

PortMiami & Norwegian Epic

A Need for Innovation



Norwegian Epic

2010 - Norwegian Cruise Line's (NCL) newest vessel, *Norwegian Epic*
Twice the capacity, Twice the crew, Twice the waste



Port Reception Facilities

Large concern for the Norwegian Epic: Limitations of port reception facilities in the Caribbean

MEMORANDUM

MY REF: DOE/C/48/1/07 (43)

FROM: Chief Environmental Officer, Department of the Environment

TO: Sr. Public Health Inspector, Ministry of Health

SUBJECT: Disposal of Waste from Cruise Ships

DATE: February 21, 2007

Kindly be informed that subsequent to yesterday's Meeting of the Board of the Solid Waste Management Authority (SWMA), the Department of the Environment (DOE) advises that commencing 26th February, 2007, **NO** more cruise ship generated waste will be allowed to be offloaded in Belize. This decision was taken due to the following:

1. The Mile 3 disposal site is now overflowing and is presently unable to accommodate for the daily disposal of over 100 tons of waste generated within Belize City itself.
2. The dumping of additional tonnages of waste generated onboard these ships only exacerbates the situation at the site.

A warm hello from all here in Tortola.

Unfortunately due to the strain our local resources are already currently under, the Environmental Health Department has decided to put a stop on all garbage offloads for the foreseeable future. They are currently in the process of having a new incinerator built and I believe, once completed, offloads will be permitted again.

Our apologies for the inconvenience and if you require any additional information please do let me know.

Very much looking forward to your call.

Many thanks and kind regards,
James

James Shearman
Island Shipping and Trading Co. Ltd

Good day Ian

Thanks for your msg which well noted

Due to Sanitary Regulations in Guatemala can't off load garbage ashore any class of garbage is not allowed.

With kind regards,

Miriam De León
Cruise and Tramp Ship Manager
Transmares, S.A.

NCL & Waste Management (WM)

The Creation of the Live-Load Method

Objective: Increase Offload Efficiency

- Decrease offload time
- Increase recycling
- Decrease USDA waste
- Decrease disposal & transportation costs
- Decrease traffic on the pier
- Increase transparency with vendors



Road to Successful Implementation

Proper Equipment

Key tools for separation and the main driver of efficiency



The Live-Load Method

Successful, Efficient Offloading

Before

- Several 40yd3 “Roll-Off Containers required to handle waste
- Congestion on the Pier
- Instances of intended litter dockside



After

- Single 53' Curtain Slide Trailer
- Decrease in congestion on the pier by utilizing only 1 trailer
- Decreases transportation costs



The Live-Load Method

Successful, Efficient Offloading



The Live-Load Method

Incentives for Proper Recycling

The vessel can easily see the benefits of proper separation and improved recycling through the monetary response from our vendors.

Monetary proceeds generated from onboard recycling rebates are returned to the vessels.



The Live-Load Method

Continual Improvement

We are consistently looking for ways to improve offloading methods

- Investments were made, and continue to be made, in proper waste handling machinery.
- The Live-Load Method has generated approximately \$1 million in recycling revenue
- We continue to work with vendors to expand this method to new ports

Thank you

Questions & Further Information

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