

# News From Royal Caribbean Cruises Ltd.

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For Immediate Release

## **ROYAL CARIBBEAN STEAMING AHEAD TOWARD GLOBAL EMISSIONS STANDARDS**

MIAMI – December 22, 2014 – Royal Caribbean Cruises Ltd. (NYSE/OTC: RCL) will retrofit 19 of its ships with advanced emissions purification (AEP) systems, underscoring its commitment to meet or exceed important environmental standards. These systems, also known as scrubbers, will remove more than 97% of the sulfur dioxide emissions generated by the ships' diesel engines.

The move will position RCL ahead of all forthcoming International Maritime Organization Emission Control Area emissions standards, and will ensure compliance with existing European Union standards. Additionally, the decision to install AEP systems instead of switching to a fuel with a lower sulfur content will ensure that RCL's ships can be compliant everywhere they sail, as availability of lower-sulfur fuels is limited.

Royal Caribbean Cruises Ltd. has been involved in development, testing and planning for the use of AEP technology since 2010. Two newly built RCL ships that entered into service this year, Royal Caribbean International's *Quantum of the Seas* and TUI Cruises' *Mein Schiff 3*, were among the first cruise ships to be built with AEP systems installed during initial construction. Royal Caribbean International's *Liberty of the Seas* has been operating one of its six engines with a retrofitted AEP system for two years. AEP systems "scrub" exhaust gases by injecting high volumes of water spray into the exhaust stream, removing more than 97% of sulfur dioxide emissions.

"AEP technology for maritime vessels is very new, and we expect that by utilizing multiple technological solutions to accommodate the differences among our ships, additional development will ultimately help industrialize AEP technology even more, which will benefit not only RCL but also the larger maritime industry," said Adam Goldstein, President and COO, Royal Caribbean Cruises Ltd.

The company faced significant challenges in order to accommodate the AEP systems on its existing ships – some pieces of which can be as large as a school bus, an entire system having an operational weight of several hundred tons of equipment and liquids. "A retrofit project of this size and complexity – and the scale and intricacy of the research, planning, and design required – is unprecedented for our company, and has required a very systematic process and involved the world's leading expertise in this field," said Harri Kulovaara, Executive Vice President, Maritime, Royal Caribbean Cruises Ltd.

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To ensure the right systems are available for each ship's unique requirements, RCL contracted two different AEP technology suppliers, Swedish company Alfa Laval and Finnish company Wartsila. Additional companies are being hired to execute the installations.

"In addition to the teamwork it takes within our own company to execute a program of this magnitude and make all the necessary process improvements, the collaboration with government agencies has been key," Goldstein said.

"Working with our fleets' flag states, the United States Environmental Protection Agency, the United States Coast Guard, and Transport Canada to explore technology development has been critical, and we are eager to continue to work with these agencies to explore whether there are additional environmental benefits to using these systems," said Goldstein.

Beginning in January 2015, installation will take place on 13 Royal Caribbean International ships and six Celebrity Cruises ships, during scheduled dry-dockings and while ships are in service. While preliminary work has begun on several of the ships receiving AEP systems, most will take place between 2015 and 2017. Each installation will take approximately eight months.

AEP systems that scrub sulfur particles from exhaust streams are one of several different emissions reduction tools that RCL employs. Another focus is using less fuel, to further the company's goal of reducing its carbon footprint – a typical measurement of greenhouse gas emissions. To use less fuel, RCL has implemented hundreds of energy-saving initiatives throughout its fleet. Several new approaches were taken in building Quantum of the Seas, including a full-hull air lubrication system that reduces friction between the ship and the water, which can result in up to seven percent energy savings depending on ship speed and itinerary; a keycard-operated master switch for lights and air-conditioning in guest staterooms that reduces unnecessary energy usage; and the use of only LED or fluorescent lights.

Anticipated costs for the AEP program have been estimated and included in RCL's capital expenditure and capacity guidance.

Royal Caribbean Cruises Ltd. (NYSE/OTC: RCL) is a global cruise vacation company that owns Royal Caribbean International, Celebrity Cruises, Pullmantur, Azamara Club Cruises and CDF Croisieres de France, as well as TUI Cruises through a 50 percent joint venture. Together, these six brands operate a combined total of 42 ships with an additional seven under construction contracts, and two on firm order. They operate diverse itineraries around the world that call on approximately 490 destinations on all seven continents. Additional information can be found on [www.royalcaribbean.com](http://www.royalcaribbean.com), [www.celebritycruises.com](http://www.celebritycruises.com), [www.azamarclubcruises.com](http://www.azamarclubcruises.com), [www.pullmantur.es](http://www.pullmantur.es), [www.cdfcroisieresdefrance.com](http://www.cdfcroisieresdefrance.com), [www.tuicruises.com](http://www.tuicruises.com), or [www.rclinvestor.com](http://www.rclinvestor.com).

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