LEARNING THE ROPES CREW ORIENTATION

HORNBLOWER CRUISES AND EVENTS

APRIL 2021



We create amazing experiences. **OUR MISSION** OUR VALUES: OUR OPERATING PRINCIPLES: HORNBLOWER 12 RESPECT 1. Foster diversity and inclusion. ENVIRONMENT 2. Practice conservation and environmental responsibility. SAFETY #1 3. Cultivate a safe and secure workplace. PROFESSIONALISM 4. Be on time. Come prepared. 5. Make data-driven, fact-based decisions. 6. Be decisive with 80:100 solutions (80% right, 100% implementable). EXCEED 7. Expect to win — but compete as an underdog. 8. Embrace innovation and reinvention. COMMUNICATION 9. Listen and be responsive. 10. Strive for efficiency and transparency without politics. TEAMWORK 11. Win as a team. Play your role. 12. Work hard, have fun, celebrate successes. CG 086 1 Bundled City Cruises Email GM and Director of Marine Ops Redacted

RESPECT



The objective of this module is to familiarize you with our people, organization and its policies and procedures so that you will feel comfortable navigating in your new role.

- Learn about the People team in your city
- Become familiar with our vessels
- Learn about vessel safety
- Learn how to access personal, payroll, and scheduling information
- Become familiar with grooming and uniform standards
- Become familiar with our guests and their needs
- Learn about our menus
- Gain a basic understanding of food safety

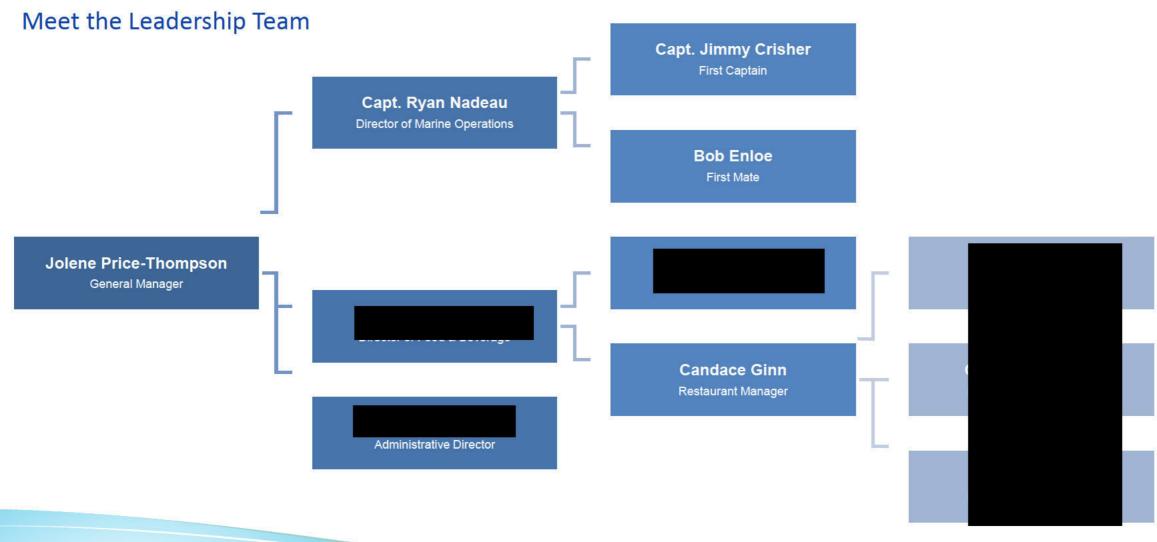
AGENDA

- Our Amazing Experiences
- Vessel Safety
- Systems and Procedures
- Crew Guidelines
- Our Guests
- Explore the Boat



OUR AMAZING EXPERIENCES

City Leadership and Product Offerings



CG 086 1

Bundled City Cruises Email GM and Director of Marine Ops_Redacted

Page 6 of 83

Meet our City Experiences





CG 086_1

Bundled City Cruises Email GM and Director of Marine Ops_Redacted

VESSEL SAFETY

GRAOBRATS

NAUTICAL TERMS

• Galley: Kitchen

Head: Restroom

Bow: Front of the vessel

Stern: Back of the vessel

Aft: Refers to a direction towards the back of the ship (stern)

Forward: Refers to a direction towards the front of the ship (bow)

• Cargo Door: Door located mid-ship on the main deck where we take on passengers or supplies

• Deck: Floor or Specific level on the ship (main deck or 1st deck, 2nd deck, 3rd deck)

• **Disembark**: to leave the ship

Embark: to go aboard the ship

Dock: a landing or pier

Gangway: Moveable ramp used for the loading and unloading of passengers

Void: storage area

• Wheelhouse (Pilot House, Bridge): enclosed space on the upper deck of the ship from which the Captain controls the vessel

To be the leader for safety in the passenger vessel industry



WHAT IS SAFETY



Prevention Common Sense Awareness Communication

Most Accidents Are Preventable

- Any shipmate can report ANY unsafe condition, potential hazard, security issue, or ask a safety/security related question by sending an email to:
- All email inquiries go directly to and will be addressed by the National Marine Department:
 - Scott Smith, VP Marine Operations
 - John Lake, National Director of Marine Ops Safety, Security and Regulations
 - Chip Lee, National Director of Marine Ops Maintenance
 - Chris Bierker, National Director of Marine Engineering

Any immediate safety concern needs to be brought to the attention of the **Captain on duty**.

OUR SAFETY BEHAVIORS



- Training Crew & Vessel
 Familiarization
- Equipment Inspections
- Eliminating Hazards
- Reporting & Correcting Unsafe Conditions
- Follow Safety Standards
- Take Ownership and Action

Safety is everyone's responsibility.

All shipmates are required to follow all safety rules

CG 086_1

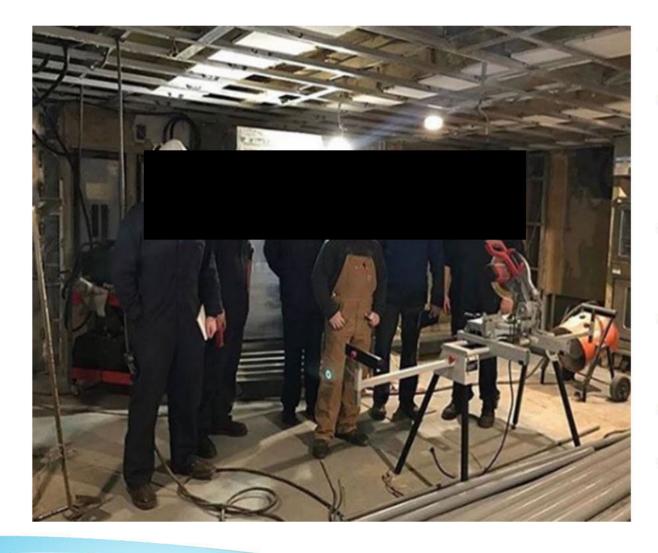
Bundled City Cruises Email GM and Director of Marine Ops Redacted

Page 13 of 83

SAFETY RULES

- Be alert for hazards and act professionally
- Keep floors & stairs clean, dry and clear of debris
- Do not cross into roped off area
- Open hatches must ALWAYS be guarded by an acceptable barrier, boundary or rail type system or attended to by a dedicated shipmate
- Always use the gangway to board and exit the ship
- Wear only approved, slip resistant shoes no open toed shoes
- Use proper lifting technique
- Use your leg muscles and/or get help from others; Do not strain yourself lifting things
- Immediately clean up spills and broken glass using proper methods for handling sharp objects
- Report all accidents

SAFETY RULES



- Assist guests at all times
- Pay particular attention to guests with special needs; elderly guests, children, guests with disabilities
- Do not run, sit on railings, or misuse safety equipment
- Boats move; be cautious while on the stairs or walking the decks
- Be aware of open hatches
- Handle sharp objects correctly

GALLEY (KITCHEN) RULES



- Only assigned shipmates are to be behind the hot line
- Always separate glass from other garbage; never put glass into the trash can
- Enter through the "in" door; exit through the "out" door
- Make sure you make your presence known: ex. "Behind You"

- Freeze for safety announcement
- Check on your guests
- Check china and glassware for chips
- Be prepared to answer guest questions



REPORTING ACCIDENTS



- Report all accidents (even if only first aid—guests & shipmates)
- Report any "near misses"
- Report any hazardous conditions

All incidents get documented on an Incident Report Form and entered in Industry Safe Management System



- Ask if the guest or crew member is OK
- Get a manager or marine crew member involved
- Choose your words carefully;
 be careful not to assign fault
 to the guest or the company



- Follow instructions of Captain & Crew
- Guide & assist passengers and shipmates
- Keep guests and crew members calm

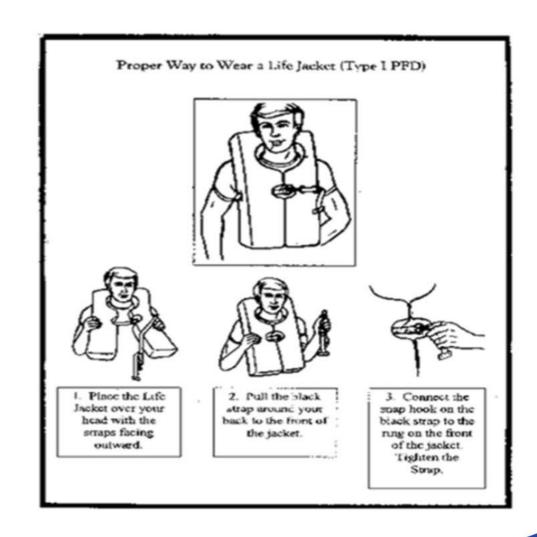


- Fire Extinguishers
- Life Vests
- Life Rings
- First aid / CPR / AED
- Exits and areas of safety
- Sharp Object Safety Kit

- How to don a lifejacket
- Life jacket locations
- Child life jackets up to 90 pounds
- Adult life jackets more than 90 pounds
- Yours first, then your guests'



How to don a Lifejacket



- Report all fires immediately
- Where is the fire?
- What is burning?
- Evacuate the area
- Extinguish the fire (if possible)
- Listen for Captain's instructions



How to operate a Fire Extinguisher



P-A-S-S

Pull

Aim

Squeeze

Sweep

Pull the Pin

Aim at base of fire

Squeeze the handle

Sweep from side to side

Use an extinguisher ONLY if you have been trained to use it

PERSON OVERBOARD



- Pass the word –<u>Notify</u>
 the Captain!
- Throw life ring or life vest
- Keep your eyes on the person
- Point at the person in the water

SECURITY

- Control access to the vessel
- Look for suspicious behavior
- Be alert to unclaimed or suspicious bags or packages
- Report all incidents to the Vessel Security Officer (VSO)

The Vessel Security Officer is the Captain on Duty.



MARSEC = Maritime Security



Level 1: Normal security operations

Level 2: Heightened - Additional protective action required

Level 3: Critical - Security incident probable, Imminent, or has occurred

CONTROLLING ACCESS

- Gangway must be <u>secured at all times</u> (Locked or monitored by crew)
- Question unfamiliar people—"Hello, may I help you with something?"
- Report unknown persons
- Access Levels (Passenger Access Areas, Employee Only Access Areas – Restricted & Secure Access)
- TWIC card usage





- Be observant of the people and events around you
- Who is around you?
- What are they doing?
- Suspicious behavior is based on an unusual behavior, such as being in a restricted area
- Suspicious behavior is not based on ethnicity, language, or manner of dress



- In restricted area
- In the wrong place or lost
- Studying passengers or crew
- Pacing nervous or jumpy
- Alarming or disturbing others
- Unfamiliar vehicles parked inappropriately
- Exiting quickly after leaving a package
- Taking photos of equipment
- Expressing unusual interest in equipment
- Unfamiliar repair people
- People carrying weapons or suspected weapons

SUSPICIOUS PACKAGES



- Left in an out-of-the-way location
- Matches description in a threat
- Abandoned container such as thermos, propane container, or piece of pipe
- Has visible wires or batteries, or has bottles tanks or bags attached
- Is abandoned by someone leaving the area
- Is emitting an odor mist or oily liquid
- Is a bottle filled with strange colored liquid

If you find a suspicious package:

- Stay Calm
- Notify VSO, include description of item
- Secure the area Keep guests and crew at a safe distance
- DO NOT touch, cover or move the item could trigger a device, and/or do not want to contaminate potential evidence
- DO NOT use a radio or cell phone near a suspected explosive devise
- DO NOT reenter once you have secured the area
- If evacuating/relocating passengers and shipmates, make sure the new area is safe and clear of suspicious packages.
 - Are lifejackets needed?

DO YOUR PART TO PROTECT THE ENVIR S AND ES NO ES



- Absolutely Nothing goes in the water!
- Absolutely Nothing goes overboard!
- Garbage is collected, removed and disposed of properly
- Sewage is stored in holding tanks and discharged into sewer system.
- We primarily use LED and/or CFL lighting
- We use Ultra Low Sulfur Diesel
- We recycle our waste oil, sorbent pads, and filters.
- We use environmentally friendly soaps for cleaning

Do Your part!

SAFETY QUESTIONS



SYSTEMS AND PROCEEDURES

DISCIPLINARY ACTION



Disciplinary Action and Involuntary Termination

- Alcohol/Drug Use
- Theft, Fraud, Abuse
- Violence
- Discrimination, Harassment, Retaliation
- Unlawful Acts
- Repetitive Unsafe Behavior
- Insubordination
- Attendance
- Misuse of Company property, confidential, proprietary or inside information

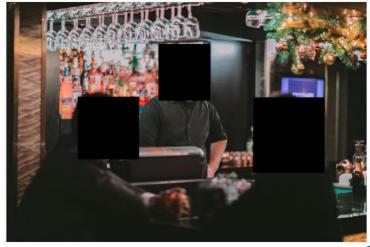
OUR GUESTS

GUESTS INTERACTIONS

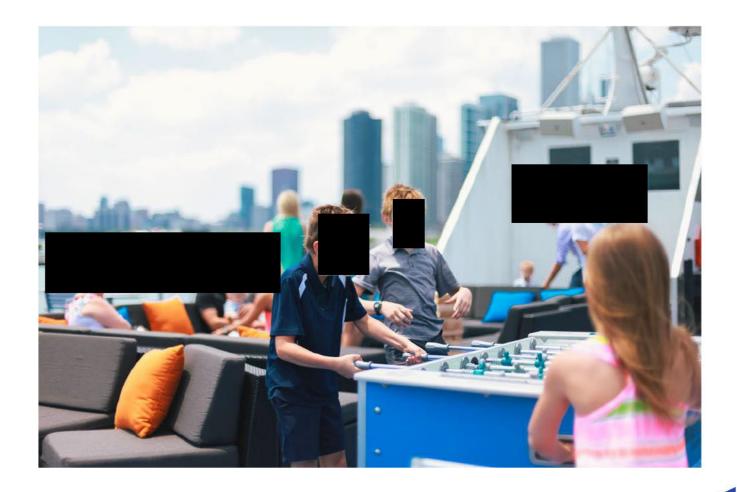
Answering Questions Asked by Guests
Appropriate Topics of Conversation with Guests
All Guests

- · Observe all guests equally
- Handle each situation with a friendly and professional attitude
- Be visible and available to your guests at all times
- Watch for guest signals; this could be a look, gesture or remark
- Check in with your guests often
- Replenish drinks, water, condiments, and silverware as needed
- Do not hover over the guests or interrupt their meal





- Kids' Activity Books
- Kids' cups
- Highchairs and booster seats
- The children's menu





Subject: Administrative Policy 1-3d – Port SafeCruise Teams and Port Safety Officer Policy and Instructions

Date: 1 June 2020

Purpose - The purpose of the Port SafeCruise Team is to promote workplace health and safety by increasing the communication, education, and involvement of crew. The Port's Safety Officer holds permanent membership in the Port SafeCruise Team in order to ensure that responsibility is delegated appropriately. The objective is to increase awareness and accountability of health and safety, increase hazard detection, ensure regular inspections are conducted, identify root causes and execute effective corrective/preventative actions. The SafeCruise Team purpose and procedure also meets various legislative health & safety, RMS and/or Corporate Injury and Illness Prevent Program (IIPP) requirements. The success criteria include reduction of safety incidents and severity, in addition to increasing hazard detection and company safety culture. The Port Safe Cruise Safety Officer must be a member of the Port Management Team.

Membership - The ports will designate membership in the local Port Safe Cruise Teams. The Safe Cruise Team membership shall be represented by the designated Port Safety Officer, supervisory and non-supervisory employees. The Port GM, Port Safety Officer and Human Resources/ISO Management (if applicable) will designate the members of the Port Safe Cruise Team members as well as their membership duration. (Ontario, Canada requirements may vary)

Meetings - There will be one Port Safe Cruise Team meeting each month or more if necessary. The dates will be determined by the members' schedules. All Port Safe Cruise Team meetings and training will be conducted during working hours. All Port Safe Cruise Team members will be compensated at their normal rate of pay during the meetings, Safe Cruise specific training, and any other committee related duties.

Recordkeeping - Complete and accurate records of the functions and proceedings of the port Safe Cruise Teams will be maintained by the Port Safety Officer or designated member and copies distributed to the Corporate Safety Team. Copies of the meeting minutes, inspections and action items will be kept at each worksite for regulatory and auditing requirements. Meetings will be recorded, and minutes will be prepared following each committee meeting. Status of action items coming from the meeting discussions must be included in the subsequent agenda. Action items must remain on the agenda until resolved and entered Industry Safe if applicable.

Documentation:

DOCUMENT TYPE	PURPOSE/DESCRIPTION
Injury and Incident Prevention Plan (IIPP)	Injury and Incident Prevent Plan (IIPP) is required by State legislation or meets/exceeds Federal OSHA
	requirements. (varies in Canada)
Safe Cruise Team Plan	Description of what the committee does including roles and responsibilities, frequency of meetings, etc.(Canadian equivalent, JHSC Terms of Reference)
Safe Cruise Team Meeting Minutes & Action Items	Once approved by the Port Safety Officer they are sent to Corporate Safety Team and entered into Industry Safe H&S databases, if applicable (Canadian equivalent, JHSC)
Safe Cruise Team Agend andled City Cruises Email	GM and bile keep the group focused and follow-up 39 of 83 action items. (Canadian equivalent, JHSC)



Hazard Analysis Form- paper and/or Industry Safe online version	To ensure all job safety hazards are being assessed regularly, hazard analysis is being done and proper actions are being taken.		
Safe Cruise Team Inspection Checklist	Used for monthly site inspections at offices, landing, galley/kitchens and vessels (Canadian equivalent, JHSC)		

PORT SAFETY OFFICER DUTIES:

- Facilitates Port Safe Cruise Team Meetings
- Manages and assigns execution of regular inspections
- Manages and assigns execution of Hazard Analysis, ensure is being conducted for routine and non-routine activities with associated hazards
- Manages and assigns posting of Port Safe Cruise Meeting Minutes to Corporate
- Reports out Corrective Actions in Corporate Safe Cruise Meetings
- Ensures Incident Reports are properly completed, Root Cause Analysis are performed, Corrective Actions are assigned and followed through to completion
- Attends a 10-hour OSHA Site Worker Certification Training Course
- Assists GM to ensure all departments are conducting pre-shift training talks as per the Corporate Quarterly or ISO Training Talk schedules
- Works with the corporate office and insurance to conduct workplace facility safety inspection for loss control prevention
- Works with GM, HR/ISO Management and Corporate Safety Team, to follow the IIPP and RMS requirements
- Other duties as assigned by GM, HR/ISO Management and Corporate Safety Team

States, 46 U.S.C. §6308 Spirit of Norfolk

May 6, 2022

Week of May 9, 2022

Monday May-9	Tuesday May-10	Wednesday May-11	Thursday May-12	Friday May-13	Saturday May-14	Sunday May-15
Captain	Captain	Captain	Captain	Captain	Captain	Captain
R&M CG INSPECTION PREP R&M CG INSPECTION PREP	R&M CG INSPECTION SON CG INSPECTION SON CG INSPECTION SON	08 30 16 30 R&M Maint	17 00 23 30 FT	08 30 16 00 12 2	08 00 15 00 FT Capt 1130 130 17:00 - 03:00	09 30 16 00 FT Capt 1 3 15:00 - 21:30 - FT Capt 6-830 ROLLOVER
Deckhand	Deckhand	Deckhand	Deckhand	Deckhand	Deckhand	Deckhand
08:30 - 16:30 R&M CG INSPECTION PREP R&M CG INSPECTION PREP - R&M CG INSPECTION PREP R&M CG INSPECTION PREP	O7:00 - 16:30 R&M CG INSPECTION SON - SON - R&M CG INSPECTION SON	08:30 - 16:30 Maint - R&M Maint - Maint	17:00 - 23:30 Marine CG TRAINING 7-11 Marine CG TRAINING 7-11 Marine CG TRAINING 7-11	08:30 - 16:00 Marine 12-2 Marine 12-2 TRAINING DAY 3 Marine 12-2 Marine 12-2 16:00 - 02:00 Marine 7-930, 11-1 Marine 7-930, 11-1 - Marine 7-930, 11-1	08:00 - 15:00 Marine 1130-130 Marine 1130-130 - Marine 1130-130 17:00 - 03:00 Marine 8-1030, 12-2 Marine 8-1030, 12-2 Marine 8-1030, 12-2	09:30 - 16:00 Marine 1-3 Marine 1-3 Marine 1-3 15:00 - 21:30 Marine 6-830 ROLLOVER Marine 6-830 ROLLOVER - Marine 6-830 ROLLOVER
Mate	Mate	Mate	Mate	Mate	Mate	Mate
R&M CG INSPECTION PREP R&M CG INSPECTION PREP R&M CG INSPECTION	07 00 16 30 R&M CG INSPECTION SON R&M CG INSPECTION SON R&M CG INSPECTION	08 30 16 30 R&M Maint	Marine CG TRAINING 7 11 Marine CG TRAINING 7 11	08 00 16 00 Marine 12 2 15:30 - 02:00 Marine 7-930, 11-1 - Marine 7-930, 11-1	07 30 15 00 Marine 1130 130 16:30 - 03:00 Marine 8-1030, 12-2 - Marine 8-1030, 12-2	09 00 16 00 Marine 1 3 15:00 - 21:30 - Marine 6-830 ROLLOVER - Marine 6-830 ROLLOVER
PREP Security	SON Security	Security	Security	Security	Security	Security
Security	Security	Security		21:30 - 01:30 Spartan 6 GUARDS	22:30 - 02:30 Spartan 6 GUARDS 1BOARDING AT 11PM 12-2 CRUISE	

CG 086_1 Bundled City Cruises Email GM and Director of Marine Ops_Redacted Page 41 of 83

From: LTJG USCG (USA)

To: Ryan Nadeau

Cc: CG835V

Date:Monday, May 16, 2022 11:21:59 AMAttachments:CG 835V SPIRIT OF NORFOLK.pdf

Good Afternoon Mr. Nadeau,

As discussed, attached is your 835 requiring a technician's report attesting to proper repair and operation of your port engine prior to carrying passengers.

Please review, sign, and return and call if you have any questions. Thank you!

Very Respectfully,

LTJG

Sector Virginia

Date: December 15, 2021

Call to Order, Welcome & Attendance

Introductions

Corporate

Call Center

Boston

BHC

NYC

Philly

• Balt-

DC-

PRC-

Norfolk

Chicago

GBL-

NoCal-

SoCal (GLAOC)-

SoCal (SD)

1. City Experiences SafeCruise Program Updates (John)

- Program review
 - o Crew Members should not fill in their own incident report this continuous to occur.
 - o Please proof read.... Grammar, misspelling, complete sentences etc.
 - Timely submission is critical.
 - o Public web forms are now live and being used. This enables any employee to complete an incident form on tablet, phone, or computer.
- If you need team members trained on IS please reach out.
- Safety teams.... Policy info attached. Guidelines below.

Safety Team Composition:

- Representative from each department in the city.
- Members should have adequate experience to represent their area.
- One Port Safety Officer should be
- One manager or senior representative from Sales/Admin, Marine, FOH, and BOH

The City Safety Team will:

- Meet as often as necessary to complete work
- Review incidents and be prepared to discuss one or two that can provide a lesson learned.
- Identify targeted areas to affect change in behavior or physical asset that leads to reduction in incidents.
- Develop recommendations and implementation plans for Safe Cruise team to review.
- Share best practices
- Designate one person to attend/represent the city on the SafeCruise call.

2. Safety Metrics/Trend Reports – Info was sent out yesterday 12/14. Any questions?

3. Incident Reviews:

- We will review the following incidents as they have valuable lessons learned or impacts across the fleet. For each incident we will discuss the following items.
 - a. discussion of root cause
 - b. corrective action/preventative action,
 - c. lessons learned
 - d. Any actions taken & effectiveness.
- Incidents to be reviewed can be found in Industry Safe
 - a. FY21-00247 Auto accident San Diego
 - b. FY21-00226 Seizure BHC
 - c. FY21 -00243 Intoxication San Francisco
 - d. FY21 -00255 High Wind incident DC

Continual Improvements, Best Practices, Lessons Learned

CG 086 1 Bundled City Cruises Email GM and Director of Marine Ops Redacted Page 43 of 83

From: Mary Rinaldo	com>
Sent: Thursday, May 19, 2022 10:34 AM	<u> </u>
То:	
Cc: Jolene Price-thompson	>; Ryan Nadeau
Subject: more on Spirit of Norfolk	

Dan/Christine – it seems after Sunday nights incident there is a larger issue on the SON – pump was replaced and cruises have gone out. The team noticed more smoke last night, called Bay Diesel to come back in. After inspections this morning they found coolant in the oil. Not a great sign. They are taking the top end apart today to determine the root cause, but at first glance they believe this may require a top end rebuild. More to come after inspections.

In the meantime in order to run cruises through the weekend Ryan has called the CG and let them know we will have a tug assist on all cruises until we resolve this. They are securing the tug service now, not easy to do, their typical vendor is short staffed and can't take on the extra work. I believe they have it worked out with another vendor at this point. The cost for this will run max \$1800 per cruise.

Gary and National Marine in the loop and will stay close to this.

We will keep you updated as we know more

Thanks

Regional Vice President - Mid Atlantic City Cruises



only a couple of GFCI type receptacles on the vessel, gives you a choice of installing many GFCI receptacles or a few GFCI circuit breakers.

Recommendation: Replace all receptacles with a high quality 20-amp receptacle. It is also recommended that all your receptacles have a GFCI capability. This can be achieved in one or two ways.

- #1. Use all 20-amp GFCI receptacles.
- #2. Use all 20-amp receptacles that are powered from a GFCI circuit breaker. NOTE: 20-amp receptacle's have a greater holding power than the 15-amp.
- 5. Virtually all the 120-volt 15/20-amp receptacles are not properly securing the devices that plug into them. When these receptacles are installed vertically, it is usual for the top section to go bad first because it is used the most.

 Recommendation: Replace all receptacles on the vessel with a high quality 20-amp receptacle. It is also recommended that all your receptacles have a GFCI capability. This can be achieved in one or two ways.
 - #1. Use all 20-amp GFCI receptacles. (Expensive)
 - #2. Use all 20-amp receptacles that are powered from a GFCI circuit breaker. NOTE: 20-amp receptacle's have a greater holding power than the 15-amp.
- 6. Wait station for first deck bow area.
 - A. A set of 18 individual personal lockers are installed in an area that blocks proper access to the circuit breaker panel that has 24 circuits. These lockers are within one foot of the electric panel.

Recommendation: Remove all or a portion of the lockers.

- B. The 50-amp Leviton plug for the coffee pots does not have a strain relief. The plug cord was wrapped with many layers of tape that did not replace the strain relief. Number on the plug #1D56Y0??.
 - **Recommendations:** Replace the strain relief or the complete plug assembly.
- C. Receptacles: See item #5

CG 086 1

D. The receptacle for the coffee pot (50-amp) has a cord that runs through a hole drilled in the wood frame for the electrical distribution panel. No strain relief for the panel.

Recommendation: Install a strain relief, possibly inside the panel.

E. The coffee pot end of the power cord does not have a proper connector for the coffee pot case.

Recommendation: Dispose of existing connector, shorten cord, and install a proper device for use on a cord.

7. The conduit for the air conditioners on the bow is not properly connected for marine use and is pulled loose on one end.

Recommendation: Reinstall conduit using proper conduit connectors.

8. The electrical disconnects for the Mitsubishi air condition units (2) on the bow do not have proper enclosures for the disconnects.

Recommendation: Install proper disconnects and enclosure for these air condition units.

9. The 120-volt 15-amp receptacle on the bow just outside the door on the right-hand side has an improper cover and poor retention capability. The light in this location is loose and wet. The electric eye cover is off and not operating. Critters were living there.

Recommendations: Replace the light and electric eye utilizing water resistant terminations.

10. The cathodic protection voltages for the two propeller shafts <u>after</u> the vibration couplings are: Port 0.675 VDC

STBD. 0.304 VDC

The engines and hull voltages were 1.075 VDC

The reason for the voltage differential between the two shafts is unknown. Myself and a man that is a lot smarter than I am, have never seen this condition before. What we do know is that when the shaft wipers/brushers are installed, the voltages will be the same and there will not be a problem. The only way to get an answer to the question would be to pull the vessel. It is not worth the effort nor expense.

11. The anchor windless electrical junction box cover is not appropriate for marine use.

Recommendations: Install a marine water-resistant cover on the box.

12. The Bosch heat pump located in the "man overboard" room on the main deck portside has a temperature control wire that is simply stuck through a hole drilled in the sheet metal case, aft end.

Recommendation: Install a proper insulated panel penetration device for this cable.

13. A three-conductor cable that comes from below deck is laying on top of the Bosch plumbing (item #12). The cable has three exposed conductors. As I moved the cable to examine it, one conductor shorted to a water pipe. This

cable was from a 100-amp circuit breaker, in a panel below deck.

Recommendation: Remove the cable. The captain was notified, and he secured the circuit breaker and put lock on it until the cable gets removed or properly secured in a box.

14. A small cable is hanging down behind the Bosch heat pump ducting. The coil has one loose end that looks like a thermostat cable. Could not determine the actual purpose of this dead cable.

Recommendation: Remove this cable. Do not just cut the cable. Determine the purpose and deal with it.

15. The bridge is home to numerous 120-volt electrical devices. These devices far out number the duplex electrical receptacles that are serving them.

Recommendation: See item #5

16. One of the angled windows on the bow of the 01 deck contains a loose cable that is poorly attached and out in the open between windows. It is hanging loose.

Recommendation: Secure the cables and install a proper cover over the cables. Inspect the areas between the other windows and repair as necessary.

17. Space #8 or void/bilge area: This space is well preserved but dirty. No lights and no ventilation. The rudder posts and related linkage are very well lubricated however grease is all over the place. The person that greased this area did well however, clean up was not on his list. Grease is a considerable mess that will make painting very difficult in the future.

A great deal of welding and other work has been done in this area, but preservation of the welded areas has not been addressed.

Old unused piping has not been removed.

Recommendations:

- 1. Clean and paint welded areas.
- 2. Clean up all excess grease to the point of being able to paint these areas.
- 3. Provide lighting
- 4. Provide ventilation
- 5. Establish entry procedure: (one person always on watch).

GENERAL RECOMMENDATIOS

- 1. Purchase the following items, one set for each of your areas of operation.
 - A. GFCI for 110/120/130-volt receptacles. MFR. Harvey Hubbell Inc. determines mili amp and test range Cat. No. GFT-2G
 - B. Receptacle tension tester for 110/120/130-volt, 15 and 20-amp receptacles/devices with three (3) straight blades: hot, neutral and ground.

MFG. Daniel Woodhead, North Brook, IL. Part #1760

NOTE: Your vessels have many items in use that were produced by the "Pauluhn" Company. This company no longer exists. The company that owns the old Pauluhn Company now, stated that they will not produce the Pauluhn products.

Respectfully Submitted,

t by Hornblowe

Date: May 18, 2022

Welcome and RESPECT:

1. City Experiences SafeCruise Program Updates (John)

- Industry Safe Program review
 - The initial report should be completed at the time of the incident and submitted asap.
 - we continue to see a lag time in reporting or initial incluent reports, please remind your Captal s and crew that the public form is available and train them to be able to access it.
 - Please remember that all security and vessel accident/equipment failure incidents should be reported in IS. This is critical for us to identify and assist with any USCG required reporting as vellas as allowing us to track and take corrective action to prevent future accidents or failures.
 - o If you need team members trained on IS please reach out.
- ort Safety Teams
 - We want to start working towards ramping up our teams across the fleet.
 - Progress report on designating a Port Safety Officer. Please notify the NM team of who will file that
 - Tole. We can then work with the 150 to take steps to form the 1012 safety teams.
 - PSO's identified:
 - Newport
 - NorCal
 - Alexandria

2. Safety Metrics/Trend Reports - Available on the IS dashboard

a. We often see an increase of crew related injuries in the spring as our operating season begins and hiring of new employees is in full swing. Please ensure that we are focused on training and acclimating our new and returning shipmates to our unique environment.

3. Incident Reviews:

b.

- We will review the following incidents as they have valuable lessons learned or impacts across the fleet. For
 each incident we will discuss the following items.
 - a. discussion of root cause
 - c. lessons learned
 - d. Any actions taken & effectiveness.
- Incidents to be reviewed can be found in Industry Safe
 - a. FY22-00077 & 00080 Security Threat DC/Sacramento/NM Team
 - b. FY22-multiple intoxication related incidents NM Team
 - c. FY22-00098 Falling object DC
 - d. FY22-00086 Knife in Sink NYC

Continual Improvements, Best Practices, Lessons Learned

Port Safety Officer Duties:

- Facilitates Port Safe Cruise Team Meetings
- Manages and assigns execution of regular inspections
- Manages and assigns execution of Hazard Analysis, ensure is being conducted for routine and non-routine activities with associated hazards
- Manages and assigns posting of Port Safe Cruise Meeting Minutes to Corporate
- Reports out Corrective Actions in Corporate Safe Cruise Meetings
- Ensures Incident Reports are properly completed, Root Cause Analyses are performed,
 Corrective Actions are assigned and followed through to completion
- Attends a 10-hour OSHA Site Worker Certification Training Course
- Assists GM to ensure all departments are conducting pre-shift training talks as per the Corporate Quarterly or ISO Training Talk schedules
- Works with the corporate office and insurance to conduct workplace facility safety inspection for loss control prevention
- Works with GM, HR/ISO Management and Corporate Safety Team, to follow the IIPP and RMS requirements

Other duties as assigned by GM, HR/ISO Management and Corporate Safety Team

From:
To:
Subject: New PM Report

Date: Wednesday, May 11, 2022 1:26:32 PM

All,

Newest PM report through 5.9.22 is completed. The link below will take you to all metrics that are compiled for safety and maintenance. PM report is done every 2 weeks. Safety Metrics every month.

Marine Metrics

National Marine Administrative Manager City Cruises (Anchored by Hornblower)



455 N. CityFront Plaza Drive, Suite 2600, Chicago, IL 60611



From: To: Cc:

Ryan Nadeau;

Subject:

RE: CLAIM ACKNOWLEDGMENT /

Date:

Friday, May 27, 2022 4:22:22 PM

Attachments:

Vessel Vanguard Pro - Spirit of Norfolk Port Main Engine Maintenance.pdf

image003.png

image004.png

All,

In order to limit lost revenue we began repairs on the engine almost immediately after the failure occurred in order to get the vessel back into service. While we were able to operate in a limited capacity, with USCG approval, while the engine was repaired we were required to hire an assist tug to accompany the vessel whenever it was underway. The repairs were completed, inspected and approved by the local USCG marine inspectors yesterday. Our local engine service vendor Bay Diesel inspected and diagnosed the failure and then completed the repairs. Their reports and invoices will be forthcoming as noted below. Below are the answers I have at this time, in red, the remaining responses will be sent as soon as we have the information.

- Current location(s) of the SPIRIT OF NORFOLK The vessel is at it's home berth located at Town Point Park 333 Waterside Dr. Norfolk, VA 23510
- contact name and number to reach in order to arrange inspection as needed? Captain Ryan Nadeau, copied on this email.
- Past maintenance records of vessel and engine attached, the main engines were replaced in February of 2020, which is why the maintenance information only goes back to 2020. All preventative maintenance work completed by our employees is in the attached records, the vendor that made the repairs after this failure has also completed any outside vendor service required. We are pulling any records and will send those to you.
- vessel logs on the day of incident? Forthcoming.
- Past survey reports / USCG reports, etc. of the SPIRIT OF NORFOLK? We will review our records but we don't think have any survey reports pertinent to the engine failure. Do you want the 835 (deficiency the USCG issued after this failure? We will review and remit any pertinent USCG information.
- Photographs of the engine before / after incident? Forthcoming
- Contact name(s) / details of the captain and engineer(s) onboard during the time of incident?
 This will be included when we send over the vessel log. We are not required to staff the vessel with an engineer. The vessel is staffed with a Captain, Senior deckhand, and deckhands.
- Contact name(s) of parties who have worked on the engine on the SPIRIT OF NORFOLK? The service provider is Bay Power Solutions (AKA Bay Diesel) we will provide a contact and the service reports/invoices for this and any previous maintenance or repairs done on the engine since installation.
- Forwarding of the drafted repair plan as noted below once available. The repairs have already
 been completed and all information will be in the reports from the engine vender as noted
 CG 086_1 Bundled City Cruises Email GM and Director of Marine Ops_Redacted Page 53 of 83

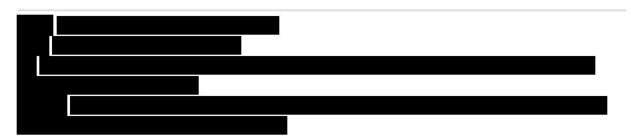
above.

We will follow up to provide the remaining information next week. Please let me know if you have any additional questions.

Have a great weekend!

Regards.

National Director of Marine Operations cityexperiences.com



Good morning John,

We confirm receipt of this new claim.

In order for us to proceed with our review involving the SPIRIT OF NORFOLK, can you kindly assist and forward the following information below at your soonest?

- *Current location(s) of the SPIRIT OF NORFOLK / contact name and number to reach in order to arrange inspection as needed?
- *Past maintenance records of vessel and engine / Past repair records of vessel and engine / vessel logs on the day of incident?
- *Past survey reports / USCG reports, etc. of the SPIRIT OF NORFOLK?
- *Photographs of the engine before / after incident?
- *Contact name(s) / details of the captain and engineer(s) onboard during the time of incident?
- *Contact name(s) of parties who have worked on the engine on the SPIRIT OF NORFOLK?
- *Forwarding of the drafted repair plan as noted below once available

We look forward to receiving the same and will let you know if there may be any additional info that may be required for additional review.

Good morning Paul / Matt,

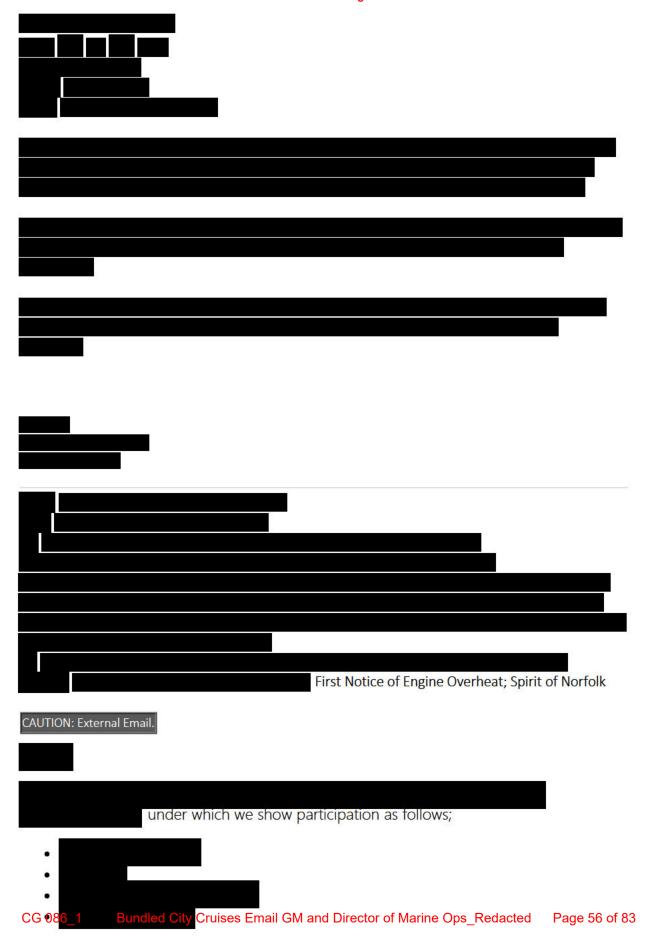
Can you relay the following insurers claim contacts / reference numbers once available?

Thank you all and have a Happy Memorial Day weekend.



The information in this email and in any attachments is CONFIDENTIAL and may be privileged. If you are NOT the intended recipient, please destroy this message and notify the sender immediately. You should NOT retain, copy or use this email for any purpose, nor disclose all or any part of its contents to any other person or persons. Any views expressed in this message are those of the individual sender, EXCEPT where the sender specifically states them to be the views of any members of the Ascot group. We do not accept legal responsibility for the contents of this message and while any attachments to this message may have been checked for viruses, you should





The assured reports there was an overheat of the main engine on the Spirit of Norfolk. The assured is endeavoring to put forth a repair plan that is currently in the \$100k range for approval. The assured is utilizing a tug assist in order for the USCG to allow continued running trips while the repairs are being made. We would like to ask that the tug assist costs are also included in the claim as a mitigation expense.

The assured contact is

d cc

Thank you,

Senior Vice President

Head of Property Claims and Coverage – Pacific Series

Lockton Insurance Brokers, LLC

777 S. Figueroa St., 52 Floor, Los Angeles, CA 90017
Property Claim Team Email: Pacific-PropertyClaim@lockton.com



From: <u>Ryan Nadeau</u>

To:

; Jolene Price-thompson

Subject:

Re: Paul Fleury Report

Date:

Monday, March 21, 2022 11:39:58 AM

Attachments: <u>image001.png</u>

Marine Services Survey.pdf

Hey Gary,

I just got to this in my pile of mail last week. Attached is the Invoice and the list of items he found on his survey. There is a lot of good info in this and we will go through and address as much as we can. My only question for you is, how should this be coded? Are we taking the hit on R&M or is this going to the Capex Budget?

From:

Sent: Friday, March 18, 2022 10:26 AM

To: Ryan Nadeau

Cc:

Subject: Paul Fleury Report

Ryan,

I checked with as a follow up to his visit and to catch up in general. He stated that he sent his Norfolk report and billing to you. If you have received it, please send to the group and I'd like to see the invoice as well since we plan on doing more work with him in the future. Thanks, hope all is going well with you.

Gary

VP Marine Operations

City Cruises

Suite 2600 455 N Cityfront Plaza Drive Chicago, IL 60611





From: Ryan Nadeau

To: <u>Jolene Price-thompson</u> **Subject:** Re: schedules please

Date: Friday, May 6, 2022 10:03:10 AM

Attachments: <u>5.16.22.pdf</u>

5.9.22.pdf 5.2.22.pdf

From: Jolene Price-thompson

Sent: Friday, May 6, 2022 9:07 AM

To: Ryan Nadeau

Subject: schedules please

Thanks!

Jolene Price-Thompson

General Manager City Cruises

109 East Main St, Suite 500, Norfolk, VA 23510



From:
To: Ryan Nadeau

Subject: Re: Senior Deckhand Test
Date: Friday, May 20, 2022 4:32:30 PM

Captain Ryan,

Thank you for sending. While I may not be very familiar with the Repair & Maintenance Questions (ie color coding of the ship's pipes), I know much of this info is in the wheelhouse.

Regards,
Deckhand

On Thu, May 19, 2022 at 2:29 PM Ryan Nadeau wrote:

Here you go Atticus! Let me know if you need help with anything!

From: Sent: Tuesday, May 17, 2022 7:45 AM

To: Ryan Nadeau

Subject: Senior Deckhand Test

Good morning,

I am interested in taking the Senior Deckhand test. What would be good areas to focus on for studying?

Regards,
Deckhand

Sawatzki

From: To: Cc:

Jolene Price-thompson; Ryan Nadeau;

Subject: Date:

Re: Spirit of Norfolk Main Engine Failure Thursday, May 19, 2022 3:16:36 PM

Attachments: image002.png image003.png

image003.png image002.png image003.png

Thanks for update.

Hang in there Ryan & Jolene & we very much appreciate your diligence working through all this. Please track costs and Jolene sounds like this is R&M so we'll want in forecast if so. Dan

On May 19, 2022, at 12:19 PM, wrote:

All,

I'll jump in on Mary's info for updates I have from Ryan & Tim.

- As stated all cruises for weekend covered with tug assist
- After Sunday next cruise is Thurs (others may confirm)
- Mechanical
 - Bay Diesel still dismantling engine for full scope of repairs
 - Current status: replace all cylinder liners & heads parts available coming from IN
 - Mechanics will check main bearings if bad further cost and repair time will be involved
- Timing Bay Diesel estimates (based on knowledge at the moment) having repairs complete for sea trial by Thursday (this is a solid but early forecast)
- Cost TBD upon full scope current ballpark is \$75,000 (repairs only)
- Ryan working up USCG update & revised 2692

Ryan & Bay Diesel have a good handle on this and will keep us posted. Tim & team standing by for support as needed but home team has it in hand at this time.

Gary

VP Marine Operations City Cruises

Suite 2600 455 N Cityfront Plaza Drive Chicago, IL 60611



From:



Subject: more on Spirit of Norfolk

Dan/Christine – it seems after Sunday nights incident there is a larger issue on the SON – pump was replaced and cruises have gone out. The team noticed more smoke last night, called Bay Diesel to come back in. After inspections this morning they found coolant in the oil. Not a great sign. They are taking the top end apart today to determine the root cause, but at first glance they believe this may require a top end rebuild. More to come after inspections.

In the meantime in order to run cruises through the weekend Ryan has called the CG and let them know we will have a tug assist on all cruises until we resolve this. They are securing the tug service now, not easy to do, their typical vendor is short staffed and can't take on the extra work. I believe they have it worked out with another vendor at this point. The cost for this will run max \$1800 per cruise.

Gary and National Marine in the loop and will stay close to this.

We will keep you updated as we know more

Thanks

Regional Vice President - Mid Atlantic City Cruises

cityexperiences.com

Pier 4 580 Water Street SW, Washington DC 20024



 From:
 Ryan Nadeau

 Cc:
 Cc:

Subject: RE: Spirit of Norfolk

Date: Friday, May 20, 2022 9:19:30 AM **Attachments:** image002.png

image002.png

Thanks Ryan



From: Ryan Nadeau

experiences

Sent: Friday, May 20, 2022 9:10 AM

To: D05-SMB-SecVA-Inspections <SecVA-Inspections@uscg.mil>

cruises

Cc:

Subject: Re: Spirit of Norfolk

Hello again,

Just to update you all on where things are with the Spirit of Norfolk. After the cruise Wednesday evening, we identified significantly more smoke than should be anticipated after a repair like in kind to what was done earlier this week with the Water Pump Housing and Turbo Replacement. Bay Diesel came back out Thursday AM and we cruised with a Tug Assist on Thursday while they investigated the problem. Bay Diesel has recommended an overhaul Including but not limited to Replacement of Cylinder Packs, Heads, I/B TurboCharger, and possibly Main Crankshaft Bearing depending on inspection. I would like to continue this repair throughout the weekend while cruising with a Tug Assist. We have a total of 6 cruises this weekend, and have secured the T/V Huntsman for those cruises, which is an 1800 HP Towing Vessel. Bay Diesel will be performing the work and we plan to be ready for Sea Trials either on Wednesday 5/25 or Thursday 5/26. Please reach out to me with any questions, and as always, feel free to swing by and Inspect at any time.

Capt. Ryan Nadeau

Director of Marine Operations

Spirit of Norfolk | Freedom Elite City Experiences



109 East Main Street, Suite 500 Norfolk, VA 23510

From: D05-SMB-SecVA-Inspections < <u>SecVA-Inspections@uscg.mil</u>>

Sent: Thursday, May 19, 2022 10:38 AM

To: Ryan Nadeau

Subject: RE: Spirit of Norfolk

Good Morning Ryan,

Our office will allow operation with Tug Assist. Please insure notification to Pilots to enable traffic mitigation if needed.

Very Respectfully,

Sector Virginia W:

From: Ryan Nadeau <

Sent: Thursday, May 19, 2022 9:46 AM

To: D05-SMB-SecVA-Inspections < <u>SecVA-Inspections@uscg.mil</u>>

Subject: [Non-DoD Source] Spirit of Norfolk

Hello again,

Last night on our Dinner cruise I observed a significant amount of white smoke coming from the exhaust and I have Bay Diesel out right now checking out the problem. Just in case this CG 086_1 Bundled City Cruises Email GM and Director of Marine Ops_Redacted Page 64 of 83

problem is larger than a simple fix, I would like to cruise with a Tug Assist in case we do not have the Port Main repaired prior to cruising. I have a lunch cruise and a dinner cruise today on our schedule. Let me know if this is permitted and I am available for any questions or if you would like to come inspect anytime.

Capt. Ryan Nadeau

Director of Marine Operations

Spirit of Norfolk | Freedom Elite City Experiences



109 East Main Street, Suite 500 Norfolk, VA 23510



Safe Cruise - Incident Management and Reporting

March 2021

HCE SafeCruise



HCE SafeCruise is an integrated system for Hornblower Cruises and Events which includes the Incident Management and Reporting System. The Incident Management and Reporting System will provide guidance and policy on:

- Port SafeCruise Teams
- Port Safety Officers
- Industry Safe -Incident Reporting Process and Form
- Investigation and Corrective Action Policies
- Monthly HCE SafeCruise meeting Hosted by National Marine.



Port SafeCruise Team



- The purpose of the Port Safe Cruise Team is to promote workplace health and safety by increasing the communication, education, and involvement of crew resulting in a reduction of safety incidents and severity, an increase in hazard detection and a positive company safety culture.
- The objective is to increase awareness and accountability of health and safety, increase hazard detection, ensure regular inspections are conducted, identify root causes and execute effective corrective/preventative actions.
- The Safe Cruise Team membership shall be represented by the designated Port Safety Officer and supervisory and non-supervisory employees.
- The Port GM, Port Safety Officer and Human Resources/ISO Management (if applicable) will designate
 the members of the Port Safe Cruise Team members as well as their membership duration.
- Port SafeCruise Team meetings will be held monthly and recorded.

Port Safety Officer



- Designate a Port Safety Officer to lead a Port SafeCruise Team.
- The Port's Safety Officer holds permanent membership in the Port SafeCruise Team
- Member of the Port Management Team.
- Manages and assigns execution of regular inspections and hazard analysis
- Posts of Port Safe Cruise Meeting Minutes to HCE folder on N drive
- Monthly HCE SafeCruise Meetings attendance
- Manages Incident Reports and Corrective Actions at port level

HCE SafeCruise - Reporting Incidents



- All incidents are to be reported regardless of how minor.
- The Incident Report Form will be filled out by hand on scene.
 - Just facts, no opinions or speculation
 - Medical treatment acknowledgment
 - Statement from injured party and witnesses
 - Take photographs, if possible
- Submit the handwritten form to Port Safety Officer or Director of Marine Ops
- PSO or DMO transfers info into Industry Safe and submit the handwritten form to
- Submit any video or photographs to "National Marine /Incidents-Forms, Instructions, Videos" folder



Policy:

1-3a – Incident/Accident Reporting Policy and Instructions
dacted Page 70 of 83

Investigation - Root Cause Analysis and Corrective Actions



The Purpose of Accident Investigations:

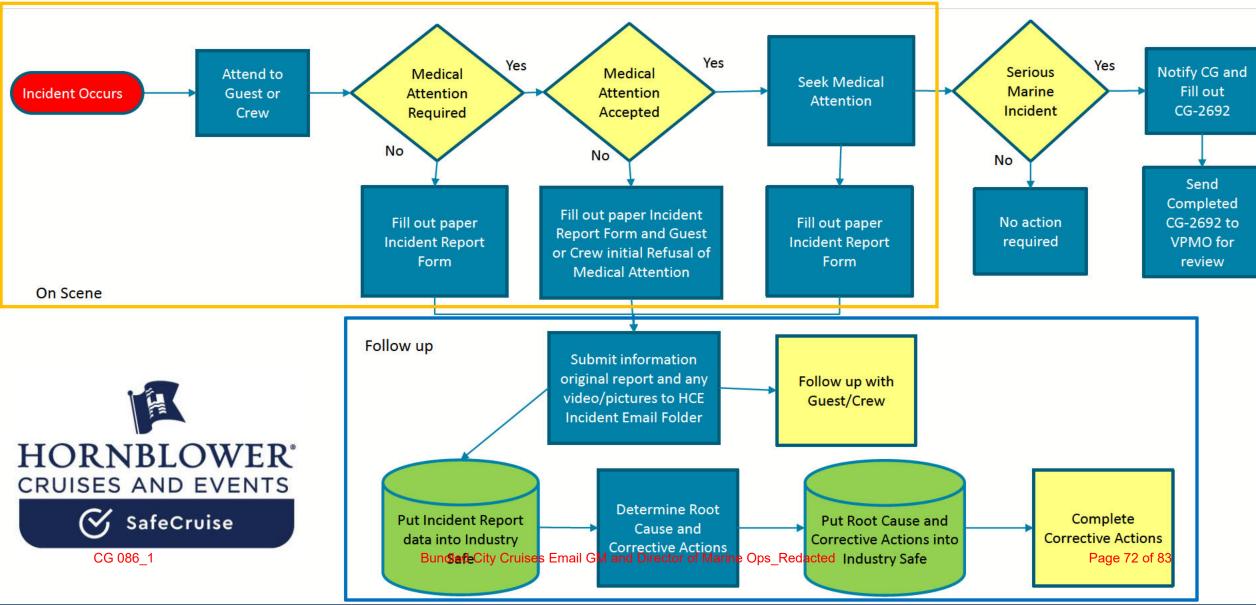
- To prevent or decrease the likelihood of similar accidents.
- To identify and correct unsafe work practices and physical hazards.
- To identify training needs.
- A Supervisor or Manager will conduct the investigation.
- An unbiased approach is necessary in order to obtain objective findings; do not fix blame or find fault.
- Investigations are required for all Class 2 and Class 3 incidents.
- Corrective Actions will be determined and completed.
- The findings will be submitted to and placed into Industry Safe.

 Bundled City Cruises Email GM and Director of Marine Ops Redacted



Incident Management and Reporting 4548 feem



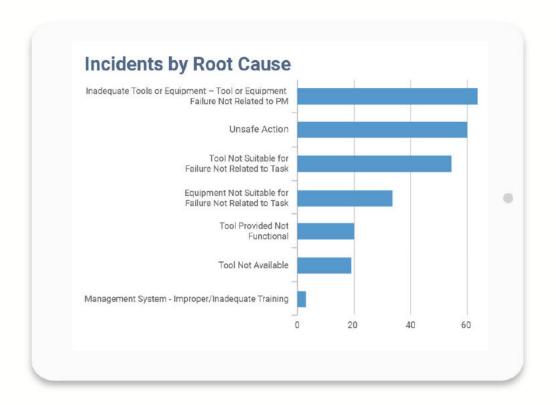






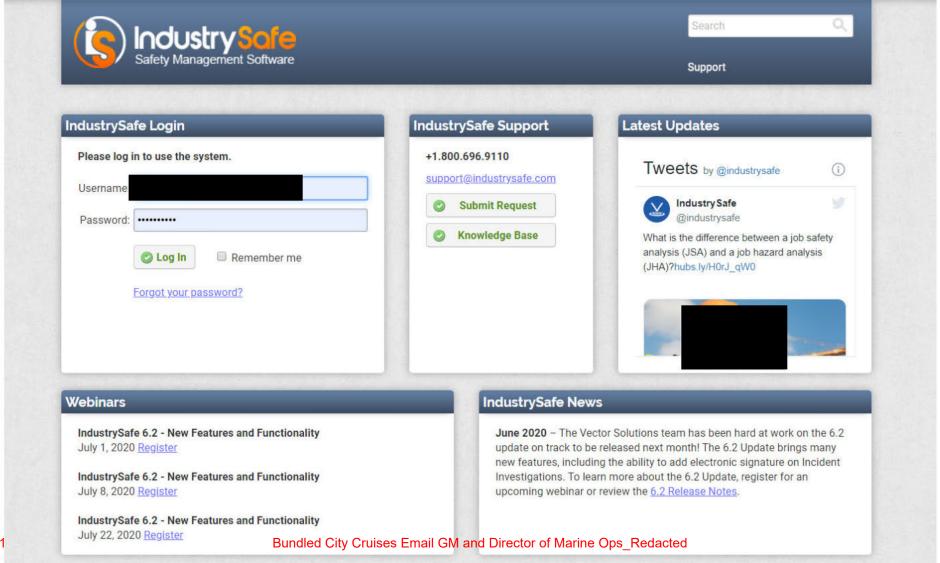
Incidents

- Any type of incident
- Detailed reports
- Automatic notifications
- Link to Corrective Actions & Hazards









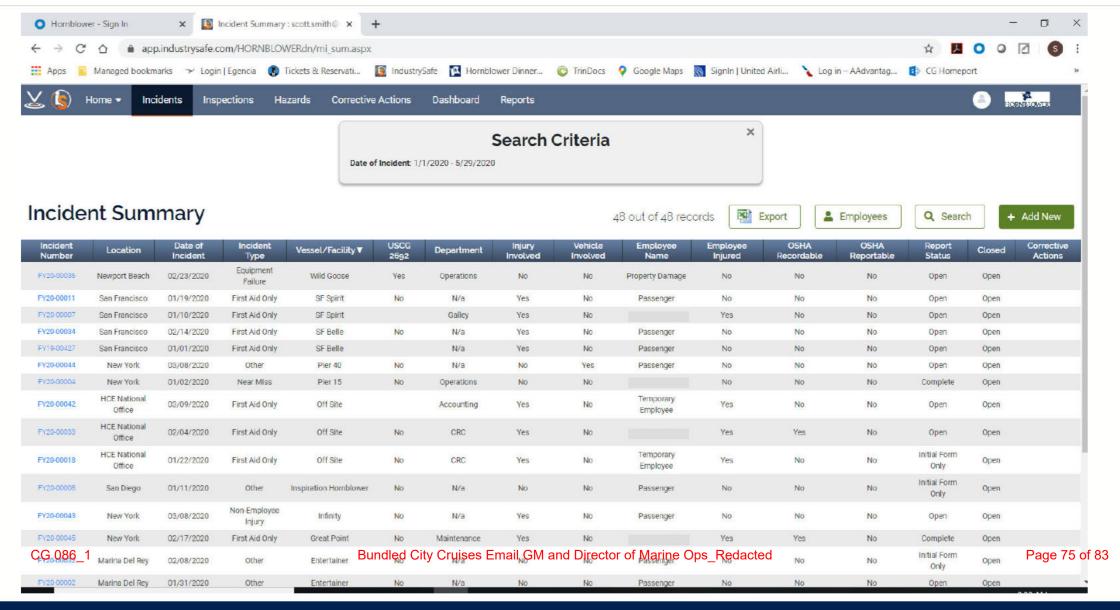
CG 086_1

Page 74 of 83



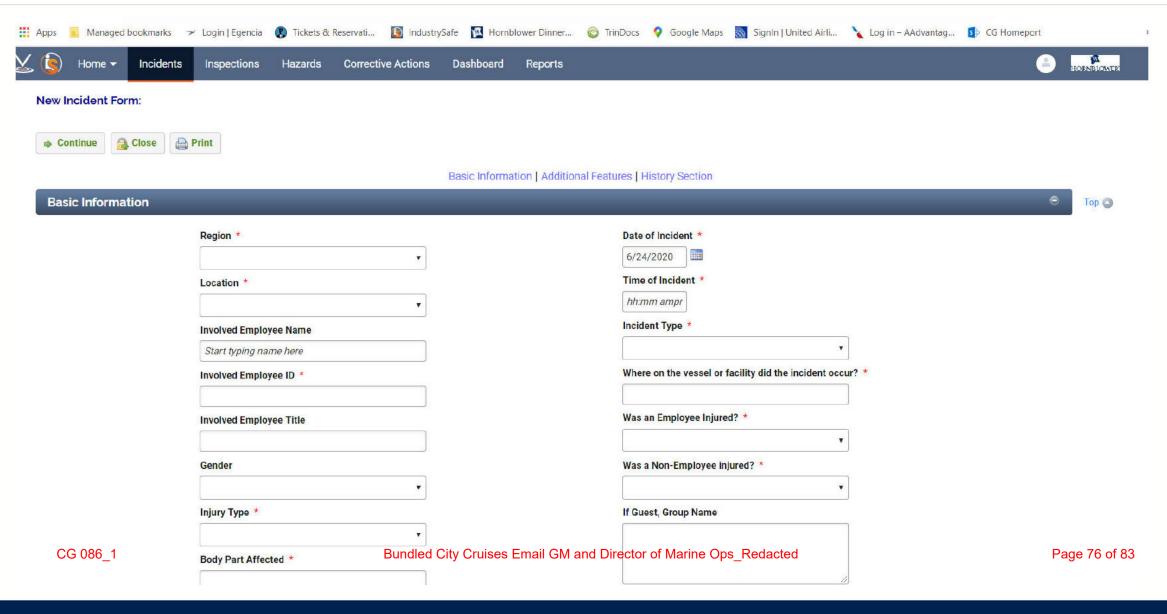










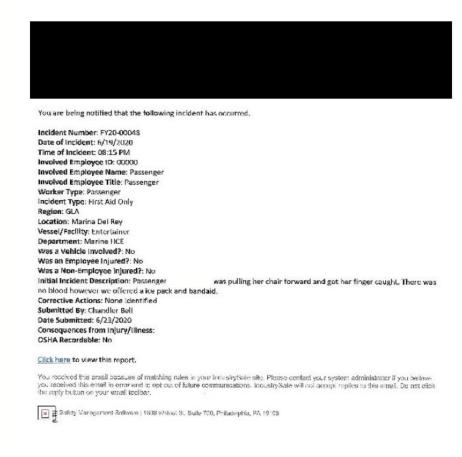






Incident Notification

- All notification requirements still apply based in type of incident
- Those designated IS users get email notification once data is entered

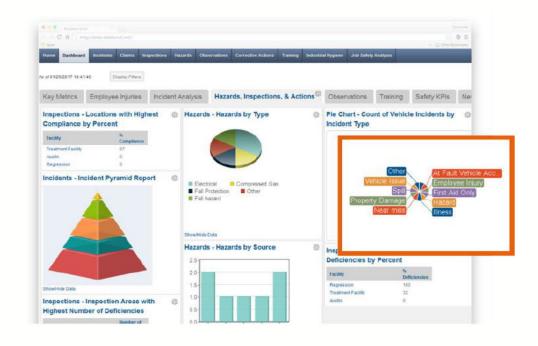






Dashboard

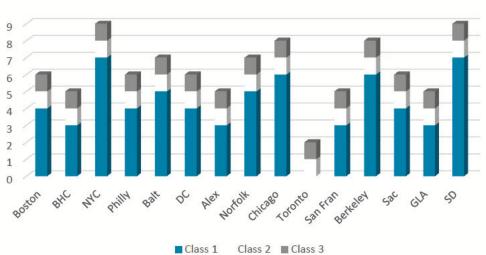
- Display Indicators
- Available to all
- Choose metrics
- Filter by location, time, individual
- Real time











YTD Incidents 180 160 140 120 100 80 60 40 20 0 Boston BHC MTC PhilM Balt DC Allet Motor Chicago Toronto Mocal GLA SD

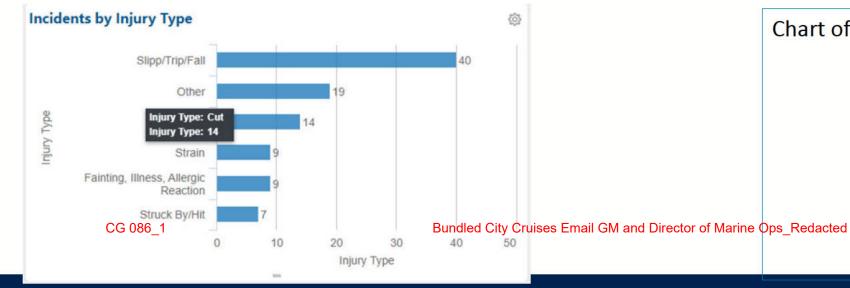


Chart of Class 2&3 incidents/10000 guests

■ Near misses ■ Class 1 ■ Class 2 ■ Class 3

Page 79 of 83



- Meets every third Thursday of the Month
- All HCE Port Safety Officers and General Managers and a Call Center Representative
- Agenda will cover:
 - HCE SafeCruise Program Updates
 - HCE Safety Metrics/Trends Report
 - Round Table Discussion and Port Incident Reviews
 - Specific Call Center Guest Safety Concerns



Questions





CG 086_1

Bundled City Cruises Email GM and Director of Marine Ops_Redacted

From: Ryan Nadeau

To:

Jolene Price-thompson

Subject:

SON Dry Dock Update

Date: Thursday, February 3, 2022 1:58:00 PM
Attachments: SO Norfolk CO 001 - Fender Retaining Bar.pdf

SO Norfolk CO 002 - CG Required Inserts.pdf

Outlook-gbgodswp.png

Hey Scott and Gary,

Just giving you guys a heads up since our last conversation regarding Spirit of Norfolk's current Dry Dock. Below is a list of a few items we have run into.

- Rub rail repair grew to encompass 80' versus the original budgeted 20' we planned on replacing upon inspecting underside of steel channel
- Large Insert around both Engine Room sea chests for HVAC systems
- Large Insert beneath Dishwasher/Exhaust Vent
- Mucking AFT CHT was just completed today, will inspect further once pressure washed by Colonnas
- Large Insert around Port Main Shaft Packing

We have identified various framing around inserts that is currently being addressed, but the bulk of steel work scope has been outlined. With all of that being said, we are probably about 100k over the original 250k budget as of now, with potential to land between 350k-400k. We are pushing these guys as hard as we can, and hope to be out next week, but it looks like the week of 2/14 that this thing is getting splashed. Let me know if you have any questions!



Director of Marine Operations Spirit of Norfolk | Virginia Elite City Experiences



109 East Main Street, Suite 500 Norfolk, VA 23510

Bay Diesel Corporation

DATE: March 1, 2021

COMPANY: Hornblower / Spirit of Norfolk

ATTN: Ryan

PHONE:

E-MAIL: RFQ#:



QUOTATION

QUOTED BY:

QUOTE NUMBER: AC01032021A

FOB:

DELIVERY: PAGE

OF Valid for 30 Days

EQUIPMENT: Scania D16's and Cat 3406's

LOCATED AT: Waterside

SCOPE OF WORK: Quotation is to provide labor to perform tune ups on the Scania D16 MDE's and Caterpillar 3406 SSDG's on the Spirit of Norfolk. Findings will be furnished to customer in a report at the completion of the job.

Qty	Part Number	Description	Unit Price	Extended
			= 0	
16	LABOR	2 men, 1 (8) hour day	110.00	1,760.00
1	TRUCK	Local Truck Charge, Discounted	50.00	50.00
3.0			•	-
			-	=
			-	
			5.0	-
			60	5
			(50)	7 ₹3
			(- 0)	
				H-1
			:=d	H-1
				-
			141	
			× .	1
			120	= 1
			120	in the second
			20	-
			21	*
			-	-
			-	-
			-	
			O.I.	1.00
			I 50	9 5 9

NOTES AND EXCEPTIONS

- Bay Diesel Terms & Conditions apply. See attached or visit www.baydiesel.com for details.
- 2.) Payment terms are Net 30 with an open account or by prepayment.
- Quotation does not include the cost of repairing hidden damage. A separate estimate will be provided for additional repairs.
- 4.) This equipment will be out of service during repair.
- A cancellation or restock penalty will apply to all special order parts.

Total	1,810.00
Environmental Fees	I
Estimated Freight	
Applicable Tax	
GRAND TOTAL	\$ 1,810.00

Approved By		
Date		

Purchase Order Number

3736 Cook Boulevard Chesapeake, Virginia 23323 3026 Wentworth Avenue NW Roanoke, Virginia 24012

700 Semmes Avenue Richmond, Virginia 23224

(757) 485**00**7**5**086 1 Bundled City Cruises Email (5/10)201d-D020ctor of Marine Ops Redacted (757) 485-0232 Fax (540) 301-3602 Fax

Page 8(804) 230-3495 (804) 230-3497 Fax