# Waste Management Practices for Users of Port Reception Facilities

People need to bring generated marine litter to port and marinas, and marine litter should be discharged to port reception facilities through proper procedures, so that unnecessary litter is not to travel around the ocean. Users of port reception facilities need to bear in mind the procedures of use of port reception facilities. More detailed guidelines are provided in the *Guidelines for providing and improving port reception facilities and services for ship-generated marine litter in the Northwest Pacific region* which were developed by MERRAC as another outcome of MALITA project. Users also need to separate ship-generated marine litter and discharge into the appropriate receptacles depending on the categories.

- Plastics.
- Floating dunnage, lining, or packing material.
- Ground paper products, rags, glass, metal, bottles, crockery, etc.
- Cargo residues, paper products, rags, glass, metal, bottles, crockery, etc.
- Food waste.
- Incinerator ash except from plastic products which may contain toxic or heavy metal residues.

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## **Background**

Marine litter is any persistent, manufactured or processed solid material discarded, disposed of or abandoned in the marine and coastal environment. Marine litter comes from multiple sources, land-based and sea-based sources. In particular sea-based activities include fishing, shipping, recreational activities and passenger ships that generate a significant proportion of marine litter. Among others, sea-based litter such as derelict fishing nets, wire, rope and plastic bags, remains on the seabed, in the water column and on the sea surface. It can also be transported with ocean currents and winds and found on the beaches and shorelines.

Marine litter can cause injury or death of human and other living thing by entanglement and ingestion. Animal might occasionally feed on plastic bag looks like food which may lead them to starvation or malnutrition. Abandoned fishing nets can trap a number of animals and lead to their death consequentially. Vessels can also be damaged by buoyant materials which can result in considerable costs to repair. In this regard, marine litter is now recognized as one of major marine pollution that destroys the ecological, economical and cultural values of the marine and coastal environment.

These guidelines were developed as a part of the NOWPAP Marine Litter Activity (MALITA) in order to provide good action tips how to reduce the amount of marine litter from the sources that will also be helpful to understand regulations on sea-based marine litter and practical principles of environment-friendly behaviors.

### **Global Regulations Related To Marine Litter Management**

There are several global conventions and agreements which aim at protecting the marine environment from marine litter.

- MARPOL Convention (Annex V): Regulations for the prevention of pollution by garbage from ships.
- London Convention: Prevention of marine pollution by dumping of wastes and other matter.
- FAO Code of Conduct for Responsible Fisheries: The Code of Conduct for the appropriate shipboard management.

## **Commercial Shipping**

Shipping is basic process of transporting goods and cargo. Since commercial shipping activities currently increase in the NOWPAP region due to bringing more ocean freighters because of rapid economic development and increasing international trade, the possibility of generating marine litter from shipping sector also increases. Commercial shipping basically creates litter such as straps, sheets, pallets, etc. Regular and systematic check of the shipment status will be an essential step to enhanced marine litter management systems. Shipping activities also generate marine litter like food containers, tableware and motor oil from shipboard life and ship maintenance. The kinds of litter listed below can be generated during shipping. There are some helpful action tips which are common and activity-specific to reduce ship-generated marine litter.

## Examples of Marine Litter Generated from Commercial Shipping Activities

#### **Shipping Activities**

- Sheeting and tarps;

- Straps:

- Containers;

- Pallets:
- Boxes (wood, paper);
- Packaging materials (Styrofoam, pellet and paper).

#### Ship Maintenance and Operation

- Oil and lube bottles;

- Light bulbs;

- Dirty rags;

- Pallet.

#### Shipboard Life

- Plastic material (bags, etc.);
- Beverage bottles and cans;
- Food wrappers and containers;
- Tableware (cups, plates, forks, knives, spoons, etc.);
- Cigarette butts and filters;
- Grocery bags and miscellaneous goods.

#### Action Tips for Reducing Marine Litter

#### Shipping Activities

- Don't use unnecessary packaging materials.
- Store materials safely such as straps, sheets and pallets.
- Put containers securely not to fall out into sea, especially if they contain potentially hazardous materials.
- Don't toss goods or pallets overboard, keep them from falling out into sea.

#### Shipboard Marine Litter Management

- Remove packaging material on shore to eliminate space-consuming waste onboard.
- Never leave used oil or fuel filters unattended. Store them in a safe and secure place.
- Separate and store recyclable materials like cans and bottles, glass, paper, antifreeze, oil, oil filters, and lead batteries.
- Designate a permanent onboard trash bin. Use a container with a lid.
- Install trash compactors on large vessels.
- If trash blows overboard, retrieve it. Consider it "crew-overboard" practice.
- Bring all litter generated during the voyage back ashore.
- Properly dispose of all marine litter on-shore, and use port reception facilities.
- Educate crews about the importance of reducing marine litter and good waste management system on vessels.

#### Activities Related to Shipboard Life

- Pack food in reusable containers rather than plastic bags.
- Use permanent or reusable tableware instead of disposable ones.
- Do not throw away overboard cigarette butts, beverage cans, food wrappers, etc.
- Install a dispensing system for products such as shampoo, soap and lotion.