

April 4, 2011

Richard Negrin
City of Philadelphia
Deputy Mayor for Administration & Coordination and Managing Director
Municipal Services Building
1401 JFK Boulevard, Suite 1430
Philadelphia, PA 19102-1683

Dear Mr. Negrin:

Thank you for meeting with our team in your office on March 31 with Messers. Collins and Abernathy. Though we have been extremely frustrated by the delay in getting to this point we were pleased to have the opportunity to hear specific questions and provide specific responses. Further, we appreciate your statements of support and appreciation for the professionalism of our team. Per your request, we offer the following summary of our discussion and points of agreement reached during our March 31 meeting.

As you know, RTDI has a history of safe operations spanning over 30 years and over 12 million passengers. In this time we have constantly sought to improve and develop both our tour procedures and our vehicle maintenance and engineering. In our eight year history in Philadelphia, it is important to understand our casualty statistics:

- 28 USCG marine "casualties" (as defined in 46 CFR 4.05-1) in eight years over 42,000 trips. This is a rate of 0.067% for all tours we have conducted in Philadelphia since 2003. More than 99.9% of our tours were successfully completed without casualty and we never experienced an on-water passenger injury before the incident of July 7, 2010.
- Of those 28 casualties, only 20 required on-water tows. This is a tow rate of 0.048%.
- Significantly, a review of the 28 casualties reveals that only 2 (a self-clearing debris issue and the allision on July 7, 2010) occurred in 2010, a tow rate of roughly .029%.

Each casualty is recorded and investigated and measures taken to address the cause of each casualty. These measures could include training, changing or enhancing a mechanical procedure, engineering a mechanical solution or instituting a policy across our entire fleet. This does not happen only in Philadelphia. Nationwide, our fleet personnel have a robust communication plan that includes bi-monthly conference calls for the Maintenance and Safety departments, corporate Service Bulletins, national and local operations and training procedures, audits, and membership

with industry partners in the Passenger Vessel Association, the Maritime Advisory Committee, USCG Auxiliary, Maritime Exchange, and Pilots Association. Additionally, RTDI has written procedures regulating our operation which include:

- Delaware River Operating Plan (approved by the USCG)
- RTDI Safety Procedures, Operations Manual, and numerous company training and policy procedures
- COI restrictions
- DOT restrictions
- Annual, Daily and recurring Preventative Maintenance programs

Other information about our vessels and organization, including engine and cooling systems, can be found in the NTSB's docket of published Engineering Factual Report, Operations Factual Report, and numerous other documents culminating from 8+ months of research and investigation.

In addition to the casualty information, I would also like to remind you of other operational and safety measures we are taking for tour operations in the city of Philadelphia:

- We have expanded our operating "Go-No Go" plan, which is published in our Delaware
  Operating Plan. All operators are trained and understand their duties and limitations. The
  Duck captains and MaRC boat Captains may, at any time, abort their operations due to
  weather or other conditions that they deem unsuitable.
- We have rented a slip in the Pier 5 Marina where our MaRC boat will be located.
- We have implemented procedures to address extreme weather conditions. We will
  continually monitor conditions to ensure vehicle and passenger operations are conducive
  with the environment.
  - We are installing a National Oceanic and Atmospheric Administration ("NOAA")
    weather alert radio on the MaRC boat in addition to monitoring Local Notices to
    Mariners ("LNMs") and weather reports from our office. Mariners are made aware
    of conditions daily and updated immediately of changes via radio or Nextel.
  - We do not operate in conditions of ice or lightening/thunderstorms. During days
    of extreme heat, vehicles will be continuously monitored for abnormal engine
    indications and attended to or taken off line if any abnormal condition exists.
  - Per your request, although our season does not begin annually until March, we are purchasing a quickly deployable life raft of sufficient size to be placed on the MaRC boat to respond to any situation with multiple individuals in cold water.
  - All Ducks have hard-wired VHF Digital Selective Calling radios for emergency response in addition to VHF handheld radios. The operators are trained on and practice procedures for use and emergency use of these radios.
  - The USCG and the Maritime Advisory Committee ("MAC") are aware of our procedures as well.
- Captains who operate the MaRC boat either have or will pursue a towing endorsement to their marine license.
- MaRC boat has all required lighting per USCG Navigation Rules International/Inland.

## Richard Negrin April 4, 2011

 The MAC is aware of our communications; however, we will further brief it on our operations and Delaware Operating Plan at the June 2011 meeting and discuss our radio communications plan.

Finally, I think it is obvious that we understand and share the City's commitment to safety. To help in that endeavor, we will voluntarily:

- Participate with the city and other operators if the City were to run safety and response
  drills with first responders. We are committed to leading safety initiatives within our
  industry and are working on similar initiatives with the Passenger Vessel Association.
- As a courtesy to the City, send a copy of any Form 2692 that we file with the USCG, which identifies casualty information discussed above, to the City.

So you are aware, we have formally proposed to the NTSB that the City consider adjusting the timing of the sludge barge operation to off-peak times when passenger vessels and recreational craft are not operating on the river. We appreciate that you have required a physical lookout posted on the bow of any City barge but feel adjusting the schedule would be commensurate with the level of changes we have made to our operation to go "above and beyond" to ensure public safety.

Respectfully,

Greg Blumenthal General Manager

Attachment 1: Letter to Mayor Nutter (March 9, 2011)

Attachment 2: Letter to Mr. Negrin (March 24, 2011)

Attachment 3: Excerpt from NTSB Engineering Factual Report "4.7 Postaccident Action"



The Honorable Michael A. Nutter Mayor of Philadelphia Philadelphia City Hall, Room 215 Philadelphia, PA 19107-3290

## Dear Mayor Nutter:

I have been asked by Richard Negrin & Brian Abernathy to share in greater detail our operational and safety plans, which I am pleased to do. I write in a spirit of partnership; the City is an important stakeholder and I want you and your staff to be comfortable with and supportive of our operation.

Our safety program is woven throughout our operation in countless ways. We publish up-to-date Safety Procedures each year and we work closely with external regulators as well as our internal Safety team to ensure that we are constantly improving in this area that is vitally important to us – not only from a business sense but also from a moral sense. Running a safe operation is simply the right thing to do, period.

We are leaders in our industry with a 30+ year history of working closely with the USCG and others in vehicle design, industry education, and safe operation. Our vehicles have an incredibly successful operating history – not a single serious injury on the water until July 7, 2010 when a barge pushed by a distracted operator ran over our vehicle while we were at anchor, despite multiple confirmed radio calls. Over the prior 30+ years our vehicles have safely carried well over 10 million passengers in 9 states, and in Philadelphia alone we had safely carried over 1 million people on over 42,000 trips without serious incident until July 7. Mechanical failures on the water are extremely rare but our improvements will help to ensure that we won't experience another tragedy like this again.

Our vehicles are safe and our team works to constantly improve. Accordingly, we have not sat idle since July. Much of what I list below has been in place for years; other items are new since last summer (shown in blue font). Taken as a whole it will give you confidence in the professionalism and safety of our operation.

Redundant systems on Ride The Ducks vehicles ("Ducks"):

- Every Duck has two batteries
- Every Duck has two fuel pumps
- Every Duck has two steering cables
- · Every Duck has two VHF radios
- · Every Duck has three air horns
- Every Duck has two ring buoys (only one is required)
- Every Duck will have four infant Personal Flotation Devices' (PFDs) (none are required)
- Every Duck has 32 PFDs for persons 90 pounds and under (only four are required)
- Every Duck has 38 PFDs for persons 90 pounds and over

The Honorable Michael A. Nutter March 9, 2011 Page 2

We have implemented the following for our Philadelphia operation for 2011 – again, new items/improvements are in blue font:

Purpose built 25 ft rigid hull Response Boat equipped with twin (redundant) 135 hp motors when
only one is needed to quickly and safely hip tow a disabled vessel.

#### The Response Boat is:

- Equipped with 3 VHF radios and an Automated Identification System (AIS) that are monitored continuously by the licensed master (Captain)
- Equipped with custom length A, B and C tow hook up points and line lengths with fast connect hooks that are able to tow a Duck in the event of lost propulsion or steering
- Only operated by licensed Captains who have mastered tow configurations with tides in both directions
- o The first on and last off the river every operating day
- Positioned on Pier 5 Breakfront within our Operating Area on the Delaware where there
  is clear line of sight for miles beyond the Operating Area
- Philadelphia Marine Police will participate in our 2011 contingency & mutual aid plan
- Created a standard method of communication on the company channel 72 between the Response Boat Captain and the Duck Captain should a No Go situation be present
- No Ducks enter the water and Operating Area when there is inbound deep draft vessel or tug and barge configuration are within .5 nautical miles of the Operating Area
- Reduced Operating Area width by 200 feet or 66% compared to Ride The Ducks' historical approved Operating Area
- USCG standard quarterly drills including fire, man overboard, loss of propulsion, loss of steering and abandon ship are conducted on the water and in the class room every 3 months
  - o Approximately 120 hours of training per Captain from July 2010 thru 2011 opening
- All Captains and Deckhands are AED, CPR/First Aid certified
- Captains participate in Bridge Resource Management training and discussions will be ongoing through the operating season
- Captains participate in Situational Awareness training and discussions will be ongoing through the operating season
- Captains take an annual boating safety course
- Mechanics will complete a variety of 9 Automotive Service Excellence (ASE) certification modules
- RTD is a member of:
  - o Maritime Exchange
  - o Mariners Advisory Committee
  - o Passenger Vessel Association
  - USCG Auxiliary
- Our GM and his designees attend Society of Naval Architects and Marine Engineers meetings
- All Ducks have 2 VHF radios and Nextel direct connect push to talk cell phone for continuous communication with company dispatch
  - o In-dash VHF monitors 13 and 16 while hand held VHF monitors company channel 72
- Response Boat has 3 VHF and AIS
  - o Licensed master will monitor 13, 16, 72 and AIS through the entire operating day
- Maritime exchange daily vessel traffic report is updated twice a day and will be communicated and posted for all RTD Captains' knowledge
- All Ducks will have AIS transceivers
- · Repositioned distress flag and anchor ball for added visibility and accessibility
- Electrically driven air horn is rewired to work with battery switch in the off position

The Honorable Michael A. Nutter March 9, 2011 Page 3

- Revised safety briefing narration and actions
- Philadelphia Marine Police are contacted at the beginning and end of every operating day

In addition to the above items it is my understanding that Mr. Negrin has requested that we answer the following three questions:

- 1. Why did our Captain not contact the USCG before the barge ran Duck 34 over?
- 2. What is our Company cell phone policy?
- 3. What is our Company tow policy?

## QUESTION 1 – WHY DID OUR CAPTAIN NOT CONTACT THE USCG BEFORE THE BARGE RAN DUCK 34 OVER?

Capt. Fox was managing an "incident", not an emergency, until he realized the barge was bearing down on him and had not changed course. This is a critical distinction. USCG channel 16 is for emergency and distress calls and when Capt. Fox initially called for a Company tow as per procedure there was no emergency, only a routine (though rare) mechanical issue. His next series of calls, on channel 13 directly to the bridge of the tug & barge, were to *avoid* an emergency. Once he realized the barge had not changed course as he testified it had appeared to be doing (due to its "crabbing" approach), it was too late to make a call – his first priority had to be the safety of his passengers. Our 2011 operations manual emphasizes the importance of notifying the USCG in the event of any "abnormal situation on the water."

## QUESTION 2 - WHAT IS OUR COMPANY CELL PHONE POLICY?

No personal use of cell phones is permitted in guest view or while on tour. Captains are permitted to carry their personal cell phones in a bag while on tour but they must be kept on silent or vibrate mode.

#### **QUESTION 3 – WHAT IS OUR COMPANY TOW POLICY?**

It has been our successful policy and practice for over three decades and millions of safe passengers not to tow with passengers on board the "pulling" duck. Our installation of the Response Boat means that our response time will now be roughly 3 minutes and we'll be in a position to provide a very safe and effective "hip" tow for the disabled duck out of the channel and into the protected area near our ramp for egress out of the water either under its own power or via straight line tow from another Duck as appropriate.

I am confident your review of the above points, in conjunction with your review of the USCG approved Delaware River Operating Plan and your experience working with us before and since the July 7 accident will give you comfort that our operation will be safe and positive for the City of Philadelphia, its visitors, and residents. Please call me directly at 678-993-1900 if you have any questions. We look forward to a continued successful partnership with the City.

Sincerely,

Chris Herschend President

CC: Richard Negrin, Brian Abernathy



March 24, 2011

Mr. Richard Negrin
City of Philadelphia
Deputy Mayor for Administration & Coordination and Managing Director
Municipal Services Building
1401 JFK Boulevard, Suite 1430
Philadelphia, PA 19102-1683

Dear Mr. Negrin:

I am in receipt of your letter dated March 23. Per your request, below I've addressed your queries.

- Please define "average casualty rate." The rates provided by the U.S. Coast Guard (USCG) in the NTSB report are subject to significant variance. Our on-water "USCG marine casualty" rate in Philadelphia is less than .067% of total trips. Statistically speaking we complete more than 99.9% of our trips without incident. Our ratio per vehicle, which would perhaps be more comparable to the USCG MISLE database (which does not track excursions or trips), is less than ¼ of the industry average as best we can identify.
- Engine and cooling system are long-standing, proven designs approved by the USCG. We
  designed the vehicle's cooling system specifically to allow it to function very reliably in
  amphibious environments.
- We are willing to discuss courtesy inspections by City personnel qualified to inspect
  amphibious vehicles, subject to understanding the timing and planned use of the
  inspections. As you know this would be in addition to our own 2x daily inspections, our
  external audits, and frequent USCG inspections.
- Our Coast Guard approved operating plan contemplates this action both during any abnormality on the water via notification of marine police and certainly we can notify the City after-the-fact as well just as we do for the USCG.
- I need to better understand the nature of the concern to respond more fully to this question.

Mr. Richard Negrin March 24, 2011 Page 2

I appreciate and share your concern for the safety of our guests, and I appreciate your frequent statements of appreciation for our cooperation and consistency throughout these past 8.5 months. As you know our operating plan was approved last August by the USCG. Our cooperation, our strong 33+ year safety record and our USCG-approved Delaware River Operating Plan all point to a clear path forward. While we work together to continue to improve, the City should agree to allow our seasonal business to resume operation as soon as possible. Given your indication of a decision by the end of the month, we are planning for an early April re-opening.

Respectfully,

Chris Herschend President

# EXCERPTED DIRECTLY FROM NTSB FACTUAL REPORT/PUBLIC DOCKET RELEASED MARCH 2011 REGARDING JULY 7, 2010 ALLISION OF CARRIBBEAN SEA AND DUKW 34

## 4.7. Postaccident Action<sup>44</sup>

## 4.7.1. Coast Guard.

4.7.1.1. Immediately after the accident, RTDI voluntarily suspended its operations and shortly thereafter, the Coast Guard issued inspection deficiency reports to all operational RTDI APVs in Philadelphia. <sup>45</sup>The Coast Guard action,

<sup>&</sup>lt;sup>43</sup> According to the Coast Guard inspectors report dated July 15, 2010, the following equipment was inoperative: VHF marine radio, fuel vapor detector, bilge alarm, air horn, heat detector audible alarm, and electric bilge pumps, In addition, some safety equipment was missing from the vessel, such as lifejackets, portable lights, stern light, anchor and rope, and gas tank label.

<sup>&</sup>lt;sup>44</sup> The information contained in the section came principally from the respective parties to the Safety Board's investigation and has not been verified by the NTSB.

<sup>&</sup>lt;sup>45</sup> The inspection requirement dated July 16, 2010, was issued to each of the remaining 14 operational APVs in the Philadelphia fleet. By the form CG-835, the Coast Guard required that –Vessel not authorized to operate in the Delaware River with passengers. Any proposals regarding new route must be submitted & approved by the cognizant OCMI.II

#### Engineering Factual Report DCA-10-MM-025

effectively prevented RTDI from immediately resuming APV operations in Philadelphia.  $^{46}$ 

4.7.1.2. In response to the inspection requirements issued after the accident, RTDI submitted a revised Operations Plan to the Coast Guard that was approved on August 27, 2010. The plan added provisions that eliminated the waterway interaction with deep draft vessels by adding processes that improved safety, communications and assistance efforts to disabled vessels.

## 4.7.2. Ride The Ducks International.

- 4.7.2.1. <u>Immediate actions</u>. Immediately following the accident, RTDI suspended operations at all its locations and initiated a review of safety and operational procedures. In addition, the company held training classes for all masters, operators, and mechanics, company-wide. All operations were suspended for at least 2 days while every APV at each of its operating locations underwent a full inspection of engine compartment, fire-fighting systems, and safety equipment. According to RTDI, only a few minor (non-safety) discrepencies were found and they were corrected immediately.
- 4.7.2.2. <u>Safety equipment</u>. A full review and inspection of all onboard safety equipment was conducted. RTDI repositioned some safety equipment (including the distress flag and anchor ball, now pre-mounted on poles and held in place by quick-release clips) for better visibility and accessibility to the master.
- 4.7.2.3. <u>Horns:</u> The fixed air horn electrical supply arrangement was modified to allow operation of the horn regardless of position of the engine ignition switch. In addition, a second hand-held air horn was added and mounted in the cockpit away from the masters station.
- 4.7.2.4. Radios: All RTDI APVs were outfitted with hand-held VHF radios in addition to the previously existing hard-wired dash-mounted radio, to provide maritime communication redundancy and monitoring capability. RTDI affirmed and clarified communication procedures both internally and with Coast Guard for both APVs and the response boat in the event of an on-water incident. Radios and horns were evaluated for effectiveness. Radio procedures were enhanced, including a requirement for two VHF radios at each location. At one of its operating locations, RTDI installed radio repeaters at appropriate locations to enhance radio communication.
- 4.7.2.5. <u>Safety briefing:</u> RTDI standardized and re-scripted the complete pre- water-entry safety briefing for all its operating locations to include, among other things, a standardized formal live demonstration of how to put on a personal flotation device. The safety briefing planned was to be translated into multiple

Page 23 of 34

<sup>&</sup>lt;sup>46</sup> According to RTDI management, the City of Philadelphia took no action against their permits, but expressed a preference that RTDI not resume operations on the Delaware River, and expressed a preference for RTDI to resume operations on the nearby Schuylkill River. RTDI's formal request to operate on the on the Schuylkill River was later denied by the City of Philadelphia.

languages and made available onboard for passengers in the 2011 operating season.

- 4.7.2.6. Response boat: RTDI purchased a custom-built, dedicated response boat to maintain line-of-sight of the entire Delaware River operating area during the entire water portion of the APV tours and to provide coordination and rapid assistance when necessary. This boat was outfitted with VHF radios and an automatic identification system (AIS), and was to be manned by a licensed master.
- 4.7.2.7. Waterways management: RTDI joined the Maritime Exchange, Marine Advisory Committee and USCG Auxiliary to improve communication with other river users and to receive local notice of pertinent river conditions and planned vessel activity. RTDI consulted with third-party marine consultants, participated in safety conferences and solicited industry partners for marine safety. RTDI formed mutual- aid pacts with local marine operators and held meetings with vessel operators' leadership in all of their operating locations to improve their awareness of each other's routes and intentions. RTDI also coordinated with other industry members and organizations to increase awareness of these issues.
- 4.7.2.8. Route: A route study of each operating location was conducted with managers and operations personnel. Masters were encouraged to attempt to make landfall if at all possible while handling any water emergency, as appropriate.
- 4.7.2.9. <u>Procedures review</u>. RTDI conducted a review of all manuals, forms, and procedures. Focus and intent was to clarify procedures and facilitate training. All locations contributed to content particular to their operations and any differences were briefed.
- 4.7.2.10. <u>Safety management system (SMS)</u>. RTDI compared the company safety procedures and other directives with the Safety Management System (SMS) used by other operators. RTDI concluded that its existing processes were more comprehensive and were aligned with other Herschend Family Enterprises Corp (HFEC) properties, therefore making internal reporting easier and clearer. However, in the interest of clarity in the marine industry, RTDI began translating their procedures, processes, and safety systems into the SMS-type format. Additionally, RTDI began working with the Passenger Vessel Association (PVA) to assist other passenger vessels with the same task, as RTDI will be the first in the industry to adopt this system.
- 4.7.2.11. <u>Audits</u>. Audits (including paperwork procedures, daily operations, OSHA compliance, driver safety, and mechanical procedures) of all locations were conducted by an outside engineering firm. Multi-day site visits were made with the audit team, the Director of Fleet Operations, the Safety Specialist, and a senior member of RTDI Fleet Operations/Maintenance. According to RTDI, results were positive and any deficiencies found were corrected on the spot.

- 4.7.2.12. <u>Engine bay attention signs</u>. RTDI installed caution signs on the underside of all APV engine bay hoods to ensure safety and service completion are highlighted.
  - 4.7.2.13. <u>Training program:</u> The 2011 training program for operations personnel, masters, deckhands, safety representatives, and mechanics was reviewed. According to RTDI, significant improvements were made, including stronger requirements for each department to enhance development and internal promotion.
    - 4.7.2.13.1. <u>Masters/deckhands</u>. Masters and deckhands will complete bridge resource management and situational awareness training, and company compliance training in addition to their safety training, emergency procedures training, driver's training, and training in U.S. Coast Guard requirements.
    - 4.7.2.13.2. <u>Mechanics</u>. All mechanics will enter training to achieve appropriate National Institute for Automotive Service Excellence (ASE) certifications.
      - 4.7.2.13.3. Operations personnel. Operations personnel will engage in FEMA Crisis Management training. The Safety Director has already completed this course and will also attend the Coast Guard's Crisis Management Course.
      - 4.7.2.13.4. <u>Training aids.</u> Visual and/or tactile training aids are being developed for more comprehensive operator education of the propulsion and steering systems.
      - 4.7.2.13.5. New hires. Enhanced –new-hirell mechanic and master training was established.
  - 4.7.2.14. <u>Personnel actions:</u> A former safety specialist promoted to the position of Safety Director has reviewed all procedures for the 2011 operating season and has made site audit visits of all RTDI locations. Additionally, RTDI named a specific –safety representativell at each location to be a forward point of contact for any safety issues.
    - 4.7.2.14.1. The proficiency levels of mechanics that had the most contact with APV before the accident were evaluated. One mechanic did not possess competencies and commitment that met the standards of RTDI. He was given additional training in both technical and professional areas. He did not progress satisfactorily and his employment was terminated.

#### 4.7.3. K-Sea Transportation.

- 4.7.3.1. <u>Training seminars</u>. Held training seminars for vessel crewmembers where duty distraction was stressed.
- 4.7.3.2. <u>Policy reviews</u>. Reviewed various safety policies, including cell phone policy, watchstanding policy, and others. K-Sea updated its cell phone policy to prohibit use of personal cell phones while on duty.

## Engineering Factual Report DCA-10-MM-025

4.7.3.3. <u>Safety review</u>. K-Sea hired a consultant to observe the company's movement of the barge and to make safety recommendations.

4.7.3.4. <u>Contract modification</u>. The city modified its contract with K-Sea to required that the tug boat be opereated from the upper wheelhouse when towing a light barge.

3/7/2011

X T. K. Roth-Roffy

Thomas K. Roth-Roffy, P.E. Engineering Group Chairman