September 21, 2020

Sandra Cashman
Executive Secretary

Jennifer Buigut
Associate Director for Policy and Regulatory Affairs
Division of Global Migration and Quarantine

Centers for Disease Control and Prevention
1600 Clifton Road NE, MS V18-2
Atlanta, GA 30329

RE: Docket No. CDC-2020-0087

Dear Ms. Cashman and Ms. Buigut:

We write to urge the U.S. Centers for Disease Control and Prevention (CDC) to extend its “No Sail Order” for cruise ships until federal regulations are in place to protect the health and safety of all prospective cruise passengers, crew and national and international port communities from all the various risks posed by cruise ships. Cruise ship companies must demonstrate their obligation to protect public health and the environment by publicly committing to address their negative impacts on passengers, crew, communities, coastal and marine ecosystems, and the climate. Without these types of changes, there is no guarantee that the health and safety of passengers, crew, and port communities will be protected. The necessary changes include – but are not limited to cruise ship companies publicly reporting:

- Public commitment and implementation plan to achieve zero emissions by 2050, starting with slow steaming.
- Immediately switching fuels to marine gasoil (MGO) and installing efficient particulate filter systems for engine fuel combustion exhaust.
- Ending the dumping of untreated or poorly treated waste in our oceans.
- Compliance with requiring all prospective passengers and crew to have COVID-19 antibodies and follow any other CDC-approved public health protocols.
- Installation of new HVAC systems and maintenance and performance of waste treatment systems.
- Ensuring air pollution and absolute GHG reductions.
The urgency of addressing these issues is highlighted by the demonstrated history between cruise ships and the spread of COVID-19, in addition to the link between climate change and the increased risk of pandemics. Additionally, due to the large numbers of people cruise ships carry, significant governance steps need to be taken, including:

- Limiting occupancy to ensure social distancing guidelines can be adhered to amongst both passengers and crew
- Limiting the size and frequency of onboard gatherings
- Installation of advanced and efficient onboard air filtration systems certified to remove pathogens, to counteract the spread of any infectious disease and ensure they are not spread between cabins of crew and passengers
- Enhanced sanitation and airflow
- Adherence to contact tracing measures

Cruise ships spread disease during a pandemic. They are a threat to public health. There is no such thing as "safe cruising" during a pandemic. Only when cruise ship companies have taken these and other steps will they have earned back the public's trust and demonstrated sufficient commitment to protect public health and the environment. We urge you to extend the “No Sail Order” for cruise ships. We elaborate in the Sections below.

Cruise Ships

POINT #1: The COVID-19 pandemic is not the first event in which cruise ships have been a vector for disease. This highlights the urgency for the CDC to address the risk that cruise ships pose both onboard and on shore.

Consider the references below for others.


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1 “How Climate Change Is Contributing to Skyrocketing Rates of Infectious Disease”
● The Journal of Infectious Diseases: Traveler's Diarrhea at Sea: Three Outbreaks of Waterborne Enterotoxigenic Escherichia coli on Cruise Ships (2000)


● CNN: “Nearly 500 on 2 Princess cruise ships stricken by Norovirus” (2012)

● Epidemiology and Infection: An outbreak of Cyclospora infection on a cruise ship (2012)

● USA Today: “Second Cruise Ship in a Week Hit by Illness” (2014)

● CDC: Gastrointestinal Disease Outbreak Log for International Cruise Ships

● Newsweek: “Cruise Lines With the Most Virus Outbreaks in 2017” (2017)

● NBC: “Cruise Ship Nightmare” (2017)

● CDC: Archive of Infectious Diseases on Cruise Ships - Archive of listed infectious breakouts on cruise ships over the years.

POINT #2: Cruise ships are conduits for pandemic due to their confined spaces and unsanitary environments.

During a pandemic, cruise operators have a proven track record of failing to prevent further outbreaks and protect the health of passengers, crew and onshore communities. Due to the confined spaces on board and population densities, these ship environments lend themselves to rapid contagion spread, and the sanitation practices notoriously cut corners, leading to further spread. It is simply not safe to resume cruising until after the pandemic is resolved.

● Air conditioning systems spread aerosolized virus
  ○ The New York Times: Aboard the Diamond Princess, a Case Study in Aerosol …
  ○ Aerosol inhalation main way coronavirus spread on Diamond …
  ○ USA Today: As cruising resumes in some parts of world, multiple cruise ships affected by new COVID-19 cases
  ○ Reuters: At least 40 infected with COVID-19 on Norway cruises amid scramble to trace passengers
  ○ “Air recirculation role in the infection with COVID-19, lessons learned from Diamond Princess cruise ship.” Orouba Almilaji, Peter W Thomas (July 9, 2020.)
• Cruise Law News: “Three Costa Crew Members Test Positive for COVID-19”
• SeaTrade Cruise News: “Study finds aerosol inhalation likely main way coronavirus spread on Diamond Princess.” (July 2020)
• WHTC: Four crew members on Norway cruise ship hospitalized with COVID (July 2020)

POINT #3: The vast majority of cruise ships burn the dirtiest, cheapest fuel available, heavy fuel oil (HFO). HFO not only contributes to climate change, but also puts the health of passengers, crew, and port communities at risk. It is also known that exposure to air pollution increases the risk of severe respiratory illnesses.
• Stand.earth: Investigation: Air quality on Carnival Corp cruise ships can be worse than some of world’s most polluted cities
• MFAME: Air Quality on a Cruise Ship Deck Is Alarming (2017)
• Dr. Matt Loxam: Potential health effects of shipping-related PM
• Business Insider: An undercover investigation reveals air quality on a cruise ship deck could be worse than the world’s most polluted cities (2017)
• Oceanwise: Port Emissions and Side Effects on Health (2019)
• ZME Science: A single cruise ship can emit as much particulate matter pollution as a million cars
• The Telegraph: Revealed: Why going on a cruise should come with a health warning (2017)
• PLOS (Public Library of Science): Particulate Matter from Both Heavy Fuel Oil and Diesel Fuel Shipping Emissions Show Strong Biological Effects on Human Lung Cells at Realistic and Comparable In Vitro Exposure Condition
• NABU: Extreme air pollution levels found on deck of cruise ship (2017)
• WHO: 7 million premature deaths annually linked to air pollution (2014)
• Current Opinion in Pulmonary Medicine: Pulmonary Health Effects of Air Pollution (2016)
• British Medical Bulletin: Air pollution and infection in respiratory illness (2003)
• Circulation (Cardiac AHA Journal): Cardiovascular Effects of Ambient Particulate Air Pollution Exposure (2010)
• Environmental Health Perspectives: Early Childhood Lower Respiratory Illness and Air Pollution (2007)
• Proceedings of the World Engineers Convention: Chemical Characterization of Heavy Fuel Oil for Combustion Modelling (2011) “Heavy fuel oil is chemically very complex consisting of many different compounds. Complete characterisation of HFO is impractical if not impossible”
• *Transportation Research: Transport and Environment*: Evaluating the social cost of cruise ships air emissions in major ports of Greece (2015)

• Nordic Council of Ministers: A review of fate and behaviour of HFO spills in cold seawater, including biodegradation, environmental effects and oil spill response (2018)

• International Council on Clean Transportation: Heavy fuel oil is considered the most significant threat to the Arctic. So why isn’t it banned yet? (2016)

• HFO Free Arctic: Ecological, Economic and Social Impacts of Marine/Coastal Spills of Fuel Oils (2016)

• Norwegian Maritime Authority (Sjøfartsdirektoratet): Possible Hazards for Engines and Fuel Systems Using Heavy Fuel Oil in Cold Climate (2016)

• *Harvard University*: Exposure to air pollution and COVID-19 mortality in the United States (preprint, 2019) This study found that a small increase in long-term exposure to PM2.5 leads to a large increase in COVID-19 death rate.

• *Environmental Pollution*: Measuring the impact of air pollution on respiratory infection risk in China (2018) This study found that worse air quality in China may increase transmission of infections that cause influenza-like illnesses.

• *Annals of the American Thoracic Society*: The association between respiratory infection and air pollution in the setting of air quality policy and economic change (2019) A study of nearly 500,000 New York residents found that higher particulate matter air pollution levels increased the chances of hospitalization for pneumonia and emergency department visits, especially for influenza.

• *Scientific Reports*: Airborne transmission may have played a role in the spread of 2015 highly pathogenic avian influenza outbreaks in the United States (2019) Researchers have found that several viruses, including adenovirus and influenza virus, can be carried on air particles. This recent paper finds that particulate matter likely contributed to the spread of the 2015 avian influenza.

• *Biomedical and Environmental Sciences*: Relationship between ambient air pollution and daily mortality of SARS in Beijing (2005) During the SARS epidemic in 2003, this study found that increases in particulate matter air pollution increased risks of dying from the disease. SARS is a coronavirus, like COVID-19.

**Cruise Ship Operators**

**POINT #4:** Cruise ship operators have a long history demonstrating they cannot be relied upon to take the actions necessary to protect public health. Cruise ships companies’ irresponsible choice to continue to sail during the pandemic played an active role in spreading COVID-19.
These corporations knowingly and willfully continued to operate cruise ships at a time when the Diamond Princess had already demonstrated the risks. The choice to continue cruising after pandemic outbreaks onboard reflects a profound and systemic failure of leadership. Allowing potentially infected passengers to disembark and travel home via public transportation was extraordinarily irresponsible. These choices put public health at risk, and demonstrated once again how cruise companies fail to prioritize the health and safety of passengers, crew, and communities. Cruise ships cannot be trusted to provide safe passage, especially during a pandemic. Examples of such behavior include:

- **Australia:** [Ruby Princess operators face class action after coronavirus outbreak on cruise ship](https://www.bloomberg.com/news/articles/2020-04-22/flooding-claims-show-cruise-industry-s-health-cover-up). Eight hundred people have joined a class action against the operators of the Ruby Princess over its "misleading and deceptive" conduct surrounding the COVID-19 outbreak in March.
- **Miami Herald:** [Cayman records first COVID-19 death. Italian man was on same cruise as Puerto Rico couple](https://www.miamiherald.com/news/coronavirus/crimes/article246700189.html). A 68-year-old Italian man, who became the Cayman Islands' first confirmed coronavirus patient and its first virus-related death Saturday, was on the same Italian cruise ship carrying Puerto Rico’s two first COVID-19 cases.
- **New York Times:** [Passengers Fell Ill With Coronavirus. And the Ship Sailed On.](https://www.nytimes.com/2020/04/20/world/europe/cruise-coronavirus.html). Even as Covid-19 sickened passengers, the Costa Luminosa was slow to act to prevent infections, despite two previous serious outbreaks on its parent company’s ships.
- **The Guardian:** [Timeline of Ruby Princess Outbreak](https://www.theguardian.com/world/2020/apr/20/coronavirus-ruby-princess-cruise-ship-virus). The cruise line knowingly allowed all passengers to disembark without testing or other precautions, helping COVID-19 to spread throughout Australia and internationally.
- **Japan:** [Total lack of virus precautions onboard quarantined cruise ship](https://www.bloomberg.com/news/articles/2020-04-22/flooding-claims-show-cruise-industry-s-health-cover-up).
- **The Virgin Islands Daily News:** [More cruise ships are leaving U.S. waters, avoiding CDC COVID-19 reporting requirements](https://www.vindy.com/news/national-news/more-cruise-ships-are-leaving-u-s-waters-avoiding-cdc-covid-19-reporting-requirements-1.14371983). Ships are being moved from US ports so the CDC will no longer have access to data - putting passengers at even greater risk.
- “80% of cruise ships in U.S. waters from March 1–July 10 were affected by Covid-19.” [U.S. Centers for Disease Control](https://www.cdc.gov/coronavirus/2019-ncov/cruise-lines.html).
• “Cruise ships spread Covid-19 throughout the Caribbean, and caused 50% of all cases in Trinidad and Tobago.” *Miami Herald*

• “Cruise ship-linked cases of Covid-19 accounted for 17% of all known cases in the U.S. during February and March.” *U.S. Centers for Disease Control*

• “In Australia, a Covid-19 outbreak on Carnival’s Ruby Princess caused the closure of two local hospitals and over 25% of the country’s deaths from the disease.” *Wall Street Journal*

• "It is clear that cruise ships infected with COVID-19 are large ships." Scientists from Tokyo Institute of Technology analyzed 594 cruise ships worldwide, with an average size of 1,238 passenger capacity. Only one of the infected ships had a passenger capacity smaller than 1300." *The cruise industry and the COVID-19 outbreak."

• *Washington Post*: Cruise lines lobbying to reopen against advice of public health officials (July 2020)

• *Daily Beast*: Norwegian Cruise Line told sales staff to lie to customers about coronavirus (March 2020)

• *The New York Times*: As COVID spread, cruise lines continued to spend millions on advertising (March 2020)

POINT #5: Cruise lines have shown that they do not have effective policies and protocols in place to repatriate crew members when an outbreak occurs, providing that the home countries are willing to accept the crew members.

Lifting the no sail order would subject crew members to the mental health risks of unexpected long months at sea, opening the door for further infection and allowing cruise ships to continue their exploitative labor practices. Cruise lines have not been held accountable for sharing accurate statistics of COVID-19 infected passengers and crew, and have yet to prove that they will remedy this. Months after repatriation efforts began, crew members are still arriving to their home countries and testing positive for the virus. This puts the crew members and public citizens at risk. Numerous crew member deaths occurred onboard the cruise vessels since April 2020 that have not been acknowledged formally, nor has an action plan been shared to mitigate loss of life at sea.

• *USA Today*: 12,000 crew members still on cruise ships in US waters months after COVID-19 pandemic shut cruising down (August 2020)

• *Washington Post*: ‘Held hostage’: Cruise employees were stuck on a ship and forced to work without pay, lawsuit says (August 2020)

• *CNN*: 36 crew on Norwegian cruise ship positive for coronavirus. (August 2020)
• **Al Jazeera**: Four crew members on Norwegian cruise ship in hospital with COVID-19 (July 2020)

**Effects on Local Ports of Call**

**POINT #6: Infections onboard can overwhelm local healthcare infrastructure, and spread infection to port communities.** Many cruise port cities have a limited number of hospital beds, putting the lives of passengers, crew, first responders, health care workers, and port community members at risk. In addition, waste streams from idle cruise ships threaten the environment and public health. Communities are worried about COVID.

- **Anchorage Daily News**: Alaska’s first cruise ship of 2020 returns to port early after passenger tests positive for COVID-19 (August 2020)
- **KTOO.org**: Wrangell, AK opposed to exempted small cruises docking to avoid spread of COVID (May 2020)
- **TIME**: Norwegian officials fear exposure in coastal villages after August cruise (August 2020)
- **Maine Public Radio**: American Cruise Lines blocked from Bar Harbor, ME over COVID concerns (August 2020)
- **Lower Keys Medical Center in Florida is licensed for only 176 beds, and maintains only 7 ICU beds**
- **The Intercept**: Carnival pressured Caribbean nations with already-overwhelmed health systems (March 2020)
- **Juneau Empire**: City declares emergency to prevent cruise ship from docking (March 2020)
- **The Intelligencer**: Florida officials oppose arrival of cruise ships in a state with health infrastructure already stretched thin (April 2020)
- **KPBS.org**: Coast Guard tells COVID-infected ships to stay away from overwhelmed US ports, potentially forcing equally overwhelmed Caribbean nations to take them in (April 2020)
- **The Telegraph**: Mapped: The cruise ports that have closed due to coronavirus (March 2020)
- **Washington Post**: Cruise ships are scrambling to find open ports for passengers stuck in the coronavirus shutdown (March 2020)
- **Economic Times**: India’s ports in chaos as coronavirus lockdown hits operations
- **The Independent**: Coronavirus: UAE bans cruise ships in bid to stop virus spreading (March 2020)
- **The Maritime Executive**: Canada Extends Cruise Ban Effectively Ending 2020 Cruise Season (May 2020)
Cayman News Service: Cayman’s first COVID-19 case causes HCCI to close.
Health City Cayman Islands, the largest hospital in the Cayman Islands, closed down for two weeks after a cruise passenger became the Cayman Islands’ first COVID-19 case. The passenger embarked on a cruise on February 24 from Ft Lauderdale Florida and arrived in the Cayman Islands on February 29.

Cruise Ship Industry

POINT #7: Undue political influence

Cruise ship companies spend millions of dollars in lobbying and campaign contributions to gain undue access to and influence over legislators and regulatory agencies. Their goal appears to be a regulatory environment with minimal oversight. Cruise ship companies then take advantage of lax legal and regulatory regimes to put their bottom line before the health and safety of passengers, crew and communities. This is evidenced by the industry’s global lobbying efforts to reopen during an active global pandemic when their operations have a track record of outbreaks and transmission of the disease beyond the ship itself. Cruise ship companies also intentionally flag their vessels outside of the countries they are incorporated and headquartered in - countries with little regulatory oversight and some of the weakest public health, environmental and labor laws in the world. Flags of convenience allow cruise ship companies to avoid not only more stringent health, safety, labor, and environmental laws, but also helps them avoid paying higher corporate taxes.

- Carnival Cruise lines steering clear of Jamaica and Caymans Carnival Cruise Line decided not to dock in Jamaica or Cayman Islands after those countries refused to allow an MSC Cruises ship to come ashore amid COVID 19 fears (March 2020)
- Cayman Compass: Carnival reroutes ship back to Cayman (March 2020)
- Cayman News Service: CIG [Cayman Islands Government] denies clash with Carnival, as ships bypass Cayman Local and international media have reported on the fact that Carnival, one of the two cruise lines partnering in the government’s cruise port project, has rerouted these two ships from both the Cayman Islands and Jamaica this week. Carnival also threatened to divert the Carnival Paradise, which was scheduled to arrive Tuesday, away from Cayman,
but then reverted to its published itinerary after the apparent intervention of Tourism Minister Moses Kirkconnell.

- Cruise Lines International Association: CLIA Political Action Committee
- US Senate: Commerce Committee Hearing (2012)
- Open Secrets: CLIA PAC donation records for the past seven election cycles (2008-2020)
- Univision Noticias and Columbia School of Journalism: From Cruise Industry Investigators to Top Executives
- Univision Noticias and Columbia School of Journalism: An American Industry Under Foreign Flag
- *Politico*: Coronavirus on the high seas: Why the U.S. can't touch cruise lines (2020)
- *The Hustle*: The Economics of Cruise Ships (March 2020)
- *Cruise Law News*:
  - Cruise Industry Spent $2,505,094 Lobbying Congress This Year, $36,389,955 Since 1997 (2011)
  - Did the Cruise Industry Sabotage the New Cruise Crime Law? (2012)
  - Royal Caribbean Uses Illegal Lobbyist to Conceal Cruise Fares (2014)
  - Foreign-Flagged Cruise Industry Spends Millions of Dollars Lobbying U.S. Congress (2016)

**POINT #8**: Cruise ship companies have a track record of breaking environmental laws even where there are higher environmental standards, as demonstrated by the recent repeated criminal conviction of Carnival Corp for breaking US environmental laws and attempting to cover it up.

- *Miami Herald*: **We're victims of Carnival's illegal dumping, Bahamas and Alaska residents tell courts** (2019)
- Alaska Public Media: **Dumping in Glacier Bay National Park** (2019) Carnival fined for negligent dumping of 22,500 gallons of waste into Glacier Bay NP
- *Cruise Junkie*: **Ongoing Archive of Hundreds of Recorded Fines for Environmental Violations**

POINT #9: Cruise ship companies have historically been highly profitable. Given their margins, these corporations could have chosen to hold themselves accountable to higher standards. Unfortunately, their business model demonstrates that maximizing profits takes precedence over public health and the environment. Industry-wide, cruise lines enjoy net margins of 17%, nearly double the average of some comparably large hotel chains: Carnival: $3.2B net profit (17% margin), Royal Caribbean: $1.8B net profit (19% margin), and Norwegian: $955m net profit (16% margin).

- *Cruise Law News*: **By incorporating overseas, Carnival only pays 1.1% of profit in total corporate taxes** (2011)
- *The Hustle*: **The Economics of Cruise Ships** (March 2020)
- *NBC*: **Most cruise lines don’t pay federal income tax** (March 2020)
- *Forbes*: **Cruise industry revenues grew at 7.2% per year over the 2010s** (January 2020)
- *Statista*: **Royal Caribbean profits over the last decade** (February 2020)

POINT #10: Cruise ships operations are optional, non-essential leisure travel and are not critical infrastructure. There is no urgent need for the resumption of cruising during an ongoing pandemic, particularly when these ships may increase the risk to public health.

Cruise companies have demonstrated that their interest is their bottom line. During a global pandemic is not the time to put the health of our communities and our responsibility to protect public health at risk for an industry that has a track record of such irresponsible behavior. Until cruise companies address all their negative impacts on our air, water, climate and communities, they should not be allowed to return to sea. Jurisdictions such as Australia have already clearly demonstrated the need to protect public safety over leisure travel, **banning cruise travel until at least December 2020**.
Thank you for your work to protect the health and safety of cruise ship workers, passengers, and cruise port communities. We respectfully request that you extend the no sail order until after the pandemic is resolved.

Sincerely,

Kendra Ulrich  
Shipping Campaign Director  
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Kendra Klein, PhD, Senior Staff Scientist  
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