





ROYAL CARIBBEAN INTERNATIONAL DEBUTS NEXT LEVEL OF ENVIRONMENTAL AND SAFETY FEATURES ONBOARD OASIS OF THE SEAS AND ALLURE OF THE SEAS

Royal Caribbean International has always made every effort to be a leader in sustainable cruise ship design and innovation, and *Oasis of the Seas* is the latest example of the use of leading technologies to develop ships that minimize our environmental footprint and maximize our contribution to conservation. With the debut of *Oasis of the Seas*, the most energy-efficient and technologically-advanced ships ever built, Royal Caribbean will not only set a new standard in cruise vacation experience, but also raises the bar on safety and environmental arenas, thanks to the most sophisticated design and resources commercially available. These advancements also have be applied to sister ship, *Allure of the Seas*, which launched in November 2010.

Environment

The scale of *Oasis of the Seas* allows Royal Caribbean to provide a trend-setting guest experience from one of the most energy efficient cruise ships ever built. Designed with energy efficiency and carbon footprint in mind, and committed to improving energy efficiencies, Royal Caribbean tests and utilizes next generation technologies, such as solar panels, and will continue to implement additional technologies as they become commercially available. Highlights of the initiatives and processes that have made *Oasis of the Seas* the most energy efficient ship at sea include:

- **Hull Design** The coating on *Oasis of the Seas'* hull was made of non-toxic, technologically advanced materials that reduce hull resistance, thereby increasing fuel efficiency. The new, smoother coating reduces invasive marine species' ability to attach to and be transferred by the ship to other ecosystems.
- **Power** To allow for optimized energy utilization, *Oasis of the Seas* is equipped with several engine sizes based on common rail (electronic fuel injection) diesel engine technology, accommodating the different power needs required whether this ship is in port or facing various conditions while at sea. In addition, the ship boasts an Advanced Energy Management System, conserving energy thanks to optimal routing and power usage.
- **Lighting** From advanced dimming systems and motion sensors, to utilizing commercially available LED products, Royal Caribbean consulted with some of the best experts in the world to minimize electric lighting where possible, reducing electrical use 30 to 40 percent more than previous designs.

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Oasis of the Seas is the first cruise ship to have achieved DNV (Det Norske Veritas) Green Passport designation. This is an important part of the voluntary Clean Ship Design certification, thanks to a design and newbuilding process that incorporates hazardous construction materials inventory to facilitate future ship recycling.

Additionally, like all Royal Caribbean ships, *Oasis of the Seas* has a full-time Environmental Officer onboard who responsibilities include training the crew in areas such as waste management, energy efficiency and chemical management and overseeing operations to ensure compliance with company's "ABC" (Above and Beyond Compliance) policies.

- Advanced Wastewater Purification System Oasis of the Seas was awarded the first Clean Sea Award by Nor-Shipping, thanks to an Advanced Wastewater Purification System, which was designed to be twice as stringent as U.S. Federal standards for in-port wastewater discharge. Royal Caribbean's own policies restrict the discharge of even bilge water to outside 12 nautical miles off shore, whereas international regulations allow these discharges any time the ship is "en route."
- **Recycling** Everything and anything that can be recycled, is recycled onboard *Oasis of the Seas*. The ship boasts state-of the art facilities, complete with shredders, bailers and compactors, as well as crushers for glass, light bulbs, tin and aluminum. In addition, *Oasis* houses the largest cold storage room on any ship in the world to safely store all recyclables, special/hazardous waste, cooking oil, solvents, incinerator ash, and more.

Safety

With *Oasis of the Seas* representing the most innovative cruise ship in the history of the industry, design and safety go hand in hand. Royal Caribbean worked in collaboration with some of the world's leading marine safety and design individuals, organizations and government agencies to research and implement new standards in cruise ship safety. The most advanced, commercially available technology has been utilized to ensure the highest level of safety onboard *Oasis of the Seas*.

From thousands of simulations to test every conceivable situation, to superior navigation and maneuvering capabilities, design and operation highlights include:

• **Stability** – *Oasis of the Seas* is one of the first ships to be built with the new probabilistic damage stability rules developed by the International Maritime Organization (IMO). These rules are based on extensive computer capabilities, further building on the strict stability standards Royal Caribbean already has in place fleet wide.

- **Redundancy Machinery & Systems** Redundant Propulsion System (RPS) class ensures that if one engine compartment is flooded or lost due to fire or other damage, the other can sustain the vessel. The ship also has independent machinery systems for power, propulsion and comfort.
- Safety Command Center Oasis of the Seas has a dedicated Safety Command Center (separate from, but adjacent to the bridge) to manage all aspects of safety and emergency response. Staffed around the clock, the Safety Command Center includes detailed monitoring and decision support systems which can help crew respond quickly and effectively to any situation onboard.

Lifesaving and Evacuation

For the safety of guests and crew alike, Royal Caribbean has introduced several new concepts and improvements to the lifesaving and evacuation procedures onboard *Oasis of the Seas*. From larger lifeboats to an electronic mustering system, the practices, procedures and technology onboard ensure all guests and crew can be accounted for in the event of an emergency. Highlights include:

- **Lifeboats** The lifeboats on *Oasis of the Seas* have been entirely redesigned and approved as part of a holistic evacuation concept. With a 370 passenger capacity for each of the 18 lifeboats, new safety features include a central location on the embarkation deck—making them not only easier to board but also to be launched directly from their stowage arrangements—as well as a catamaran hull design, twin engines and propellers, and an internal PA system to ensure proper communication and direction to all occupants.
- Mustering Procedures Oasis of the Seas features a new mustering procedure that was created to take into account the ship's overall design and traffic patterns. During the muster procedure, guests are to report to their dedicated assembly area where crew members will give them a lifejacket and provide information during the mustering procedures, as well as instructions in the case of a real emergency. An electronic mustering system is implemented via guest SeaPass cards, allowing for real time accountability of all guests and crew to the evacuation command teams.

Allure of the Seas shares the title of the world's largest and most revolutionary cruise ship with sister-ship Oasis of the Seas. With a cache of distinct new onboard activities and amenities, Allure of the Seas offers one-of-a-kind entertainment performances, culinary concepts, retail venues and technology innovations. An architectural marvel at sea, Allure's neighborhoods are divided into seven distinct themed areas, which include Central Park, Boardwalk, the Royal Promenade, the Pool and Sports Zone, Vitality at Sea Spa and Fitness Center, Entertainment Place and Youth Zone. She spans 16 decks, encompasses 225,282 gross registered tons, carries 5,400 guests at double occupancy, and features 2,700 staterooms. Allure of the Seas alternates a Western Caribbean with an Eastern Caribbean seven-night itinerary from her home port of Port Everglades in Fort Lauderdale, Fla. Additional information is available at www.AllureoftheSeas.com.

Royal Caribbean International is a global cruise brand with 22 ships currently in service. The line also offers unique cruisetour land packages in Alaska, Dubai, Europe, Australia and New Zealand, and South America. For additional information or to make reservations, call your travel agent, visit www.royalcaribbean.com or call (800) ROYALCARIBBEAN. Travel professionals should visit www.cruisingpower.com or call (800) 327-2056.