Environmental Management Report
Fiscal Year 2006
Executive Summary

This is the second Carnival Corporation & plc (“Carnival”) Environmental Management Report. It covers fiscal year 2006 (December 2005 through November 2006). The purpose of this report is to illustrate and explain the combined efforts to monitor and manage environmental performance of Carnival and its subsidiary operating lines. This report will:

- Provide the means to communicate externally about the management of Carnival’s environmental performance;
- Help Carnival to comply with emerging environmental reporting requirements in the European Union;
- Demonstrate Carnival’s commitment to respond to disclosure requests by key stakeholders (including regulators, investors and industry groups) who are requesting up-to-date and verifiable environmental performance information;
- Assist in identifying opportunities for improved resource efficiency and cost reductions;
- Play a role in providing assurance of full compliance with legal and statutory obligations and stimulating internal accountability;
- Support performance benchmarking programs that will help Carnival to identify best practices; and
- Provide a means to communicate the new environmental initiatives being undertaken by Carnival both in technology innovations and environmental outreach programs.
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A Statement from the CEO

“Carnival Corporation & plc is committed to operating its vessels in the most environmentally friendly manner possible and to receive this ISO 14001 certification speaks volumes about our environmental preservation and protection efforts. Carnival Corporation & plc will continue to undertake wide-ranging environmental initiatives, including a significant investment in new technology, to reduce our environmental footprint and we are more committed than ever to our goal of becoming the industry leader in environmental excellence”.

- Micky Arison, Chairman and CEO regarding Carnival Corporation & PLC brands earning internationally accredited environmental management certifications (September 6, 2006)

Environmental Policy

Carnival’s Vice Chairman and Chief Operating Officer has formally defined Carnival's overall intentions and direction relative to environmental performance in the following Corporate Environmental Policy statement.
Environmental Policy

Carnival Corporation & plc is an international company providing cruise vacations worldwide. Our core values include preserving the marine environment and in particular the pristine condition of the waters upon which our vessels sail. We are committed to pollution prevention, regulatory compliance and continuous improvement of our environmental management. Our goal is to be the industry leader for environmental excellence. We will achieve this goal by continuously improving our processes to minimize environmental impact and waste. Carnival Corporation & plc will realize its objectives and commitment to environmentally conscious practices by:

a) fostering a corporate culture of environmental compliance that extends to all shoreside and shipboard personnel;
b) requiring its operating lines and employees not to impose budgetary constraints when the expenditure of funds is necessary to ensure environmental compliance;
c) requiring its operating lines to implement procedures and install equipment that assists in ensuring environmental compliance;
d) developing an environmental compliance system that ensures compliance with applicable environmental laws and regulations;
e) implementing processes to ensure awareness of and compliance with changing environmental regulations;
f) implementing processes to improve onboard equipment, operating procedures and training; and
g) improving mechanisms for detecting, correcting and preventing noncompliance.

Howard S. Frank
Vice Chairman and Chief Operating Officer

Date: 18 August 2005
Carnival Corporation & plc, or simply “Carnival”, is a global cruise company and one of the largest vacation companies in the world. Headquartered in Miami, Florida, U.S.A., Carnival has 75,000 employees worldwide.

Carnival’s portfolio includes 12 distinct brands comprised of the leading cruise operators in North America, Europe and Australia. These brands include:

- Aida Cruises
- Carnival Cruise Lines
- Costa Cruises
- Cunard Line
- Holland America Line
- Ocean Village
- P&O Cruises
- P&O Cruises Australia
- Princess Cruises
- The Yachts of Seabourn
- Swan Hellenic
- Windstar Cruises

Together, these brands operate 81 ships totaling 143,676 lower berths with 20 new ships scheduled to enter service between 2007 and 2011.

Carnival also operates the leading tour companies in Alaska and the Canadian Yukon, Holland America Tours, and Princess Tours.

Traded on both the New York and London Stock Exchanges, Carnival Corporation & plc is the only entity in the world to be included in both the S&P 500 and the FTSE 100 indices.
Carnival Cruise Lines – The contemporary leader in North America, Miami-based Carnival Cruise Lines is the world’s most popular and profitable cruise line. Operating 21 “Fun Ships,” Carnival appeals to a wide range of passengers by offering affordable, high quality vacations and guest-pleasing innovations, all in a memorable shipboard environment. The new Carnival Freedom will join the fleet in 2007.

Princess Cruises – Based in Santa Clarita, California, Princess Cruises is a leader in the premium market, operating 15 modern ships renowned for stunning interiors, design innovations and wide array of choices in dining, entertainment and amenities, along with exceptional customer service. The new Emerald Princess and Royal Princess will join the fleet in 2007.

Holland America Line - Seattle-based Holland America Line operates a fleet of 13 five-star ships, including its newest ship, ms Noordam, which debuted February 2006. Exquisitely appointed ships, delectable cuisine, and impeccable service has enabled Holland America Line to earn its position as a premium cruise leader.

Cunard Line - Cunard Line features cruising’s only modern transatlantic ocean liners, Queen Mary 2 and Queen Elizabeth 2. Epitomizing luxury travel, the British-based cruise operator is defined by its White Star Service (SM), a special standard that has
served royalty and celebrities for decades. Queen Victoria will join the Cunard fleet in December 2007.

**Aida Cruises** – Based in Rostock, Germany, AIDA is the best-known brand in the fast-growing German cruise market, catering to a young active clientele through its distinctive “club ship” concept. AIDAdiva, the latest addition to the fleet in 2007, will be the first in a new generation of ships for this rapidly expanding contemporary operator.

**Costa Cruises** – Headquartered in Italy, Costa Cruises is the number one cruise line in Europe and South America. Cruising for nearly 60 years, the Genoa-based cruise line operates in the contemporary market offering state-of-the-art ships with Italian ambience to an international clientele. The new Costa Serena will join the fleet in 2007.

**P&O Cruises** – Britain's leading cruise line, P&O Cruises combines innovation, professionalism and unrivalled experience to offer passengers the most stylish and contemporary holidays afloat. Ventura, the largest ship being built for the British market, launches in 2008 and another newbuild is set to debut in 2010.

**Ocean Village** – Free-spirited and unconventional, Ocean Village is a far cry from traditional cruising. Created for 30 to 50 somethings who like to explore new places and try new things, an Ocean Village holiday is a heady mix of pulse-racing action and chilled-out relaxation.

**Seabourn Cruise Lines** – Seabourn Cruise Line epitomizes luxury cruising aboard each of its three all-suite ships targeted primarily to North America. The Yachts of Seabourn are lavishly appointed with virtually one staff member to every guest.

**Windstar Cruises** – Headquartered in Seattle, Windstar Cruises offers North American consumers an experience that is “180 Degrees from Ordinary.” Its three sailing yachts, which can accommodate 148 to 312 guests, offer all ocean view staterooms, pampering five-star service, and cuisine by celebrity chef Joachim Splichal.

**Swan Hellenic** – Swan Hellenic operates a program of discovery cruises, targeted particularly to the UK. Itineraries include the Mediterranean, North America, South America, the Caribbean, the Indian Ocean and the Far East.

**P&O Cruises Australia** – P&O Cruises Australia pioneered Australian cruising in 1932, offering festive seagoing holidays for Australian and New Zealand passengers aboard its contemporary fleet. The company will expand this year with the introduction of the Pacific Dawn, Australia’s first superliner.
The Maritime Legal Environment

Carnival’s operations are distinctly different from those of typical shore-based companies and present unique challenges. The laws, regulations and other legal requirements applicable to our operations do not remain static based on a fixed geographic location. These requirements change regularly, sometimes on a daily basis, depending on the itineraries of our ships and the ports and countries visited. Carnival’s ships typically visit more than 100 countries and more than 300 ports in a year, and these locations change with itineraries from year to year.

Carnival ensures that all such legal and other requirements are taken into account when establishing, implementing and maintaining its environmental management systems. These requirements include a broad range of international, national, state, regional, and local requirements in the form of statutes, regulations, ordinances, and permits.

A selection of the principal laws and regulations regarding environmental performance with which Carnival must comply on a routine basis is listed below:

1) **The International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78).** MARPOL is the primary international convention covering prevention of pollution of the marine environment by ships from routine operational or accidental causes. MARPOL currently includes six technical Annexes, four of which apply to Carnival’s operations:
   a) Annex I, Regulations for the Prevention of Pollution by Oil;
   b) Annex IV, Regulations for the Prevention of Pollution by Sewage from Ships;
   c) Annex V, Regulations for the Prevention of Pollution by Garbage from Ships
   d) Annex VI, Regulations for the Prevention of Air Pollution from Ships.

2) **The International Management Code for the Safe Operation of Ships and for Pollution Prevention (the ISM Code):**
   a) The ISM Code is an international standard for the safe management and operation of ships and for pollution prevention and requires the development, implementation and certification of a Safety Management System that includes environmental protection.
   b) The Safety Management System of each of Carnival’s Operating Lines is certified in accordance with the ISM Code.
   c) The shore office is issued a Document of Compliance (DOC) and each vessel in the operating line fleet is issued a Safety Management Certificate (SMC).
3) **Flag State Marine Environmental Rules and Regulations** of the countries where Carnival’s ships are registered (“Flag States”) including those of:
   a) The United Kingdom;
   b) The Netherlands;
   c) Italy;
   d) The Bahamas;
   e) Bermuda; and
   f) Panama.

4) **Port State Marine Environmental Rules and Regulations** of the countries and other geographic areas where Carnival’s ships operate (“Port States”).

5) **Directive 2000/59/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 November 2000 on port reception facilities for ship-generated waste and cargo residues**, which defines requirements intended to reduce the discharges of ship-generated waste and cargo residues into the sea, especially illegal discharges, from ships using ports in the European Community, by improving the availability and use of port reception facilities for ship-generated waste and cargo residues, thereby enhancing the protection of the marine environment. Specific National regulations implement this directive in all 25 member countries of the EC, many of which are visited by Carnival's ships. These regulations define requirements for the management of all forms of ship-generated waste.

6) **Council Directive of 12 December 1991 on hazardous waste (91/689/EEC) amending Directive 78/319/EEC on hazardous waste**, which defines and provides a precise and uniform definition of hazardous waste. The Directive requires Member States shall take the necessary measures to ensure that on every site where tipping (discharge) of hazardous waste takes place the waste is recorded and identified. Member States shall take the necessary measures to require that establishment and undertaking which dispose of, recover, collect or transport hazardous waste do not mix different categories of hazardous waste or mix hazardous waste with non-hazardous waste. Member States shall take the necessary measures to ensure that, in the course of collection, transport and temporary storage, waste is properly packaged and labeled in accordance with the international and Community standards in force. Specific National regulations implement this directive in 25 member countries of the EC, many of which are visited by Carnival's ships.

7) **The U. S. Act to Prevent Pollution from Ships** ("APPS"), as amended, 1980 (33 U.S.C. §§ 1901-1911), and it’s implementing regulations.

8) **The U.S. Clean Water Act (CWA)** (40 CFR Parts 50-99), the U. S. regulations which set the standards for effluent discharges to bodies of water to protect drinking water sources.

10) **Clean Air Act** The U.S. Clean Air Act (CAA), initially issued in 1970 to require development and enforcement of regulations to protect the general public from exposure to airborne contaminants hazardous to human health, supplemented in 1990 by additional legislation to reduce the generation of smog and other forms of atmospheric pollution

11) **Alaska Cruise Ship Legislation** including:
   a) U.S. federal law "Title XIV—Certain Alaskan Cruise Ship Operations" which sets effluent standards for blackwater only and allows continuous discharge if secondary treatment standards are met and compliance is demonstrated through semi-monthly sampling;
   b) Alaskan State Law AS 46.03.460 – 46.03.490 which sets effluent limits for both graywater and blackwater, addresses the offloading and/or disposal of non-hazardous solid wastes (besides sewage) and hazardous wastes in Alaska, and requires vessel owners/ operators to annually submit a description of the non-hazardous and hazardous waste handling procedures used on their vessels; and
   c) Alaska State Regulation 18 AAC 50.070. "Marine Vessel Visible Emission Standards" which states that within three miles of the Alaska coastline, visible emissions, excluding condensed water vapor, may not reduce visibility through the exhaust effluent of a marine vessel by more than 20 percent with certain specified exceptions.

12) **Memoranda of Understanding** with various U.S. States including Florida and Washington.

13) **Hawaii Cruise Ship Legislation** On July 12, 2005, Hawaiian House Bill No. 422 "Relating to Cruise Ship" became law as Act 217. The law regulates discharges of sewage, wastewater, and air emissions and the offloading of solid and hazardous wastes from cruise ships.

14) **Maine Cruise Ship Legislation** Beginning January 1, 2006, the laws of the State of Maine require that the owner or operator of a large commercial passenger vessel not discharge graywater or a mixture of graywater and blackwater to coastal waters unless the discharge is authorized under a general permit and meets certain specific State requirements and associated rules. The requirements and associated rules permit ships with a U.S. Coast Guard-approved advanced wastewater treatment system, that meet the same wastewater discharge standards applicable in Alaskan waters, to discharge wastewater within Maine’s coastal waters, and require that the ships maintain a log of discharges and file discharge information with the state.
15) **Ballast Water Management regulations** and guidelines are designed to reduce the threat to the world's oceans and resultant environmental, economic and public health impacts from invasive aquatic species by addressing the transfer of harmful aquatic organisms and pathogens in ships' ballast water. Such regulations and guidelines are issued by, among others:

a) The International Maritime Organization (IMO);
b) The U.S. Coast Guard (USCG);
c) Individual U.S. States, e.g., California, Washington State, Oregon, Port of Oakland, Great Lakes (North America); and
d) Individual Port States visited by Carnival Corporation vessels, e.g. Antarctica, Australia, Argentina, Brazil, Canada, Chile, Egypt, Israel, New Zealand, NW Europe, Panama, Peru, Russia, United Kingdom, and Ukraine.

The 55th session of the Marine Environment Protection Committee (MEPC) met in London in October 2006 to review Ballast Water Management Convention Regulations and review alternative Ballast Water Management Methods and assessment of Treatment Systems. An update of these and new treatment technologies is scheduled to be reported to MEPC 56 in July 2007.

16) **The Montreal Protocol** on Substances that Deplete the Ozone Layer is an international treaty designed to protect the ozone layer by phasing out the production and use of a number of substances believed to be responsible for ozone depletion. The 16th Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer concluded on November 26, 2004, in Prague, Czech Republic.
Carnival Corporation & Carnival plc operates under a dual listed company structure with single corporate governance. Governance principles are set forth in our Corporate Governance Guidelines and the charters of our Board committees.

As indicated below, accountability for environmental performance in Carnival extends from the ships, through the Operating Lines and Senior Corporate Management to the Boards of Directors.
Corporate:

**Boards of Directors** - The Health, Environmental, and Safety & Security (HESS) Committee of the Boards of Directors are comprised of three independent Directors. The Committee supervises and monitors health, environmental, safety and security policies, programs, initiatives at sea and onshore, and compliance with health, environmental, safety and security legal and regulatory requirements.

The VP – Maritime Policy & Compliance makes quarterly reports to the HESS Committee concerning Carnival’s health, environmental, safety, security and regulatory matters. On a quarterly basis, the HESS Committee reports to the full Boards of Directors on issues raised by these quarterly reports.

**Vice President – Maritime Policy & Compliance (MP&C)** – MP&C is headed by a Vice President, with full-time professional and administrative staff. Carnival’s MP&C Department is responsible for providing a common, integrated approach to management of health, environmental, safety and security matters. The department combines the responsibilities previously held by the Corporate Environmental Compliance, Corporate Maritime Affairs, and Maritime Audit Services organizations.

Responsibilities assigned to MP&C include:

- Developing and implementing of corporate standards and policies regarding health, environmental, safety, and security (HESS) matters;
- Identifying emerging HESS issues in these areas;
- Representing Carnival Corporation & Plc with regulatory and external organizations;
- Standardizing the collection and analysis of data from audits, incidents, and performance monitoring and reporting these to the HESS Committee and the Board of Directors; and
- Performing corporate-level assessments of HESS management systems in each operating company and cross-company focused reviews of critical HESS areas.

**Operating Lines – Shoreside:**

**Chief Executive Officer – Operating Lines** – The CEO of each Operating Line is responsible for the day to day management, compliance with the Corporation’s policies and standards within the Operating Line, and ensuring prompt resolution of HESS issues.
Environmental Management Executive (EME) – Each Operating Line EME is responsible for assuring implementation of the Operating Line’s Environmental Management Systems, and for monitoring of environmental performance and compliance with the Corporation’s environmental policies, and standards. The EME has direct access to the Operating Line’s CEO, and has a line of communication to the Carnival Corporation’s VP – MP&C. The EME is independent of direct, day to day responsibility for managing or performing operational activities, and is supported by professional and administrative staff commensurate with the needs of the Operating Line.

Operating Lines – Shipboard:

Ships’ Master – The Master of each Carnival ship is responsible for the safety and care of all persons on board the ship, the ship’s seaworthiness, navigation and overall operations, and for pollution prevention. The Master is assisted by three senior officers: the Staff Captain/Chief Officer, the Chief Engineer/Chief Technical Officer, and the Hotel Director who manage the Deck, Engine/Technical, and Hotel Departments, respectively.

Environmental Officers (EO) – The EO is a non-watch standing officer responsible for the oversight and verification of shipboard environmental management and compliance. The EO reports directly to the Master and has a line of communication to the Operating Line EME.
Voluntary Environmental Management and Technical Initiatives

To achieve its goal to be the industry leader for environmental excellence, Carnival has dedicated significant resources to the following environmental management and technical initiatives that go considerably beyond the requirements of current laws and regulations.

Environmental Management

Corpor ate Environmental Standards

In order to maintain and improve environmental compliance, management, and performance, Carnival has developed and implemented the following Corporate Environmental Standards:

- CENVS 001, Refrigeration Technician Training
- CENVS 002, Refrigerant Recovery Units
- CENVS 003, Black and Gray Water Management
- CENVS 004, Bilgewater and Oily Waste Management
- CENVS 005, Under Water Paint Coatings
- CENVS 006, Grease Trap – Grease/Oil/Residue Disposal
- CENVS 007, Waste Management
- CENVS 008, Hazardous Materials Management & Hazard Communications
- CENVS 009, Environmental Management System (EMS) Certification
- CENVS 010, Environmental Organization and Reporting Structure
- CENVS 011, Environmental Awareness and Training
- CENVS 012, Corporate Environmental Auditing and Monitoring
- CENVS 013, Environmental Accountability and Reporting

Cruise Line International Association (CLIA) Environmental Standards

On 15 June 2006, cruise industry associations, CLIA and the International Council of Cruise Lines (ICCL) announced the merger of these two organizations and that the merged organization will continue to be called CLIA.

Carnival has adopted and implemented the CLIA Environmental Standards on all of Carnival's ships. These standards are based on principles that include: designing and constructing cruise ships to be as environmentally friendly as possible, embracing new technology, complying fully with international and U.S. environmental laws, minimizing waste production, and maintaining cooperative relationships with the regulatory community.

The CLIA Environmental Standards includes requirements related to environmentally responsible handling and disposal of:
• Photo Processing Waste, Including X-Ray Development Fluid;
• Dry-Cleaning Waste Fluids and Contaminated Materials;
• Print Shop Waste Fluids;
• Photo Copying and Laser Printer Cartridges;
• Unused and Outdated Pharmaceuticals;
• Fluorescent and Mercury Vapor Lamp Bulbs;
• Batteries;
• Bilge and Oily Water Residues;
• Glass, Cardboard, Aluminum and Steel Cans;
• Incinerator Ash;
• Graywater; and
• Blackwater.

These CLIA Environmental Standards are incorporated into the Environmental Management Systems of Carnival’s Operating Lines.

**Technical Initiatives**

**Advanced Waste Water Purification Systems (AWWPS)** – Carnival is conducting an intensive multi-phase investigative study of the various AWWPS’s currently available in the marketplace. The systems studied includes purification plants currently installed on some of Carnival’s ships, as well as other systems that could meet the strict design specifications set forth by the study group.

The study is evaluating the environmental impact of wastewater discharges on ocean areas in which Carnival’s vessels operate in conjunction with the CLIA partnership with Conservation International (CI). The study is intended to assist in identifying vessels and regions of operation that would most benefit from future installation of AWWPS’s.

**Vessel Shore Power Installations** – Carnival operates two shore power installations, in Juneau, Alaska and in Seattle, Washington, that permit certain ships that visit these ports to operate on power which is produced and provided by land-based power plants. This enables those Carnival ships to shut down their engines and reduce air emissions while moored in these ports. These land-based power plants use environmental technologies not yet available to ships that enable them to produce power with less environmental impact and take advantage of sustainable resources, such as hydroelectric power.

Princess Cruises has signed an agreement to turn off the engines of its ships and plug them in to shore electrical power when they dock at the Port of Los Angeles. The port’s shore power capability will be available in 2008, and the technology is already available on the Princess’ ships that will call there.
Plasma Incinerator Waste Disposal – Carnival operates the only shipboard plasma incinerator in the cruise industry. The installed system began as a prototype and has successfully performed in the disposal of a wide range of dry shipboard waste products. Carnival is evaluating the use of the plasma incinerator for disposal of other shipboard wastes. Plasma technology allows the ship to burn waste very efficiently and produce significantly reduced air emissions and ash byproducts of incineration. Carnival is investigating installation of similar systems onboard additional ships.

Water Lubricated Shaft Bearing Systems – Several Carnival ships are equipped with water lubricated propeller shaft bearing systems. Traditional systems use oil as a lubricating and cooling medium while these systems use seawater. This technology benefits the environment in the event that a ship experiences a shaft bearing leak. Instead of potentially leaking oil to the marine environment, such leaks from ships with water lubricated systems would only result in seawater reentering the marine environment. These systems are currently installed on a number of Carnival’s larger ships.

Refrigeration Engineer Training – At least one Refrigeration Engineer on each Carnival ship that visits US ports is trained and certified in accordance with Section 608 of the US Clean Air Act. While this Act does not apply on board Carnival’s ships, it is being implemented as a voluntary good environmental practice.

Refrigeration Recovery Units – All Carnival ships, whether they visit US ports or not, perform refrigerant gases recovery operations using Chlorofluorocarbon (CFC) recovery units that are certified in accordance with Section 608 of the US Clean Air Act. While this Act does not apply on board Carnival’s ships, it is being implemented as a voluntary good environmental practice. Each Carnival Operating Line provides notice of such certification to the US EPA.

Treated Blackwater Discharge – Blackwater (sewage) from Carnival’s ships is processed through a Marine Sanitation Device (MSD), certified in accordance with US or international regulations, prior to discharge. Discharges take place only when the ship is at a distance of more than 12 nautical miles from the nearest land and only when the ship is travelling at a speed of not less than 6 knots. This policy does not apply to black water processed through Advanced Waste Water Purification Systems (AWWPS).

Bilge Water Processing System “White Box” – All Carnival ships ensure that all bilge water destined for overboard discharge, including that stored in clean bilge water holding tanks is routed through a “White Box”. The “White Box” is a proprietary system considered to be a tamper resistant fail-safe for overboard discharge of processed bilge water. Its design incorporates an oil content meter (OCM) and return water functions in a central locked location that also includes a regulating valve, flow switches, solenoid valves, a three-way valve, a flow meter, a control box and a recorder. The “White Box” serves as the final monitoring and control device through which bilge water passes prior to reaching the environment.
Seawater Scrubber Feasibility Project – Holland America Line is preparing to conduct a seawater scrubber feasibility project aboard one of its cruise ships with supporting monetary assistance from the EPA/West Coast Collaborative grant and the Puget Sound Clean Air Agency. This innovative project is intended to demonstrate how advanced seawater scrubbing reduces air emissions on large ocean going ships. The results of this project will determine if this is a viable technology for consideration on new ocean going ships or as a retrofit to existing ships.

Heating, Ventilating, and Air Conditioning (HVAC) Control/Automation System – Princess Cruises and Carnival Cruise Lines are currently working on new HVAC Control/Automation systems on board their ships. The systems are designed to control onboard HVAC temperatures more effectively. These initiatives are aimed at reducing fuel consumption hence reduce air emissions.

Use of Anti Fouling Release Coating (Marine Coating) Technology – Aida Cruises and Carnival Cruise Lines have been testing new anti fouling marine coatings on their vessels to improve ship’s speed hence fuel efficiencies, which will result in the reduction of air emissions. This marine coating is biocide-free making it more environmentally acceptable than the use of biocide-releasing technologies.

Hull Appendage Modification – Carnival Cruise Lines has been testing the effects of adding a hull appendage (known as an interceptor plate) on one of its Conquest class of ships. This innovation is designed to reduce fuel consumption hence reduce air emissions.

Evaporator Management – Carnival Cruise Lines is working on an evaporator management project aimed at optimizing the operation of the Fresh Water Evaporators while utilizing the waste heat generated by its engines more efficiently. This initiative will reduce the fuel burned by the ship’s boilers hence reduce air emissions.

Ship Emissions Abatement and Trading (SEAaT) – Carnival Corporation is a Sponsoring Member of SEAaT, a cross-industry, unique, pro-active and self funding group, whose mission is to encourage and facilitate efficient reduction of harmful emissions to air from shipping. SEAaT is an industry group formed in 2002 to raise awareness and acceptance of solutions for emissions reductions that are sustainable, cost effective and achievable. SEAaT’s founding sponsors are shipping and oil companies committed to exploring and implementing cost effective methods of reducing emissions. SEAaT members represent the broader shipping community, and are ship owners, brokers, technology companies and fuel suppliers (www.seaat.org).
**FTSE4Good Inclusion** – FTSE is an Independent Global Index Company. The FTSE4Good Index Series launched in 2001 is a series of benchmark and tradable indices for socially responsible investors (SRI). To be included in the indices, companies need to demonstrate that they are:

- Developing positive relationships with stakeholders;
- Working towards environmental sustainability;
- Upholding and supporting universal human rights.

The FTSE4Good Indices appeal to a broad range of institutional and retail socially responsible investors who are looking to:

- Only invest in companies that demonstrate good standards in corporate responsibility;
- Minimalize the social, ethical and environmental risks within their portfolios;
- Capitalize on the benefits of good corporate responsibility;
- Avoid investing in traditionally excluded SRI sectors such as tobacco, defense and nuclear power;
- Actively encourage companies to be more responsible.

In January 2006, Carnival Corporation responded to specific requirements to maintain its index listing. Subsequently, Carnival was assessed as meeting all of the FTSE4Good environmental criteria.

**Carbon Disclosure Project** – Carnival participates in the Carbon Disclosure Project (CDP). CDP provides a secretariat for the world's largest institutional investor collaboration on the business implications of climate change, and represents an efficient process whereby many institutional investors collectively sign a single global request for disclosure of information on Greenhouse Gas Emissions. Since 2002 CDP has sent this request to the FT500 largest companies in the world. In 2006, the CDP4 request reached over 1900 companies. Carnival's response and a report based on all responses are publicly available from the CDP website ([www.cdproject.net](http://www.cdproject.net)).

**Governance Metrics International (GMI) Reporting** – GMI was formed in April 2000 by a group who recognized the need for an easy-to-use tool to monitor corporate governance. It is a shareholder advisory rating agency. Ratings for 3,800 companies are available by subscription. GMI rating criteria are based on security regulations, stock exchange listing requirements and various corporate governance codes and principles. The criterion is a series of statements which are responded to by the company and updated as necessary. In August 2006, Carnival provided necessary responses to fifteen statements regarding Environmental, Health and Safety concerns. ([www.gmiratings.com](http://www.gmiratings.com))
Training and Communication

Carnival has established a Corporate Environmental Awareness and Training Standard that requires each Operating Line to develop and implement an environmental training plan and related procedures to ensure that:

- All shipboard and applicable shoreside personnel have environmental awareness training;
- Any person whose job could significantly impact the environment has job-specific training, including comprehensive equipment training, prior to commencing work in that job;
- Any person whose job entails oversight and verification of environmental management, performance or compliance is competent to perform their assigned oversight and verification functions, based on appropriate education, training or experience.
- There are means for sharing knowledge among shipboard and shoreside personnel to communicate best practices, new training requirements, and other information that may enhance environmental awareness and performance.

Based on this standard, Carnival and its Operating Lines have developed and implemented comprehensive environmental training programs. These environmental training programs:

- Are designed to help ensure that any shipboard or shoreside personnel performing tasks that have the potential to cause a significant environmental impact are competent to perform such tasks. Personnel competence is based on education, training, and/or experience.
- Address the knowledge and skills needed to comply with applicable environmental laws, requirements, regulations and Environmental Management System (EMS) requirements.
- Educate personnel on the environmental impact of operations and the processes, procedures and policies that form the basis of the EMS.
- Ensure that employees understand Carnival's environmental management policies; and are able to integrate environmental management objectives with all applicable environmental procedures in the performance of their jobs.

Carnival's environmental training programs for shipboard and shoreside personnel typically use a multi-tiered approach that includes one or more of the following, based on the job duties of the individuals being trained:

- Environmental Familiarization Training;
- Basic Environmental Training;
- Environmental Training for Management and Supervisory Personnel; and
- Environmental Oversight and Verification Training.
To promote effective training, the learning objectives of each training course are clearly explained at the beginning of the course and included in handouts as appropriate. In addition, learning objectives for each separate session within multi-session courses are clearly stated at the beginning of that session. The learning objectives typically state what the participants should know or be able to do at the end of each session.

Carnival’s training programs include mechanisms for measuring proficiency gained as a result of the training, based on stated learning objectives.

In addition to the training structure outlined above, certain personnel are subject to continuing education requirements.

Carnival and its Operating Lines maintain processes for communicating environmental information, both within and outside of the organization, in conjunction with their respective public relations functions. This includes an environmental compliance telephone “Hotline” and a website (www.carnivalcompliance.com).

Procedures are maintained for:
- Internal communication between the various levels and functions of the organization; and
- Receiving, documenting and responding to relevant communication from external interested parties, especially in regards to significant environmental aspects.

Carnival and its Operating Lines regularly communicate with external parties such as governmental agencies, community stakeholders, tenants, contractors, and other organizations. These communications include subjects associated with the management of significant environmental aspects and are governed by regulatory requirements and the professional judgment of Carnival and Operating Line staff.
Carnival’s Corporate Environmental Compliance Department was initially formed in May 2002 to oversee all aspects of environmental compliance of the corporation. In 2006, other corporate departments managing similar functions in the health, safety, and security areas were combined into one department titled the Maritime Policy and Compliance (MP&C) Department. The Vice President, Maritime Policy and Compliance heads the new department.

Primary functions and goals of the MP&C Department now include:

- Measuring and benchmarking performance;
- Conducting or participating in investigations of incidents when appropriate;
- Assessing safety management systems of each operating line;
- Conducting cross-company focused reviews of critical health, environmental, safety and security areas;
- Promoting common metrics across the Corporation;
- Avoiding redundant and inconsistent reporting;
- Identifying emerging issues in the health, environmental, safety and security (HESS) areas;
- Participating with regulatory agencies in formulating new regulations; and
- Participating with investigative agencies to ensure their understanding of our business.
How We Are Doing

Beyond Certification
ISO 14001 Environmental Management Systems

On 1 February 2005, Mr. Howard Frank, Carnival Corporation Vice Chairman and Chief Operating Officer, announced the corporate wide initiative to develop environmental management systems and to obtain ISO 14001 certification in all of Carnival's operating lines by August 2006.

ISO 14001 is one of the series of ISO 14000 environmental management standards that were developed to help organizations manage their processes, products and services to minimize environmental impact.

ISO 14001 focuses on the processes - the comprehensive outcome - of how services are delivered and products are produced, rather than on the actual service or product itself. ISO 14001 also presents a structured approach to setting environmental objectives and targets and provides a framework for any organization to apply these broad conceptual tools to their own processes.

By September 2006 all the operating companies of Carnival Corporation & plc had successfully completed implementation and certification of their respective environmental management systems to the ISO 14001 standard.

Certifications were issued to the company's operating units by four different internationally recognized maritime regulatory agencies. These agencies include RINA from Italy, Germanischer Lloyd from Germany, Lloyd's Register Quality Assurance from North America and the Maritime and Coastguard Agency in the UK.

Mr. Micky Arison, Carnival Corporation & plc Chairman and CEO, stated that “Carnival Corporation & plc will continue to undertake wide-ranging environmental initiatives, including a significant investment in new technology, to reduce our environmental footprint and we are more committed than ever to our goal of becoming the industry leader in environmental excellence.”
Carnival maintains processes within each of its Operating Lines for identifying and prioritizing the environmental aspects of its activities, products and services that it can control, or, over which it can expect to have an influence.

Carnival has identified those operations and activities that are associated with the identified significant environmental aspects and plans these activities to ensure that they are carried out under controlled conditions.

The following are typical of the significant environmental aspects of Carnival’s activities, products and services and its associated potential/actual environmental impact:

<table>
<thead>
<tr>
<th>Significant Environmental Aspect</th>
<th>Potential/Actual Environmental Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ballast water/ Invasive species - marine</td>
<td>Inappropriate release or discharge to marine environment</td>
</tr>
<tr>
<td>Chemicals</td>
<td>Inadvertent release or spill</td>
</tr>
<tr>
<td>Dry cleaning – use of perchloroethylene chemical/solvent</td>
<td>Air pollution, volatile organic compounds</td>
</tr>
<tr>
<td>Engine emissions, NOx, SOx, CO2, particulates</td>
<td>Release to air, pollution, smog, global warming</td>
</tr>
<tr>
<td>Fire fighting – use of extinguishing gases – Halons, CO2</td>
<td>Ozone depletion, global warming potential</td>
</tr>
<tr>
<td>Food</td>
<td>Natural resource use, spill during loading</td>
</tr>
<tr>
<td>Fuel</td>
<td>Natural resource use, spill during bunkering</td>
</tr>
<tr>
<td>Heat</td>
<td>Release to air, water</td>
</tr>
<tr>
<td>Hull paint/ coatings (TBT)</td>
<td>Release to water, release of components to sea</td>
</tr>
<tr>
<td>Incinerator Emissions</td>
<td>Release to air, smog, global warming</td>
</tr>
<tr>
<td>Invasive species - pests (vermin &amp; insects)</td>
<td>Infestation of ship, release to land</td>
</tr>
<tr>
<td>Itinerary plan – human traffic (resource and waste issue)</td>
<td>Local congestion, traffic and resources (including cultural)</td>
</tr>
<tr>
<td>Itinerary plan – port development</td>
<td>Disturbance of “green fields”, loss of pristine spaces</td>
</tr>
<tr>
<td>Lubricants &amp; hydraulic oil</td>
<td>Inadvertent release or spill during loading, release to water</td>
</tr>
<tr>
<td>Marine mammals &amp; birds</td>
<td>Marine mammal / bird strike</td>
</tr>
<tr>
<td>Noise</td>
<td>Disturbance to local communities</td>
</tr>
<tr>
<td>Ozone depleting substances (ODS) – (CFCs / HCFCs / Halons)</td>
<td>Release to environment, ozone depletion, global warming</td>
</tr>
<tr>
<td>Odor</td>
<td>Release to air, air quality</td>
</tr>
<tr>
<td>Oil/Water leaks</td>
<td>Oil pollution</td>
</tr>
<tr>
<td>Packaging</td>
<td>Natural resource use, Inadvertent release to sea</td>
</tr>
<tr>
<td>Paint</td>
<td>Natural resource use, Inadvertent release to sea</td>
</tr>
<tr>
<td>Pathogens</td>
<td>Sick guests/ Crew</td>
</tr>
<tr>
<td>Significant Environmental Aspect</td>
<td>Potential/Actual Environmental Impact</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>Printer/copier toner cartridges</td>
<td>Hazardous waste generation, recycling</td>
</tr>
<tr>
<td>Reef (striking by grounding; voyage interruption), sediment placed on a reef</td>
<td>Damage to reef</td>
</tr>
<tr>
<td>Waste - biohazardous / medical / sharps / pharmaceuticals</td>
<td>Sharps, disease exposure</td>
</tr>
<tr>
<td>Waste - food waste/USDA waste, solid (garbage)</td>
<td>Inappropriate release or disposal to sea and shore</td>
</tr>
<tr>
<td>Waste - hazardous &amp; regulated (oily waste, chemicals, incinerator ash) universal (batteries, fluorescent bulbs, electronics)</td>
<td>Inappropriate release or disposal to shore</td>
</tr>
<tr>
<td>Waste sludge - hydrocarbon</td>
<td>Inappropriate release or disposal to shore</td>
</tr>
<tr>
<td>Wastewater – bilge, black, gray, pool soot laden (boiler wash down)</td>
<td>Inappropriate release or discharge, shore disposal</td>
</tr>
<tr>
<td>Water</td>
<td>Natural resource use, energy consumption, lack of water</td>
</tr>
</tbody>
</table>

Each of Carnival’s Operating Lines sets their own objectives and targets for improvement of their environmental performance. These objectives and targets are reviewed at the Operating Lines’ management review meetings. Typical objectives set include:

- Reduction of fuel consumption
- Reduction of on-board water consumption
- Minimization of hazardous and solid waste generation
- Enhancement of recycling programs
- Reduction of invasive species in ballast water discharges
- Reduction of garbage quantity produced per person per day
- Study process for optimization of sewage treatment management
- Study process for optimization of incinerator management
- Reduction of perchloroethylene (PERC) consumption
- Reduction of refrigerant gas consumption
- Creation of work groups for effective itinerary planning

Carnival monitors performance against these objectives and targets.
Environmental Performance

Beginning in December 2004, for Carnival's Fiscal Year 2005, Carnival began to measure and record key parameters regarding resource consumption and waste disposal in a standardized format across all of Carnival's Operating Lines and ships. These data are reported below and provide the basis for establishing year to year environmental performance targets. In future reports, these data will be used to demonstrate trends and to provide a means of visualizing performance improvements.

This performance data is primarily focused on ship operations. The five main aspects of potential environmental impact evaluated are:

1. Air emissions (greenhouse gas emissions and ozone depletors)
2. Water emissions
3. Waste emissions (solid and hazardous waste)
4. Energy consumption
5. Water consumption

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>2006 MEASUREMENT</th>
<th>2005 MEASUREMENT</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AIR EMISSIONS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO₂</td>
<td>173.71 kg CO₂/ ALBD</td>
<td>178.08 kg CO₂/ ALBD</td>
<td>(1), (2) &amp; (3)</td>
</tr>
<tr>
<td></td>
<td>1146.92 kg CO₂/ mile</td>
<td>1148.81 kg CO₂/ mile</td>
<td>(2) &amp; (3)</td>
</tr>
<tr>
<td>Ozone Depletors</td>
<td>6.14 x 10⁻⁵ kg/ ALBD</td>
<td>8.17 x 10⁻⁵ kg/ ALBD</td>
<td>(1) &amp; (4)</td>
</tr>
<tr>
<td><strong>WATER EMISSIONS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waste Water Emission</td>
<td>0.0026 tonnes/ ALBD (untreated black water)</td>
<td>0.0051 tonnes/ ALBD (untreated black water)</td>
<td>(1),(5) &amp; (6)</td>
</tr>
<tr>
<td></td>
<td>0.122 tonnes/ ALBD (treated black water)</td>
<td>0.0616 tonnes/ ALBD (treated black water)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.254 tonnes/ ALBD (grey water)</td>
<td>0.257 tonnes/ ALBD (grey water)</td>
<td>(1) &amp; (7)</td>
</tr>
<tr>
<td>Untreated Ballast Water Discharged</td>
<td>0.214 tonnes/ mile</td>
<td>0.231 tonnes/ mile</td>
<td>(8)</td>
</tr>
<tr>
<td>Solid and Hazardous Waste</td>
<td>0.0066 tonnes/ ALBD (to shore)</td>
<td>0.0077 tonnes/ ALBD (to shore)</td>
<td>(1) &amp; (9)</td>
</tr>
<tr>
<td>PARAMETER</td>
<td>2006 MEASUREMENT</td>
<td>2005 MEASUREMENT</td>
<td>NOTES</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Solid Waste</td>
<td>0.0079 tonnes/ ALBD</td>
<td>0.0083 tonnes/ ALBD</td>
<td>(1) &amp; (9)</td>
</tr>
<tr>
<td>(to sea or incinerated)</td>
<td>(to sea or incinerated)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recyclables</td>
<td>4.77 x 10⁻⁴ cubic meters/ ALBD</td>
<td>4.94 x 10⁻⁴ cubic meters/ ALBD</td>
<td>(1) &amp; (10)</td>
</tr>
<tr>
<td>ENERGY CONSUMPTION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil Consumption</td>
<td>0.36795 tonnes/ mile</td>
<td>0.36853 tonnes/ mile</td>
<td>(2) &amp; (11)</td>
</tr>
<tr>
<td></td>
<td>0.05573 tonnes/ ALBD</td>
<td>0.05713 tonnes/ ALBD</td>
<td>(1), (2) &amp; (12)</td>
</tr>
<tr>
<td>WATER CONSUMPTION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Consumption</td>
<td>0.3798 tonnes/ ALBD</td>
<td>0.3835 tonnes/ ALBD</td>
<td>(1) &amp; (13)</td>
</tr>
<tr>
<td>OTHER ENVIRONMENTAL PERFORMANCE METRICS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Significant Oil or Chemical Spills</td>
<td>32</td>
<td>42</td>
<td>(14)</td>
</tr>
<tr>
<td>Volume of Significant Oil or Chemical Spills</td>
<td>1641.75 liters</td>
<td>4352 liters</td>
<td></td>
</tr>
<tr>
<td>Fines and Liabilities</td>
<td>US $ 15,750</td>
<td>US $ 365,100</td>
<td>(15)</td>
</tr>
<tr>
<td>Expenditures</td>
<td>US$ 48,895,423</td>
<td>US$ 59,580,736</td>
<td>(16)</td>
</tr>
</tbody>
</table>

NOTES:
1. A number of Year 2005 measurements had referred to PBD - Passenger Berth days (used to normalized data by ship size/capacity). This indicator has been replaced by a more commonly referenced cruise industry indicator called the ALBD - Available Lower Berth Day (also used to normalize data by ship size/capacity). Hence, Year 2005 measurements have been restated substituting ALBD for PBD.

2. Year 2005 fuel consumption related measurements have been restated due to inconsistencies identified in the fuel consumption data collection process.

3. This parameter measures kilograms of CO₂ normalized by miles traveled and by ALBD. Greenhouse gas emissions are a very serious concern to the Global Community. The Global Reporting Initiative (GRI) see website: [http://www.globalreporting.org/guidelines/2002/c48.asp](http://www.globalreporting.org/guidelines/2002/c48.asp). Environmental Performance Indicator EN8 refers to Greenhouse gas emissions. Greenhouse gases are thought to “amplify” the greenhouse effect. Carnival ships emit Carbon Dioxide (CO₂) which is one of the chemical byproducts of an internal combustion engine or boiler. The equations of chemistry enable the direct conversion of fuel oil consumed to equivalent kilograms of CO₂. The primary combustion products are CO₂ and water vapor (H₂O).

4. The GRI Environmental Performance Indicator EN9 refers to the use and emissions of ozone-depleting substances. Carnival ships use a variety of refrigerants most of which are marginally or without ozone depleting potential. Quantities of refrigerants used have been converted to equivalent quantities of CFC-11 which has the highest ozone depletion potential.
5. 1 tonne = 1 metric ton = 2204.62 lbs = 1000 kilograms.

6. The GRI Environmental Performance Indicator EN12 refers to significant discharges to water by type. This parameter measures black water discharge normalized by ALBD. Carnival ships consume water and also discharge it to the sea. The significant sea emissions are black water (sewage), grey water (showers, sinks, galleys, pool water) and ballast water (used for the stability of the vessel). There are no international regulations for the discharge of grey water although Carnival ships follow company procedures, CLIA and Corporate Standards for the disposal. Black water is treated and discharged in accordance with MARPOL Annex IV, CLIA and Corporate Standards.

7. Of the water consumed onboard Carnival ships, approximately 75% is discharged as grey water.

8. This parameter is normalized by miles traveled. The concern for Ballast water is the inadvertent transport of non-indigenous species. International, Federal and State regulations require the detailed reporting of ballast water management.

9. This parameter measures solid & hazardous waste disposal normalized by ALBD. Hazardous Waste disposal is normally less than 1% of total waste disposal. Hazardous waste is landed to shore facilities. There are three disposal methods for Solid Waste namely disposal “ashore or at sea” or incinerated waste. The “at sea” or “incinerated waste” is in accordance with MARPOL and applicable laws and regulations. Incinerated waste includes dry garbage, food waste, and sludge. Plastic is never disposed of at sea.

10. The amount shown includes waste that is landed ashore for recycling (e.g.: aluminum, glass, scrap metal). The GRI Environmental Performance Indicator EN11 also includes waste that is reused, recycled or recovered.

11. This parameter measures total fuel oil normalized by total nautical miles traveled. Studies have shown that as much as 55% of the fuel consumed on board is for hotel operations including in port (vessel stopped) operations. The primary fuel used onboard Carnival ships is Heavy Fuel Oil (HFO) which typically has an average sulphur content of 2.5%. The ships also use Marine Diesel Oil (MDO) and Marine Gas Oil (MGO). MDO use is less than 1% of HFO use and MGO use is approximately 4% of HFO use.

12. This parameter measures total fuel oil consumed normalized by ALBD.

13. This parameter measures potable water consumption normalized by ALBD. Potable water is a very precious commodity to most of the Earth’s inhabitants. Although Carnival vessels consume significant amounts of potable water, a large portion is actually produced from seawater by equipment on board the vessels. The remaining water requirements are met by bunkering during ports of call. The GRI Environmental Performance Indicator EN5 refers to total water use.

14. The GRI Environmental Performance Indicator EN13 is for the reporting of significant spills of chemicals, oils, and fuels in terms of total number and total volume. Carnival Corporation has defined “significant” as in excess of 0.5 liter (500 ml). The typical spills refers to the accidental discharge of fuel oil or hydraulic oil.

15. GRI Environmental Performance Indicator EN16 is for the reporting of Annual Fines & Liabilities for Non Compliance.

16. GRI Environmental Performance Indicator EN35 is for reporting Environmental Compliance Expenditures; Budget, Capital, and Operating Expenses.
Awards

**Kuoni – Green Planet Award** – The Green Planet Award bestowed by Kuoni Switzerland for outstanding environmental standards was established six years ago to recognize eco-minded hotel and resorts and was extended to cruise ships in 2003. The award recognizes exemplary handling of environmental issues, such as energy use, water consumption, waste disposal, plus staff training and guest education regarding environmental concerns. Costa Cruises’ entire fleet was awarded the Green Planet Award for the second year in 2006 and three Holland America’s Vista class ships were honored with the 2006 Green Planet award in December 2006.

**Whale Conservation Program Award** – Holland America Line’s “Avoiding Whale Strikes” program and the cruise company’s leadership and commitment to the conservation of whales is recognized by the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NOAA’s Fisheries Service) with a Conservation Partnership Award. As the first recipient of this award, Holland America Line, is acknowledged a leader in developing comprehensive computer based training program that is used across the maritime industry for preventing whale strikes.

**Green Flag Environmental Award** – The Port of Long Beach has introduced a voluntary speed reduction program as part of the clean air initiative, aimed at reducing the smog producing nitrogen oxides (NOx) emitted by ships. Two of Carnival Cruise Line’s ships are recipients of the Green Flag Environmental Award for a 12-month operating period which started in January 2006. Ships participating in the program observe a 12- knot speed limit in a zone that extends 20 nautical miles seaward from Point Fermin. The Green Flag provides incentives to ship’s operators that participate by discounting the dockage rate by 15 percent, in the following 12 months, if 90 percent of their ships comply with the requirements of the program.

**Cruise Ship Environmental Award** – Dawn Princess’ onboard programs to reduce air and water pollution while operating in San Francisco bay have earned the ship the Port of San Francisco’s prestigious Gold Level Cruise Ship Environmental Award for 2006. The same vessel had won the award in 2005. The annual award recognizes the vessel for demonstrating “the strong commitment of Princess Cruises in the areas of Air Emission Reduction, Wastewater treatment, Recycling and Disposal programs for Solid Wastes.”
Partners

Carnival recognizes that achieving progress in improving environmental management and performance requires a combined effort by Carnival, Operating Line personnel, and other members of the business community with whom Carnival has fostered relationships. In particular, Carnival acknowledges and thanks:

ENSR International

ENSR International (www.ensr.com) provides comprehensive environmental consulting, engineering, and remediation services to the world's leading companies and government agencies. ENSR serves clients from 70 worldwide offices, with 1600 professionals in 60 technical disciplines.

ENSR International conducted environmental compliance and management system audits for the Carnival Corporation & plc worldwide fleet of cruise ships. ENSR's professional environmental auditors examined approximately 75% of Carnival's ships in waters around the world, especially in the Caribbean, the Mexican Riviera, the Mediterranean, the Baltic, the South Pacific, and the Inside Passage. ENSR performed these multimedia environmental audits pursuant to a Consent Agreement reached by Carnival Corporation and the United States.

ENSR's environmental auditors conducted examinations of the ships in the regulatory jurisdictions where they operated. While special emphasis was given to U.S. federal and state regulations, audits frequently investigated compliance with regulations of foreign jurisdictions, including applicable legal requirements for ships operating in regulated waters of the Caribbean, Mediterranean, Baltic, and the South Pacific. According to Bob Gilbertsen, ENSR's Environmental Audit Program Manager who led the project, “We developed special maritime auditing and information management tools and techniques to perform these audits in as comprehensive manner as possible—wherever we were around the world and without disrupting any operations. Our maritime audit protocols allowed us to adjust the regulatory audit criteria based on where the auditors met the ship and on where the ship had sailed since the previous audit.”

For these environmental compliance audits, each ENSR team consisted of at least one Certified Professional Environmental Auditor (CPEA) paired with senior-level retired officers of the U.S. Navy or U.S. Coast Guard. As a result, each team included specialized auditing and maritime expertise to diagnose the full range of cruise ship environmental practices and documented the team's findings in required reports.
Camp, Dresser, and McKee

Camp, Dresser, and McKee (CDM) is a consulting, engineering, construction, and operations firm delivering exceptional service to public and private clients worldwide.

Since 2002, CDM has assisted Carnival Corporation & plc (Carnival) in implementing sweeping environmental compliance assurance measures and establishing a culture of compliance throughout its fleet.

CDM prepared a corporate training catalogue to establish uniform standards for development, delivery and tracking of environmental compliance training throughout the operating lines.

All employees throughout the Carnival organization are required to view a video that was produced by CDM to familiarize employees with a basic understanding of environmental compliance issues that affect the cruise industry.

To make delivery of training of ship-board employees more flexible, CDM developed computer-based training programs covering a wide variety of subject matters that included environmental compliance matters ranging from introductory concepts to specialized concerns; such as hazardous waste management, proper record keeping in the Oil Record Book, and operation and maintenance of shipboard environmental equipment. Equipment training modules included simulations that help reinforce the correct operating procedures for bilge water, gray water and black water systems, as well as processing and incineration systems for food waste and garbage.

Once a year, CDM facilitates a full-day seminar in Miami for senior management personnel from Carnival Corporation and each of the operating lines. This full day seminar includes presentations by professionals with subject matter expertise in legal, regulatory and environmental technical matters relevant to the cruise industry. In the December 2006 seminar, keynote speaker, Mr. Rixio Medina, VP-Health, Safety, Security of Assets, Environmental Protection and Shared Services of CITGO Petroleum Corporation presented CITGO’s integrated management system.
Five Winds International

Five Winds International is a management consulting firm that helps organizations to improve the sustainable value and performance of their activities, products and services by integrating environmental and social considerations into their core decision making processes. Recognized as a world leader in implementing health, safety, environmental and sustainability management systems across complex, international business organizations, the firm provides an international perspective through its offices throughout the United States, Canada, Germany and the Netherlands. Five Winds' diverse expertise ranges from business strategy, management systems, project evaluation and analysis, climate impact strategy, corporate social responsibility, industrial design, engineering and material science, environmental science, resource economics and government policy.

Five Winds worked with Carnival Cruise Line, Holland America Line, Aida Cruises, Princess Cruises, Seabourn Cruise Line, and Carnival Maritime Policy and Compliance department to implement environmental management practices that conforms to the ISO 14001 international standard for environmental management systems (EMS). The effort resulted in the 14001 certification of the Operating Lines in 2006. Beyond certification, Five Winds is involved in a pilot implementation of a requirements tracking database and quality process that will capture, validate, and catalog environmental requirements with regards to operations in ports of call of Carnival Corporation ships throughout the world.
Global Environmental Management Initiative

Global Environmental Management Initiative (GEMI) is a 501(c)(3) nonprofit organization comprised of 41 leading companies, representing more than 22 business sectors, dedicated to fostering global environmental, health, safety (EHS) excellence through sharing of tools and information to help business achieve EHS excellence (www.gemi.org). Through the collaborative efforts of its members, GEMI also promotes a worldwide business ethic for EHS management and sustainable development through example and leadership. GEMI is unique in that it provides a way for companies in a wide range of industrial sectors to work together in a cost effective manner. Members address strategic and tactical issues impacting progressive corporate environmental, health and safety activities in their companies around the world.

Since 1990, the Global Environmental Management Initiative (GEMI) has created tools and provided strategies to help business foster global environmental, health and safety excellence and economic success. GEMI provides a forum for corporate environmental leaders throughout the world to work together, learn from each other through activities of work groups, benchmark with peers, and create tools that can be used by GEMI members and others.

GEMI’s vision is to be globally recognized as a leader in providing strategies for businesses to achieve EHS excellence, economic success, and corporate citizenship.

Carnival Corporation & plc has been a member and active participant of GEMI for three years. Specifically, Carnival representatives have participated in the development of:

- Collecting the Drops: A Water Sustainability Planner, a tool designed to guide the user through the process of taking a corporate sustainability strategy and converting it into a unit strategy for water;
- The Metrics Navigator, a tool to help organizations develop and implement metrics that provide insight into complex issues, support business strategy, and contribute to business success scheduled for completion in 2007;
- A tool for identifying and understanding future trends that will affect the Environment, Health, Safety (EHS) and sustainability landscape to enhance strategic planning.
For More Information

For answers to questions about this report, or for more information regarding Carnival's environmental performance, please contact:

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