping the boat moving?

A. Well, that's the object. I mean that's all tow boaters agree that's the main thing. Keep the boat going, that's it, when you're making money. You're not moving, you're not making any money.

Q. So what is the temperature like when you're working on engines or an engine while the other two engines are operating?

A. It varies. Depends on the season. It's not too bad on you in the wintertime. Summertime, pretty rough. Hundred twenty, hundred forty. Some engine rooms, hundred and sixty (degrees F). Just varies. Again, you're still looking at the same views over and over. In a way, this film doesn't do justice. It shows you the lower engine room. There's an upper engine room. That's just about the same area footage. Again, there's a lot more to this engine room. This is just -- just a part of it. What you're looking at now is the shaft. That's a reduction here in front of it. That there the best way I know to put it. That's a giant transmission like you have in your car. That shaft turning goes out to the watertight sealing. That's where your wheel is. You call, if you were bass fishing, your propeller. And you have three of those air intakes. Is where the fresh air supply to the turbo. This is a

turbo-charged EMD engine. You have turbo and blower. This particular type is turbo. Right in front of that, that's exhaust. It's like the tailpipe on your car.

Q. I see a fan in this picture. How much relief did those kinds of fans provide?

A. Those little fans didn't do much good. They were added when I was on there. There was three of them added. They just weren't strong enough to do any thing.

Q. Were those added at your request?

A. Yes, they were. I actually mounted them myself. Made the mounts and welded them in. Again that's the shaft.

Q. Did you have to do mechanical work or maintenance work on the shaft?

A. No, not much. You have oiling and greasing you have to do which is part of those regular maintenance duties that were outlined in the some of the diagrams you showed.

Q. Is it fair to say, Brad, that all of this, all the mechanical components, that would -- that it's pretty easy to fill up a twelve hour day?

A. Oh, yeah. On a boat that size and a boat in that condition. The problem, you have a repair and you get behind in your regular duties. It's hard to stay on top of that much boat especially when you don't have anybody on there with you. Again, that's back in the control room.

Q. I should probably stop it now. Given the period of time, Brad, that you worked on this boat in 1999, which was what approximately six to eight months?

A. Yes.

Q. What was your opinion of the mechanical condition of the Miss Kae D during that period?

A. Not very good.

Q. Do you have an opinion as to whether or not the Miss Kae D was seaworthy during that time given the amount of staffing and its operations?

A. Not -- not in my opinion.

[Objection by ACBL Attorney. Directions given by the Court. The proceedings returned to open court.]

Q. Mr. Barton, I'm going to shift gears and we're going to come back to your opinions a little bit later.

A. Okay.

Q. What I'm interested in asking you about now is having an understanding that you worked on this vessel for several months during the year of 1999 before Gary Duncan died, did you have some occasion to overlap a few days with him to become familiar with his work practices?

A. Yes. That's correct.

Q. Did you also have an opportunity as well as an obligation to exchange information with him when you or he came on board the vessel?

A. Yes.

Q. During the course of those exchanges before the date of Gary's death, did you ever note any signs of fatigue on Gary Duncan?

A. Yes.

Q. Can you describe and I want to not talk about the May 31st and May 30th time period but going back to the earlier time periods, the beginning of the year, can you describe to the jury what kind of signs of fatigue you saw in Gary Duncan?

[Objection by ACBL Attorney overruled.]

Q. Prior to the last trip that you had with Gary Duncan, can you describe what you saw on him in the ways of fatigue?

A. Yeah, he was haggard; tired. I don't know if it was appropriate or not, he looked like a zombie to me. That's the best way I know how to put it.

Q. When you came on board during those times, had Gary Duncan been working by himself for substantial periods of time?

A. At times he had.

Q. Same with you?

A. Yeah.

Q. Was that the common practice at this time that there was a significant period where the chief engineer was required to work by himself?

A. Wasn't supposed to be.

Q. Let's jump forward to the day that you got on the boat on May 30th, 1999, the day before Gary died. Did you receive a call from Paul Warren to come back aboard the vessel?

A. Yes, I did.

Q. Was that a surprise for you to get a call at this time?

A. Not the call but the surprise was, you know, he was having a bad trip; he needed help.

Q. So when Paul Warren called to ask you to come back on board the vessel, can you describe what he said?

A. Pretty much. Gary needs some help. Don't have a trainee right now on board with him. We don't have enough to go around, would you go ahead and get back on the boat. I said yeah. Sure.

Q. And you got on board the boat. Tell us what happened when you got on board the boat and you saw Gary Duncan?

A. He didn't look good. He looked like somebody hadn't slept in two or three days.

Q. Can you describe what his face looked like?

A. Pale eyes. You know sunk in. He was just haggard. Like I said, he looked like a zombie. That's the best way I know how to put it.

Q. Did Gary Duncan tell you anything at this point and time with respect to how he was feeling emotionally and physically?

A. He sat down ó

[Objection by ACBL Attorney overruled.]

Q. Did Gary have a discussion with you about how he was feeling when you first got on board?

A. Yes, he did.

Q. Can you tell us what he said as it respected his physical and psychological state of being at this time?

A. Yeah. I initiated it. I made the comment ó Gary you look rough, what you been into, something like that. He said man they're killing me Brad, I can't get any rest. He said I've hardly no sleep at all. And I said well, I can tell it by looking at you. Then he went into telling me different problems that he had. He didn't have a trainee on board; stuff of that nature.

Q. Did he tell you about the mechanical problems that he had been experiencing pursuant to the company policy that you all were supposed to exchange that type of information?

A. Yeah, he did. And I can't recall all of them. In general, he had some electrical problems cause he had a man get on at Harahan. One of the docking facilities.

Q. Okay. What did you guys do next after you talked about how he was feeling?

A. Well, he started telling me about a problem he had with the center engine that we needed to repair. It was going to take two men. And it was running hot. Suspected a cracked liner. Losing a little bit of water. We were going to do a

pressure test the next morning, pulling it out if we needed to, which is what we ended up doing.

Q. Had you had problems with those kind of mechanical issues for the engines before that time?

A. Yeah. It was common on that boat. Pulling power packs, liners and so forth.

Q. Did Gary say anything to you about needing assistance and having a chief on board?

A. Yeah. Yeah, he did. He said ó he said really a trainee is not enough even if he had one.

[Objection by ACBL Attorney. Question was re-phrased as follows.]

Q. During the period of time that you had been back working for the company in 1999, Mr. Barton, did you ever request additional assistance, full-time engineering assistance for the Miss Kae D?

A. Yes, I did.

Q. To your knowledge did Gary Duncan also request that assistance?

A. Yes, he did.

[Objection by ACBL Attorney sustained.]

Q. Without saying what Gary said, are you aware of whether or not Gary Duncan had requested assistance aboard that vessel?

A. Yes, cause we discussed --

Q. You guys had discussed it?

A. Uh-huh.

Q. Were you present with Gary at the time that he made that request of some company official?

A. Not when he made his request.

Q. Okay. When you made your request for assistance for that vessel during that period of time, what was the response and who did it come from?

A. Well, Paul (Warren) said we'll do the best we can. We don't have enough trainees to go around right now.

Q. So did ACBL ever fulfill their promise to you that they would give you full-time assistance in the engineering department?

A. Not full-time.

Q. Tell me about the work that you all had planned on doing when you got on board the boat and take us through that time up until the next morning?

A. Okay. Discussed the center engine not being able to run at full head. It was running hot. Planned a pressure test the next morning. Captain Roy Jackson, I believe, they had designated a place to do this somewhere up the river. They had that worked out before I got on. Next morning shut the engine down, let it cool off a couple of hours; started repairs. We ó go on with that or is that enough? Or ó

Q. That's fine for the time being. Did you sleep that evening before you woke up to do the work?

A. Yeah. Yeah, we did.

Q. Did any alarms go off that night?

A. I think we had one false alarm before we went to bed.

Q. Okay. When Gary was telling you about how bad he was feeling, did he tell you about any alarms having gone off when he was working by himself?

A. Yeah, we had one engine that gave a false lube oil, a false alarm quite often. I can't remember, I want to say it's the port (engine but) I'm not sure. He had said that that was going on. That was something we lived with. You know, we both had that happen to us.

Q. So what happened the next morning, you guys got up; you knew that you were going to be replacing a power pack?

A. Uh-huh.

Q. Did you start at the normal time 6:00 in the morning?

A. Yeah.

Q. And then did you continue working for about five and a half hours as was mentioned on the Coast Guard report?

A. Yes. I'm sorry.

Q. Okay. Can you describe the conditions of the engine room when you were doing this work and take us through some of the events of that morning and explain that to the jury?

A. Extremely hot. Hundred and twenty-six degrees. I don't know any other way to describe it. There are three fans, stack fans that pull the heat out. Only two of them were working at the time. I believe we didn't have belts for them. Gary told me they weren't working cause I made the comment, it's too hot in here. The outside engine was still running; we were working in the middle of them. That's pretty much the conditions.

Q. Did you guys try to fix or repair the ventilation problems?

A. Too hot. That's where all the heat went. You know, I suggested I go up there; Gary said you get up there you liable to pass out. I said I'm liable to pass out down here as hot as it is. So we didn't.

[GCMA Comment: The hot air rises to the top of the upper engine room, to the exhaust stacks surrounding the engine exhaust pipes. The exhaust fans direct the heat out through openings in or near the exhaust stacks.]

Q. So does that make the engine room actually warmer than it would otherwise have been?

A. It would have been a little bit cooler with more fans, no doubt.

Q. Did you determine later on what the cause of that problem was?

A. Yes. Again, two belts were off. But also one of the fans, the wire had come loose. One of the leads. And so it was the combination of two things for one fan and a belt for the other.

Q. Typically, when you order replacement parts for that kind of work, how do you do that? You do that with a formal written requisition form or do you do it by telephone?

A. A lot of it you do through the PETER (Phonetic). They have a PETER. Send it ó you order it, send it in; they mail it, if it wasn't involved to call boat maintenance. Sometimes emergencies, you have to call ahead for the parts, have a man to do repairs or have a part brought down to you.

Q. Okay. So what happened when you and Gary are working on this power pack at a hundred and twenty-five degree temperature without adequate ventilation? Take us through the entire morning and just tell us as specifically and briefly as you can?

A. Okay. Gary was working the top, taking the accessory off such as the fuel lines, rack arm. I know that's all Greek to you all. After we got it to where it would come out, probably took an hour, a hour and a half, we had trouble getting it out. Have to hook a big chain fall on it and pull it. This component stuck. It's very heavy. We pulled on it; pulled on it. Gary said he was getting hot; said he felt bad. I told him to go in the control room. I was the younger of the two of us. He went in the control room and I think he stayed about fifteen

minutes, maybe twenty minutes.

Q. Let me ask you, when you say he was feeling bad, could you describe what he looked like?

A. To me he just looked hot at the time. Of course, I was into what I was doing. But he looked pale. I looked at him and he did look pale. I remember that. Sweating a lot. Both of us were.

Q. Was the work that you had been doing up to that point and time physical work?

A. Oh, yeah. Again, pulling and yanking on this chain fall and this pack being stuck. We were both pulling on this thing together, trying to get it out.

Q. Was that heavy work as you would describe it?

A. Oh, sure.

Q. Okay. So Gary took one break. Did you continue working?

A. Yeah.

Q. What happened, did Gary come back?

A. Yeah, he came back and I told him I was going to get a drink. I ran and got a drink, stayed in there maybe two or three minutes, came back; went to pulling on it again. And I think after another fifteen, twenty minutes, we popped it out. We got it out. And he said, you know, let's take a break now, it's probably close to lunch. So we went ahead and went in to eat.

Q. Okay. How was he feeling based upon what you saw at this time when you guys took a break?

A. Wasn't talking a whole lot after that. We went to lunch, he just -- did say -- he say maybe if I eat my stomach will feel better. My stomach is kind of hurting me, kind of nauseated.

Q. So how much time did you guys spend in the lunchroom getting something to eat or drink?

A. Twenty, twenty-five minutes. Something like that.

Q. After you left the lunchroom, where did you go?

A. Back to the control room. He went ahead of me. He went through the engine room and I went outside, get some air and walk down the side of the boat and went in the side entrance to the control room and met him in there.

Q. Was it only a matter of a few minutes then that you joined Gary in the control room?

A. Yeah. I'd say about four or five.

Q. So was it a total amount of time of about thirty minutes or so, thirty-five minutes since you had left the hot physical working environment to go to lunch and then get to the control room?

A. Yeah. I'd say that's pretty close.

Q. How long were you in the control room before something happened?

A. Just minutes. Just minutes.

Q. Okay. Can you describe for us what you saw in Gary's physical being ó before he passed?

A. Again, he looked -- you know, he looked pale. And I really didn't think anything of it when I came in. And he was joking a little bit, teasing me about staying in the galley and accusing me of breaking into the carrot cake. We had a little bet. We were going to go on a diet. I said I was going to eat the carrot cake. He said yeah, you were. When he did that he got a funny stare, that -- he looked out the window that you saw in the control and sat there for a minute. I said Gary what you looking at? He didn't answer me. I said Gary you're scaring me. He took a breath and just fell back in his chair, just that quick. Joking with me one minute and out like that. I mean he said I won't gone get the carrot cake ó

Q. What did you do next, Brad?

A. I called the captain. Gary was slumped back in the chair. Called Roy; told Roy Gary is down and turned around and Gary look like he was slowly sliding out of his chair. So after I hung up, I got Gary and laid him on the floor. Didn't -- seem like a long time. Didn't seem like anybody was coming. I called Roy again. I said I need some help back here. So I took off running up the side of the boat. Deck crew on the front had a little patio furniture. I said y'all got to get back here to help me. Everybody came then.

Q. What did you try to do in the meanwhile?

A. I got him down and started -- I went ahead and started mouth to mouth. I checked him, didn't have a pulse, he wasn't breathing, nothing. I thought at first maybe he was choking. You know, I didn't know what he ate and checked his throat. Turned his head over to the side and make sure I could clear his throat. Make sure he wasn't just choking. Couldn't find anything, you know, blocking his airway. I think Jerry came in, the mate and started helping me with heart massage.

Q. Could you tell when you were trying to resuscitate him whether or not his body temperature was warmer than normal?

A. He looked cold. He looked clammy. The change I noticed about him right off the bat was his lips, they looked purple.

Q. Let's skip past the next step cause I understand that Gary was taken off the boat and then at some point and time questions were asked of you about what had happened, is that correct?

A. Yeah.

Q. Who was the company official in charge of doing the investigation?

A. I don't know who the man was. He called me on the water com. That's a cellular phone service you have on the boat. And I was still pretty scatter brained. I had to finish this repair and I told him what happened and don't even remember his name.

[GCMA Comment: The drive to finish making repairs and to get underway in spite of the human tragedy that just occurred is understandable only to those familiar with the dynamic pressures this industry exerts upon its participants.]

Q. Did you ever tell any company official about the physical work that you had been doing or the temperatures that you guys had been experiencing?

A. Yeah, Paul Warren. Now he called. He was really sympathetic about it and I talked to him about it. Told him how hot it was and mostly I told him how shocked I was. I couldn't believe it happened. Be sitting there joking with somebody one minute and then he died. And Paul, he wanted to know if I needed a relief. Are you all right and so forth. I said I got repairs I got to do. I'm here, I -- I'll go ahead and get them done.

Q. When you were being questioned by company officials about the circumstances did you ever tell them that you thought that there were some unsafe work conditions that played a role?

A. Definitely.

Q. Who did you tell?

A. I told Paul first and then one conversation later I

suggested it to Butch.

Q. Mr. Barras?

A. Yes. Butch Barras.

Q. What did you tell them?

A. That I felt like the circumstances, the way we were working, the way Gary was working lead up to his death. I wouldn't -- what you got to understand I went through this with Paul first. And he asked me point-blank, you saying you think we killed Gary? I said Paul, I'm not saying that. I'm saying the way we worked it surely didn't help.

Q. Did you ever notify the company that you believed you did not have enough men on board to work that vessel?

A. Yes. Yes, I did.

Q. What do you feel like the proper number of engineers or assistant engineers would be to handle a vessel of that size doing that kind of work?

[Objection by ACBL Attorney resolved. Court recesses briefly and reconvenes.]

Q. Brad, I've just got a few more questions and we're going to try to wrap it up. I believe that we left off I was asking you about your opinions with respect to the proper level of manning the engine room on this vessel. First of all let me ask it this way. When either you or Gary had a trainee on board, do you feel like that was adequate assistance to do the work demanded of that vessel?

A. No.

Q. When you and Gary were on board working together as two chief engineers, in your opinion, was even that adequate to do the job properly and safely?

A. Not really.

Q. Mr. Barton, do you have an opinion with respect to how many qualified engine room people were required to work the Miss Kae D vessel, the nine thousand horsepower vessel?

A. A minimum of three. Two competent men and one assistant.

Q. Do you believe that that schedule of people should have been delegated into certain watches with their hours regularly set?

A. Yes, I do.

Q. Would that allow for you to sleep relatively uninterrupted and get a good sleep?

A. Yes, it (would).

Q. The way that the situation was with the chief only getting trainees, in your opinion, does that cause fatigue?

A. Sure. Yes, it did.

Q. Did it cause trouble with sleep?

A. Yes.

Q. With respect to the log books that you kept on behalf of the company. There are a couple of different books, right?

A. Yes.

Q. Was the company ever specific with you, telling you what kind of information you needed to put down in those books?

A. No.

Q. There are some places where you have to put down specifically the log readings or meter readings from the equipment, right?

A. Yes. That's self-explanatory.

Q. Otherwise, there's some small space there to put additional comments if you see fit, is that correct?

A. Yes.

Q. The company ever give you directions, telling you what you should put in those boxes?

A. No.

Q. Did the company ever ask you to keep track of the total number of hours that you had to work in a twenty-four hour a day?

A. No.

Q. In your opinion, did the company know that you guys were working more than twelve hour days?

A. Yes.

[Objection by ACBL Attorney. Question re-phrased.]

Q: Did you ever have conversations with company management, either Mr. Warren or Mr. Butch Barras to let them know the excessive number of hours that you were working?

A. Yes, I did.

Q. And their response was what?

A. Only do what we can do. We're short of trainees.

Q. And if you decided not to work under those conditions, what realistic option did you have?

A. Find another job or be fired.

Q. Is that what you did after Gary Duncan died on this boat?

A. Yes, I found another job.

Q. The company that you work for now is what?

A. Midland.

Q. Do they operate similar types of vessels to the Miss Kae D?

A. Yes, they do.

Q. How many engineers do they crew on their vessel?

A. They keep one chief and one assistant at all times.

Q. They set them up in opposite watches so that one can be working while the other one has time to sleep?

A. Yes. That's correct.

Q. Did you review some of the logs during the period of time that Gary Duncan worked for ACBL?

A. Yes, I did.

Q. Even though the company did not require that the exact number of hours be recorded by Gary, were you able to determine whether or not Gary Duncan regularly worked hours over and above his regularly scheduled watch, the forward watch?

A. Yes. Yes, it was.

Q. How often did you see that in the record?

A. In almost fifteen days for sure because he didn't have anybody on board with him. But this happened off and on the entire time I worked with the vessel.

Q. That was not an infrequent occurrence to be working hours in addition to your scheduled watch?

A. No.

Q. And did you look back through the older records, going back months to see what Gary Duncan's work history was?

A. Yes, I did.

Q. In those records, did you see a number of days where he had to work substantial hours over and above his regularly scheduled twelve hours?

A. Yes, I did.

Q. Was that uncommon?

A. No. Naw. Naw. This is the way it was.

Q. The hours that you don't have scheduled to work, let's assume that you don't have any work to do at this particular time. You're supposed to have six hours off, right?

A. Yes.

Q. What do you do during that time off?

A. Catch up on cleaning your room. Doing your laundry, bathe, eat; phone home.

Q. Take care of personal business?

A. Yeah.

Q. Out of the six hours on the best days when you didn't have any interruptions or demands to work, how much sleep were engineers generally able to get during that six hour period?

A. You're lucky if you get seven or eight hours total between the two watches.

Q. Three to four hours per six hours off watch?

A. Yeah. Yeah.

Q. Based upon your review of the records and your experience working out there on the Kae D, do you have an opinion as to whether or not the mechanical problems that you personally experienced were something that were new or were they longstanding?

A. No, they were longstanding.

Q. In your opinion, was the Miss Kae D reasonably fit in a mechanical sense for the work that the company was asking that it be done?

A. No.

Q. Based on the number of people that ACBL crewed in the engine room, do you believe that that vessel was reasonably fit for the work that was being demanded of it?

A. No, I don't.

Q. What do you think about the captain's boat handling skills?

A. Both of them, both captains, excellent boat handlers. No questions about it.

Q. What was the best thing about working for ACBL?

A. That particular crew comradery. Friendship.

Q. Was that the way you could endure these working conditions?

A. Pretty much. I talked to the mate a lot. And one of the captains James French .

THE BOTTOM LINE FOR MARINERS

The towing industry has been willing to use any tactic or device to maintain the uninspected status of towing vessels in spite of the public outcry resulting from an increasing number of high profile accidents.

The towing industry's manipulation of the political process in the nation's capitol has been masterful for well over thirty years. During this time, mariners working in the industry were denied a meaningful voice in the workplace in an industry that is one of the most dangerous in the country.

For our lower-level mariners, the struggle has nothing whatever to do with politics or political power. Rather, our mariners need the marine industry to operate with much greater concern for their safety, health and welfare.

The Occupational Safety and Health Act of 1970 states in part:⁽¹⁾ "The Congress declares it to be its purpose and policy to provide for the general welfare, to assure so far as possible every working man and woman in the nation safe and healthful working conditions and to preserve our human resources" [29 U.S. Code §651(b)]

The Coast Guard, that controls our mariners' workplace, has worked closely and consistently with industry trade associations and management over the years to effectively deny our lower-level mariners an effective voice at the table. The Coast Guard delivered to our lower-level

mariners very few of the fruits envisioned by the Occupational Safety and Health Act. The Coast Guard has proven to be an ineffective protector of our mariners' safety and health in the workplace.

Many corporate executives also undermined, damaged, or destroyed both the reputations and initiatives of maritime trade unions to secure meaningful collective bargaining and benefits for our exploited "lower-level" mariners. Although GCMA is NOT a labor union, we understand that any mariner who stands alone does not stand a chance against the power or inertia displayed by the Coast Guard bureaucracy or to change unfair or unsafe policies of his own employer.

Unlike "upper-level" mariners who are heavily unionized, "lower-level" mariners were thoroughly beaten into submission over the years. A "lower-level" mariner looking working in the towing or offshore oil sector of the marine industry increasingly sees:

In general –

- A job that will never be a "career."
- A job for younger employees that does not lead to "retirement." Few "boat" companies stay in business long enough to provide a meaningful and realistic retirement program.
- Loyalty to a "corporation" is meaningless if not foolish.
- Surviving stress to reaching age 62 or 65 on the job is a difficult challenge. [*Refer to GCMA Report #R-403, Stress and the Licensed Mariner.*]
- There will be no relief or special deals cut for mariners with legitimate medical waivers and partial or temporary disabilities. If you can't perform your job as well as a younger person, you should choose another line of work or die on the job. [*Refer to GCMA Report #R-370, 12-Hour Rule Violations: The Verret Case.*]
- There is a constant move within the industry to reduce crew size without reducing the amount of work to improve corporate "bottom-line" performance.
- For the most part, industry relies upon a large pool of untrained workers.
- Industry has developed such an odious reputation that an increasing source of low-cost labor in the future will come from reform schools, jails, and foreign workers including illegal aliens. This will introduce new problems.
- Industry has been unwilling or unable to invest in, train, retain, and seek to improve and upgrade the job skills of the people it already has.
- Industry fought efforts to require all mariners to obtain Merchant Mariner Documents to stabilize the workforce as advocated during the 1990s by the Seafarers International Union. Homeland Security may now require the same thing for "identification" purposes only.
- Inept Coast Guard personnel policies discourage mariners from remaining in the industry. The Coast Guard failed to

simplify and reform this system to make it "user friendly" for over 30 years.

- Industry expects the public and its government to continue to ignore its failures and its accidents. The "Limitation of Liability" concept is alive and well and will continue to absorb huge losses as infrastructure is damaged and destroyed and the environment is polluted.
- Although management should be encouraged to develop its Safety Management System, the administrative burdens it brings to working mariners requires institution of a "three-watch" system on vessels that operate continuously on a 24-hour basis using our "lower-level" mariners.
- Greater recognition of and appreciation for travel time issues in enforcing 46 U.S.C. 8104(a) as GCMA presented to the Towing Safety Advisory Committee should lead to the introduction of the "three-watch" system.

Specifically for Engineers –

- The Coast Guard never recognized and encouraged the need for trained and licensed "lower-level" engineers.
- The lack of engineer training facilities for "lower-level" engineers attests to this failure. The Coast Guard has been too busy to notice this. [*Refer to GCMA Report #R-401.*]
- Union schools offer meaningful training for engine room personnel although few "lower-level" engineers are trained at these schools. This is because many in corporate management oppose unions because they would not allow them to continue to exploit their employees.
- Because of its noise and heat, a vessel's engine room is a poor location for engineer instruction.
- "On the job training" (OJT) is often nothing more than "the blind leading the blind."
- Using untrained deckhands to perform heavy manual labor in engine rooms without basic safety training is an unsafe practice.
- Trainees are often a burden to trained engineers unless they have undergone basic safety training and have a fundamental knowledge of diesel engines, electricity, hydraulics, pneumatics, pump operation, etc. [*Refer to GCMA Report #R-401*]
- The status of Gary and Brad as USCG-licensed engineers did not give them any meaningful status as towing vessel officers. Their position should be comparable to the position upper-level engineers hold on the ships they serve on. This speaks poorly of the "voluntary" licensing process currently available to our "lower-level" mariners who wish to prove their proficiency to their employers and advance in their career. A meaningful "career path" must be established or them to follow.
- Few engineers can understand new technologies without undergoing training. Without adequate training, it may not

be possible to troubleshoot in a meaningful manner. Stealing trained engineers may be less expensive than training them. Somebody has to "stock the pond." Industry recruits from the armed forces but has trouble retaining these recruits for reasons that are obvious from this report.

- Only the largest vessels have a "Control Room" where Engineering personnel can retreat from the noise and heat of their environment. The 8-hour work day recognized similar stressful conditions on steam vessels.

The Coast Guard –

- "Lower-level" mariners see the Coast Guard as part of the problem. They are perceived as being biased in favor of corporate interests and trade associations and so patronized by them that they can not deal effectively with our "lower-level" mariners. Former Coast Guard officers (not enlisted personnel) who accepted industry positions via the "revolving door" are perceived to be most suspect by our mariners.
- Coast Guard officers in Marine Safety Offices never get out "on the boats" to witness first-hand what our mariners see and experience. They work from second or third-hand information. This situation must be remedied so that our mariners can be treated fairly and in the context of the environment they work in on a daily basis. Neither shipyard inspectors or officers serving behind the desk can understand this without experience in the field. Their services are NOT so valuable to our nation that they can be deprived of this training. If they don't understand our mariners, they must no longer be allowed to regulate them.
- The Coast Guard dumped the 1995 international Standards of Training, Certification and Watchkeeping Convention on our "lower-level" mariners without adequate preparation. It is a system that is alien to our mariners, contains impressive paperwork hurdles that many of our mariners have problems coping with, and was never explained adequately. This remains a significant Coast Guard failure in the area of maritime personnel management.

CLOSING REMARKS

In closing, we can only hope that the untimely death of Chief Engineer Gary Duncan in the engine room of the M/V KAE D will not have been in vain. We believe that meaningful changes must result from this tragedy. In this report, we tried to present the problems that occurred on an inland towing vessel while noting in references to other GCMA Reports that similar concerns exist occurrences take place throughout segments of the marine industry served by our "lower-level" mariners.

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