



# Marine Safety Unit Pittsburgh Waterways Information January 2020



## Allegheny River

**Ninth Street Bridge (0.8):** Due to planned work, the vertical clearance may be reduced more than one foot below low steel. Mariners are urged to transit with caution.

**16<sup>th</sup> Street Bridge (1.4):** Due to planned work, the vertical clearance may be reduced more than one foot below low steel. Mariners are urged to transit with caution.

## Ohio River

**Wellsburg Bridge (75.5):** Trestle and cofferdam installation underway. The new bridge will provide a minimum of 800 feet of horizontal clearance. Environmental review underway.

**Bellaire Bridge (94.3):** Demolition date to be determined.

## Tygart River

**1-79 Twin Bridges Replacement (2.6):** Pre-application stage.

## Areas of Interest

### **1. MSIB: Cyberattack Impacts MTSA Facility Operations:**

The Coast Guard published [Marine Safety Information Bulletin 10-19, “Cyberattack Impacts MTSA Facility Operations,”](#) Dec. 16, 2019, to inform the maritime community of a recent incident involving a ransomware intrusion at a Maritime Transportation Security Act (MTSA) regulated facility. Forensic analysis is currently ongoing but the virus, identified as “Ryuk” ransomware, may have entered the network of the MTSA facility via an email phishing campaign. Once the embedded malicious link in the email was clicked by an employee, the ransomware allowed for a threat actor to access significant enterprise Information Technology (IT) network files, and encrypt them, preventing the facility’s access to critical files. The virus further burrowed into the industrial control systems that monitor and control cargo transfer and encrypted files critical to process operations. The impacts to the facility included a disruption of the entire corporate IT network (beyond the footprint of the facility), disruption of camera and physical access control systems, and loss of critical process control monitoring systems. These combined effects required the company to shut down the primary operations of the facility for over 30 hours while a cyber-incident response was conducted. More information about the Ryuk ransomware is available on [U.S. Cert’s website](#). At a minimum, the following measures may have prevented or limited the breach and decreased the time for recovery:

- Intrusion Detection and Intrusion Prevention Systems to monitor real-time network traffic
- Industry standard and up to date virus detection software
- Centralized and monitored host and server logging
- Network segmentation to prevent IT systems from accessing the Operational Technology (OT) environment
- Up-to-date IT/OT network diagrams
- Consistent backups of all critical files and software



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The Coast Guard recommends facilities utilize the National Institute of Standards and Technology (NIST) Cybersecurity Framework (CSF) and NIST Special Publication 800-82 when implementing a Cyber Risk Management Program. The Coast Guard urges maritime stakeholders to verify the validity of the email sender prior to responding to or opening any unsolicited email messages. Additionally, facility owners and operators should continue to evaluate their cybersecurity defense measures to reduce the effect of a cyber-attack. This release has been issued for public information and notification purposes only. For more information on ransomware-related best practices and other resources please visit the Cybersecurity and Infrastructure Security Agency (CISA) [ransomware resource page](#). As a reminder, suspicious activity and breaches of security, including breaches of telecommunications equipment, including computer, system and network security measures which support functions described in the facility security plan or could contribute to a Transportation Security Incident (TSI), must be reported to the National Response Center (NRC) at (800) 424-8802. For additional guidance on the defining and reporting of cyber incidents refer to [CG-5P Policy Letter 08-16, "Reporting Suspicious Activity and Breaches of Security."](#) The Coast Guard encourages companies and their facilities to remain vigilant in the identification and prompt reporting of suspicious cyber-related activities. Questions pertaining to this bulletin may be directed to the Coast Guard Office of Port & Facility Compliance's Domestic Ports Division at (202) 372-1109.

<https://mariners.coastguard.blog/2019/12/30/msib-cyberattack-impacts-mtsa-facility-operations/>

### **2. Random Drug Testing Rate for Covered Crewmembers for 2020:**

The Coast Guard has set the calendar year 2020 minimum random drug testing rate at 50 percent of covered crewmembers. The minimum random drug testing rate is effective January 1, 2020 through December 31, 2020. The Coast Guard requires marine employers to establish random drug testing programs for covered crewmembers in accordance with [46 CFR 16.230](#). Marine employers are required by [46 CFR 16.500](#) to collect and maintain a record of drug testing data for each calendar year, and submit this data to the Coast Guard in a Management Information System (MIS) Report by March 15 of the following year. Each year, the Coast Guard will publish a notice reporting the results of random drug testing for the previous calendar year's MIS data and the required minimum annual percentage rate for random drug testing for the next calendar year. The purpose of setting a minimum random drug testing rate is to promote maritime safety by establishing an effective deterrent to drug misuse within the maritime workforce. Intoxicated operations poses a serious threat to life, property and the environment in the maritime commons. As such, the minimum random drug testing rate is intended to deter and detect illegal drug misuse in the maritime industry. The Coast Guard announces that the minimum random drug testing rate for calendar year 2020 is 50 percent. The Coast Guard continues a 50 percent minimum random drug testing rate for 2020 as a result of MIS data for the most recent reporting year which indicated that the positive rate continues to be greater than one percent. [46 CFR 16.230\(f\)\(2\)](#) requires the Commandant to set the minimum random drug testing rate at 50 percent when the positivity rate for drug use is greater than 1 percent. Full details are available through the [Federal Register notice](#).

<https://mariners.coastguard.blog/2019/12/27/random-drug-testing-rate-for-covered-crewmembers-for-2020/>

### **3. An Important Safety Consideration – Hazards of Retractable Pilotheuses on Towboats:**

The Coast Guard issued [Marine Safety Alert 13-19](#) to warn the towing vessel community about hazards associated with retractable pilothouses on towing vessels. Retractable pilothouses offer towing vessel operators great flexibility in meeting the many operational demands facing inland navigation including improved field of view and situational awareness. Although seemingly benign, when a pilothouse is being lowered it presents a crushing hazard to individuals below. Some retractable pilothouses may also be operated in an "emergency mode" that increases the rate of descent and consequently provides less time for workers to recognize the danger and avoid the pilothouse and associated movable gear while it is being lowered. Retractable pilothouses are not specifically addressed in 46 CFR Subchapter M. However, 46 CFR



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140.505(b) states: “All vessel equipment is required to be used in accordance with manufacturer’s recommended practice and in a manner that minimizes risk of injury or death.” Failure to comply with either of these requirements, manufacturer’s recommendations or in a manner to minimize risk of injury, is a failure to comply with the requirement. It is not required for the hydraulics operating these retractable pilothouses to be installed with fail-safe operational features. Absent a fail-safe mechanism, failure of the hydraulic cylinder or other system component may not provide sufficient time for a crew member to recognize the imminent hazard, safely exit the danger zone and avoid a catastrophe. Some retractable pilothouses may also lack alarms indicating emergency mode operation, subsequently increasing their potential risk to personnel. The Coast Guard strongly recommends that towing vessel owners and operators that utilize retractable pilothouses:

- Ensure pilothouses are installed with mechanisms capable of returning the pilothouse to a fail-safe locked condition in case of a failure or malfunction;
- Ensure the pilothouses are equipped to sound an audible and visual alarm during all modes of pilothouse hydraulic movement;
- Instruct operators to confirm personnel are clear of the danger zone before moving the pilothouse;
- Instruct all personnel to never position themselves under the retractable pilothouse, even temporarily;
- Clearly mark and place physical barriers around the perimeter of the pilothouse danger zone and discourage unauthorized personnel movement under the pilothouse;
- Incorporate into the Towing Safety Management System the company/vessel’s policy and procedures, information about the potential dangers, audible and visual alarms, and safety considerations regarding operation of the pilothouses; and,
- Ensure new crew members receive proper training regarding the dangers and that all personnel receive annual refresher training.

This safety alert is provided for informational purposes only and does not relieve any domestic or international safety, operational or material requirement.

<https://mariners.coastguard.blog/2019/12/09/an-important-safety-consideration-hazards-of-retractable-pilothouses-on-towboats/>

#### **4. Towing Vessel Under Charter? Don’t Let It Cause A Break In The Saefy System:**

The Coast Guard published [Marine Safety Alert 12-19](#) to educate the towing vessel community of the need to maintain clear communication with all parties involved in their Towing Safety Management System (TSMS). Recently, an investigation of a towing vessel loss of propulsion revealed gaps in the implementation of the vessel’s TSMS that were causal to the incident and a direct result of a poor TSMS-to-TSMS transition during the chartering of the vessel. The ownership and operational management of a ship can be complicated. The common use of charter relationships among inland towing vessel operators, coupled with a potentially large number of involved parties (Coast Guard, Third Party Organizations (TPO), auditors, surveyors, owners, operators, etc.) and myriad documentation requirements (Certificate of Inspection, TSMS, surveys, audit reports, work lists, maintenance schedules, logs, etc.) makes this especially challenging. In this case, an inspected towing vessel was chartered (bareboat) to another operator with a different TSMS. During the handoff to the new operator, the vessel was added to the chartering company’s TSMS. However, the handoff did NOT adequately address how to bring a chartered vessel under the new TSMS, the receiving TPO did not adequately survey the vessel, and the receiving operator did not understand the existing deficiencies or pending repairs/maintenance. During subsequent operations by the charterer, the vessel experienced a loss of propulsion due to insufficient fuel in the day tank. Upon



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inspection, the fuel transfer pump and the tank's low-level alarm were both found inoperative. Only one of these issues (the low-level alarm) was known prior to the incident and that fact was not communicated during the vessel's handoff. The investigation also revealed that the crew had no knowledge of the charterer's TSMS procedures, did not feel empowered to conduct any repairs on the vessel and were generally unfamiliar with the vessel's configuration and arrangement. The Coast Guard **strongly recommends** that parties involved in the chartering of towing vessels complete the following actions prior to offering or accepting a charter arrangement:

- Ensure a vessel is in full compliance with all applicable regulatory requirements
- Establish clear procedures to transfer a vessel to a different TSMS
- Confirm that all parties understand their responsibilities for safety, repairs, and maintenance;
- Outline the steps to transfer known Corrective Action Reports, deficiencies, and maintenance needs;
- Ensure planned and unplanned maintenance continues under the charter arrangement;
- Establish processes to provide indoctrination/on-boarding for new crew members; and
- Notify the Coast Guard to ensure proper updates are made to the vessel's Certificate of Inspection.

**In summary, each party in the Subchapter M ecosystem has a responsibility to ensure that the transfer of a vessel in or out of a charter does NOT become a break in safety processes or safety culture.**

<https://mariners.coastguard.blog/2019/12/06/towing-vessel-under-charter-dont-let-it-cause-a-break-in-the-safety-system/>