



SPECIAL ANNOUNCEMENTS

Port Operations Handbook 2014

Recently shipped to Sectors and MSUs, this provides excerpts from select Coast Guard regulations, and additional information to help Coast Guard and industry maintain safety and security on the waterfront.

cgportal2.uscg.mil—units—cgfac2—Facility Inspections—Tools and Job Aids—Inspection Job Aids—Handbook Port Operations 2014 Edition May 29 2014.pdf

Proceedings Magazine Fall 2014 Edition

The Fall 2014 edition of the Coast Guard Proceedings Magazine was recently published and includes a very well crafted article by LCDR Darwin Jensen and LT Mike St. Louis of the CG-FAC staff.

The article highlights the very dynamic environment of containerized shipping and some of the risks that containerized cargo poses to the marine transportation system.

Proceedings can be viewed online at: www.uscg.mil/proceedings/

Waves on the Waterfront

CG-FAC, Office of Port and Facility Compliance
Safety, Security, and Stewardship
for the Nation's Ports and Facilities

Volume 2
Issue 6



October 2014

What's New?

In the world of ports and facilities, a great deal. Cyber security concerns continue to dominate the headlines. The maritime industry is as dependent on these systems as the rest of society, and collectively we must address these new risks. LCDR Josh Rose offers some good advice on how to do that. Read his article, and check out the cyber security section of Homeport for more information.

While cyber is creating new risks, business is creating new opportunities for the country, and with them, new challenges for the Coast Guard. The increase in U.S. oil and natural gas production is driving changes in the way energy is produced and transported in this country. Coast Guard personnel in the field are working to adopt to these changes, conduct our required vessel and facility inspections, and incorporate the new dynamics into our risk assessment processes. Here in Washington DC, legislators

and other executive branch agencies are seeking the Coast Guard's input on how to best prepare for and meet these challenges.

The use of LNG as a marine fuel is one aspect of this new "energy Renaissance". A CG-FAC led workgroup has been developing LNG related policies, working with industry, and identifying best practices from around the world. We've had a great deal of field input into the process, and I'm confident that our emerging policies will meet the needs of industry and ensure we can make use of this fuel while maintaining safety and security standards.

Coast Guard Facility Inspectors and Port Security Specialists have a big job trying to keep up with these changes. CG-FAC is doing our best to provide you with the tools and training you need. If you have questions or suggestions, let us know how we can help.

Captain Andrew Tucci,
CG-FAC



National Maritime Advisory Committee Membership Opportunity



The National Maritime Security Advisory Committee (NMSAC) is looking to appoint 7 new members to bring its current membership to 21. NMSAC is a Federal advisory committee that advises, consults with, and makes recommendations to the Secretary of DHS via the Commandant of the Coast Guard on matters relating to national maritime security. For example, the NMSAC recently developed recommendations for the Coast Guard to revise and implement a comprehensive Suspicious Activity Reporting program.

The full Committee normally meets at least two times per fiscal year. Working group meetings and teleconferences are held more frequently, as needed. The Committee may also meet for extraordinary purposes.

We're looking for experienced applicants with at least five years of practical experience that can represent the interests of the following categories:

- port authorities;
- facilities owners or operators;
- terminal owners or operators;
- vessel owners or operators;
- maritime labor organizations;
- State and local governments; and
- maritime industry.

Due to the nature of NMSAC business, NMSAC members are required to apply for, obtain and maintain a government national security clearance at the Secret level. The

Coast Guard will sponsor and assist candidates with this process. Each member serves for a term of three years. While attending meetings or when otherwise engaged in committee business, members may be reimbursed for travel and per diem expenses as permitted under applicable Federal travel regulations. However, members will not receive any salary or other compensation for their service on the NMSAC.

If any industry or AMSC member is interested in being considered for appointment to this committee, please submit a cover letter and resume to Mr. Ryan F. Owens via any of the following means:

E-mail: ryan.f.owens@uscg.mil, Subject line: NMSAC

Fax: 202-372-8353, ATTN: Mr. Ryan Owens, NMSAC ADFO

Mail: Send your completed application packets to: Mr. Ryan Owens, NMSAC, ADFO, CG-FAC, U.S. Coast Guard Headquarters, 2703 Martin Luther King Jr. Avenue SE., Washington, DC 20593, Stop 7501, Washington, DC 20593-7501.

Applications should be received no later than December 31, 2014.

For more information, please contact Mr. Ryan Owens, ryan.f.owens@uscg.mil or 202-372-1108.

Advancing Technology

Author: LT Michael St. Louis

The Office of Port and Facility Compliance is leading the Coast Guard into the future of technology by spearheading an initiative to provide iPads to field units for testing and evaluation to determine the level of functionality and resourcefulness the devices provide. Through a waiver request from CG-64, CG-FAC received authorization to purchase 88 iPads to be distributed to field units. Unfortunately, due to issues during the procurement process, we have only received 16 of the 88 iPads. However, we anticipate accepting delivery of the remaining iPads within the next month. Once received at CG-FAC, they will be immediately distributed out to the field units who volunteered to participate in this pilot.

In order to support this initiative and to provide a mechanism by which field users can share and discuss ideas on how they are using the iPads, CG-FAC developed and maintains a CGPORTAL collaboration site that contains all of the supporting documentation for the program, and links to helpful sites and locations to download references. It also includes a team discussion area for open dialogue of best practices, troubleshooting tips, and lessons learned. It is available on CGPortal at: <https://cgportal2.uscg.mil/units/cgfac2/iPads/SitePages/Home.aspx>

The Boogeyman in the Closet

Author: LCDR Joshua Rose

October is National Cybersecurity Awareness Month. For many bag carriers, this makes for the response, “So what?” this isn’t the inspectors’ problem; the Coast Guard has IT specialists that take care of its systems and companies can handle their own cybersecurity. For many, they view it as the boogeyman; there’s lots of talk of looming attacks on unsuspecting victims, but it hasn’t struck anyone in the maritime environment. It’s not like the Coast Guard is regulating financial institutions or companies like Target or Home Depot. I mean, really, what is the chance that a hacker half-way across the world will target one of the facilities or vessels we are responsible for?

However, that’s exactly the point. We *are* responsible for those facilities and vessels. Just like in the early 1990s when we realized we lacked proper standards for pollution, we did something about it. It wasn’t easy, but we learned about SOPEPs, COFRs, and facility response plans and altered course accordingly. In the late 1990s, we realized that the foreign fleet of vessels coming to the United States posed a problem. So we learned IMO port state control standards and altered our course. In the early 2000s, we realized physical security was lacking in ports, so we learned about AMSPs, VSPs, and FSPs. Many of these lessons came on the back of horrible events. But, do we want to wait for the next big event to act or do we want to be proactive?

The fact of the matter is that cyber incidents *are* happening in our community, and by many different actors. It could be the criminal organization that has hacked a container terminal to hide movement of drugs in containers. It could be the disgruntled ex-employee that has hacked in and shut down leak alarms on oil rigs. It could be hackers attacking a major oil company and causing the destruction of tens of thousands of computers. This is just a small sample of cyber events that are affecting the maritime transportation sector.

Attacks are happening and we have a responsibility to the safety and security of the maritime transportation sector. So what can you do? First off, begin to educate yourself on cyber. When terms like D-DOS or Ransomware are used, find out what they mean. As noted in ALCOAST 122/14, you should also encourage your industry partners to inventory their cyber systems, identify

those systems that could potentially contribute to a TSI, and evaluate the degree to which these systems are protected from attack, misuse, or failure. You should provide them resources to assist in conducting assessments. CG-FAC has endeavored to make Homeport a one stop shop for maritime cyber security, including risk assessment tools offered by Industrial Control Systems Cyber Emergency Response Team (ICS CERT). ICS CERT has an online course that gives baseline knowledge of cybersecurity in industrial control systems. DHS online guidance can help inspectors not only educate themselves, but educate industry. Also, begin to have dialogue with your port partners. You might be amazed at what they know, already are doing, and what they can offer us, as it is important to build partnerships in this as we would in all other security issues. As standards are developed, we will want input from industry to make sure we are doing what is best for all.

So, the real question is, are you going to hide under the covers and hope the boogeyman never comes out or take action to be prepared?



Facility Inspector / Port Security Specialist Outreach

Author: LCDR Jennifer Osburn

As part of an ongoing effort to maintain effective communications with the field, CG-FAC is exploring options to reach out to Facility Inspectors (FI) and Port Security Specialists (PSS) in addition to our bi-annual workshops. For FY15 we will be conducting outreach with the field through a combination of road shows and webinars. This will help ensure everyone is on the same page, maximizing the effectiveness of the program as a whole. This will also give CG-FAC an opportunity to visit at least one Sector in each District during the visits.

The purpose of this program is to give the field updates of the initiatives and projects CG-FAC is working on and to address any potential issues in the field that we may not be aware of. Our goal at this point in the maritime security program is to gather best practices and identify gaps that should be explored and/or addressed. This plan would involve GC-FAC staff visiting each District in order to reach out to the field units via webi-

nar. The webinars will not necessarily take place at the District offices; we will explore options for Sectors to host.

We understand that each Sector has its own unique issues. As such, we really want to hear from all of you. CG-FAC will develop a baseline agenda and a proposed calendar in the near future, with the projected kick-off to take place mid-January. We plan to send the baseline agenda out to the field early on and ask both FIs and PSSs from each unit to provide input (via their respective District program managers) based on their specific locations. This way, we can adjust the agenda as appropriate for each District and determine who to send from CG-FAC to best address each area's needs.

For any questions or concerns, please contact LCDR Jennifer Osburn at Jennifer.M.Osburn@uscg.mil or (202) 372-1132.



Port of Los Angeles/Long Beach



Port of New York/New Jersey

The American Energy Renaissance

Author: LT Michael St. Louis

Unless you haven't been paying attention, you are probably well aware of the drastic increase in fossil fuel production that is going on in the United States, popularly dubbed the "Energy Renaissance". Advances in the technology and methodology for extracting shale oils has provided a resurgence in production of crude oil in the U.S, much of it from sources that have been in production for many years.

For example, Bakken crude oil from the North Dakota region typically accounted for roughly 100,000 barrels per day in production since coming online 1981; through the use of hydraulic fracturing (or "fracking" as it is often referred), that region has surged to a production rate of 860,000 barrels per day. Regulatory and industry experts estimate crude oil production in the U.S could double within the next year and will continue to increase to an anticipated peak production year in 2020 of 11.6 million barrels per day nationwide.

Crude oil is not the only energy sector that is seeing large increases in the U.S. Production and availability of natural gas is also on a sharp rise and the U.S recently surpassed Russia as the world leader in production of petroleum and natural gas.

The problem now becomes how do we move these large quantities of crude oil and natural gas for either use or exportation? Given that the Bakken region is only one of many areas in the U.S that has

seen production numbers on the rise, it is easy to understand how such a surge in production could potentially overwhelm the existing infrastructure. Crude oil refineries in close proximity to the booming oil fields do not possess the throughput to handle these large quantities of crude and so it must then be moved off to other facilities for refinement. Due to the limited infrastructure of pipelines and lack of waterways capable of transporting crude oil, the majority of these products are being moved in rail carloads. Current estimates place the number of railcar loads of crude oil and petroleum products at roughly 14,000 per week moving nearly 1.4 million barrels per day in 2013.

The ability to transport these resources within the U.S will continue to be the largest hurdle to be overcome in our ability to remain a world leader in petroleum and natural gas production, but it is a challenge that will require close collaboration between the petroleum industry and government regulatory bodies in the U.S to ensure that not only is it done effectively, but also that it is done safely and without negative impact on the environment.

* - All data and statistics for this article were retrieved from the U.S. Department of Energy - Energy Information Administration; <http://www.eia.gov>



Source: U.S. Energy Information Administration based on data from various published studies. Canada and Mexico plays from ARI. Updated: May 9, 2011

Liquefied Natural Gas (LNG) as a Marine Fuel

Author: LT Michael St. Louis

Use of LNG as a marine fuel on commercial vessels was an idea first realized by a Norwegian passenger ferry operator back in 2001, but for several reasons the concept has gained serious momentum throughout the maritime industry in recent years. So if the use of LNG as a fuel is in no way a novel idea, why all the hype?

First the obvious answer; it is become increasingly abundant. Production of natural gas in the U.S alone has increased by over 25% since 2008. Given that LNG offers roughly a 55-70% price reduction per energy unit when compared to low sulfur heavy fuel oil, it is easy to see why it is garnering so much attention. But considering that the worldwide fleet of LNG powered vessels is currently around 50, infrastructure to support widespread use of LNG as a fuel simply does not exist yet. So with the amount of development that will need to take place in ports around the world to support the evolution of LNG as an industry wide fuel and the fact that those costs will to a great extent be passed on to the maritime industry, indirectly driving cost of LNG up, the interest in LNG cannot simply be economic, right?

While the economy of LNG is a key factor, there is another factor pushing the industry to developing LNG as a fuel, the International Convention for the Prevention of Pollution from Ship or MARPOL. Annex VI of the MARPOL regulations is focused on the prevention of pollution from ships by air pollu-

LNG Fuel Tank of a Swedish ferry operating in an Annex VI ECA



tion, enters into force in May 2005 and required marine fuels worldwide to reduce sulfur content to 4.5%. In 2006, Annex VI created certain critical areas of the world called “Emission Control Areas” or ECA’s where sulfur fuels could not exceed 1.5%. Then in July 2010, the sulfur limit within the ECA’s was reduced to 1.0% with further reductions in January 2015 aimed at reducing the content to 0.1%. In January 2012 the worldwide sulfur content requirement was reduced to 3.5%. However the major impact of the Annex VI regulations will come in 2020 when the worldwide sulfur content will be required not to exceed 0.5% globally. While it is safe to say that LNG is not the only solution, it is certainly a front runner. At the present time LNG is certainly a fuel many in the maritime industry are looking at closely to examine the its widespread use to meet the mandates of MARPOL Annex VI and still maintain the safety standards of the industry and make it economically viable.

The Office of Port and Facility Compliance, Cargo Safety Branch chairs a monthly teleconference with members from all over the Coast Guard to discuss activities from a regulatory standpoint that we are working on at HQ and field units provide information and request support regarding LNG as a fuel activities that are taking place within their AOR’s. If anyone is interested in participating in these teleconferences contact:

LCDR Darwin Jensen: Darwin.A.Jensen@uscg.mil



LNG Engine being installed into one of the world’s first LNG powered containership

Port Security Specialist (PSS) Standardized Position Descriptions and New Performance Planning Front End Analysis: The first step toward workforce renovation

Author: Mr. Robert Reimann

Job descriptions can be a tricky thing. How do you succinctly explain the full depth and breadth of a given position? The original PSS position descriptions (PD) were piecemealed based on the evolution of and response to the Maritime Transportation Security Act (MTSA) and Safe Port Act requirements and lessons learned since 9-11. Although they were written with the best information available at the time, Security Specialist were funded and sent to the field with very little guidance for either the PSS or their Command. Due to this lack of guidance, many commands used the PSS as needed to tackle any and all field missions. This resulted in many PSSs performing tasks well outside the scope of work established by MTSA, which the positions were originally established and funded to address.

As the program sponsor and manager for the Port Security/Recovery Specialist community since 2012, the welfare, proficiency and sustainability of the PSS/PSSR workforce is one of CG-FAC's highest priorities. CG-FAC has been steadily improving the program and workforce to fulfill its MTSA requirements. CG-FAC will help refocus field units and the PSSs on MTSA through the development of standardized PDs and a New Performance Planning Front End Analysis (FEA).

Utilizing CG-FAC's PSS Workgroup and CG-121, a standardized GS-0080-12 Security Specialist (Port) PD was recently approved and sent to CG-121 Command Staff Advisors for a one-for-one replacement throughout the Coast Guard. This PD was reviewed and pre-classified to ensure it is accurate to title, series, and grade. Efforts to develop the PSS GS

-13 and PSSR (Recovery) PDs at the GS- 12 and 13 levels are currently underway.

Representatives from CG-FAC and FORCECOM will travel to select field units over the next 6-8 months to conduct a FEA that will verify and validate task requirements of the entire PSS/PSSR workforce. From that, a strategic plan will be developed for a long term sustainable performance support system for Port Security Specialist community.

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