



Carnival Corporation's Exhaust Gas Cleaning Technology Installed on 60 Percent of Fleet

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World's largest leisure travel company on track to expand its breakthrough environmental technology to more than 85 vessels across its global fleet through 2020
Company's \$400 million investment to develop and deploy systems improves quality of air emissions, reinforces commitment to environment

MIAMI, Feb. 27, 2017 /PRNewswire/ -- [Carnival Corporation & plc](#) (NYSE/LSE: CCL; NYSE: CUK), the world's largest leisure travel company, today announced it has completed the installation and certification of Exhaust Gas Cleaning Systems (EGCS) on an industry-leading 60 ships across its brands. Representing a \$400 million investment to date, the company is on track to develop and deploy its systems on more than 85 vessels across its global fleet through 2020 – significantly improving the quality of air emissions from its ships and reinforcing its environmental commitment.

First announced in 2013, the company broke new ground in engineering a proprietary technology to successfully function in the confined spaces of a cruise ship to reduce sulfur compounds and particulate matter from a ship's engine exhaust at any operating state of a ship – at sea, during maneuvering and in port. The systems enable Carnival Corporation to meet international regulations that place a cap on sulfur content of fuel oil at 0.1 percent. In addition to mitigating costs for low-sulfur fuel, the systems further the company's sustainability goals to continue reducing the intensity of carbon emissions while improving the overall quality of emissions.

"Our Exhaust Gas Cleaning Systems represent advanced environmental technology, and underscore our company's strong commitment to responsible sustainability practices," said Mike Kaczmarek, vice president of corporate marine technology for Carnival Corporation. "Due to the success we have had with improving air quality with our systems, we have expanded our commitment to install and deploy this technology from an original 32 vessels to over 85 through the end of 2020. This is part of our ongoing focus on evaluating new technologies, employing new shipbuilding techniques and implementing energy-saving initiatives throughout our fleet to protect the health and vitality of the oceans, seas and communities in which we operate."

Carnival Corporation's Exhaust Gas Cleaning Systems, known for their ability to clean – or "scrub" – exhaust from high-sulfur fuel, are currently installed and certified on 17 Carnival Cruise Line vessels, 13 Holland America Line vessels, 10 Princess Cruises vessels, seven Costa Cruises vessels, five AIDA Cruises vessels, four P&O Cruises UK vessels, three Cunard vessels and one P&O Cruises Australia vessel. The installation schedule for the remaining vessels will be forthcoming.

Carnival Corporation pioneered adapting a proven land-based exhaust gas cleaning technology into a marine system that is suitable for the restricted spaces available on cruise ships, leading to a significant development in shipboard environmental technology.

The sulfur reduction program is in line with other proactive steps Carnival Corporation has taken to reduce its carbon footprint, including the adoption of LNG – the world's cleanest burning fossil fuel. In 2015, AIDAsol from the company's AIDA Cruises brand was the first cruise ship in the world to be supplied with power by an LNG Hybrid barge and, last year, the newly delivered AIDAprima became the first cruise ship to routinely use LNG with a dual-fuel powered engine while in port. By 2019, with the introduction of the first of seven fully LNG-powered vessels, Carnival Corporation will be the first cruise company in the world to use LNG to power cruise ships both while they are in port and on the open sea.

"With the International Maritime Organization, the Cruise Lines Industry Association and various government organizations all calling for improved efficiency in clean operations, we see the installation of exhaust cleaning systems and use of clean fuels as steps to future-proof our fleet," said Kaczmarek. "We are proud to be ahead of the curve in meeting the upcoming regulations and guidelines."

Information on Carnival Corporation's sustainability initiatives, including exhaust gas cleaning systems and other industry-leading initiatives, is available on the [sustainability section](#) of its website.

About Carnival Corporation & plc

Carnival Corporation & plc is the largest leisure travel company in the world, with a portfolio of 10 cruise brands in North America, Europe, Australia and Asia comprised of Carnival Cruise Line, Fathom, Holland America Line, Princess Cruises, Seabourn, AIDA Cruises, Costa Cruises, Cunard, P&O Cruises (Australia) and P&O Cruises (UK).

Together, these brands operate 102 ships visiting over 700 ports around the world and totaling 226,000 lower berths with 19 new ships scheduled to be delivered between 2017 and 2022.

Carnival Corporation & plc also operates Holland America Princess Alaska Tours, the leading tour companies in Alaska and the Canadian Yukon. Traded on both the New York and London Stock Exchanges, Carnival Corporation & plc is the only group in the world to be included in both the S&P500 and the FTSE 100 indices.

Additional information can be found on [www.carnival.com](#), [www.fathom.org](#), [www.hollandamerica.com](#), [www.princess.com](#), [www.seabourn.com](#), [www.aida.de](#), [www.costacruise.com](#), [www.cunard.com](#), [www.pocruises.com.au](#) and [www.pocruises.com](#).

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