



JOHOR PORT AUTHORITY

# GREEN PORT POLICY



**Towards Sustainable Port  
Operation & Development**

*In Collaboration With*

**JOHOR PORT BERHAD  
PELABUHAN TANJUNG PELEPAS SDN BHD  
GERMAN TECHNICAL COOPERATION (GIZ)**



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## **MESSAGE FROM THE GENERAL**

Johor Port Authority (JPA) is the regulatory body for the two major ports in Johor, i.e. Pasir Gudang Port (PGP) and Port of Tanjung Pelepas (PTP). Both Pasir Gudang Port (PGP) and Port of Tanjung Pelepas (PTP) continue to grow and handle ever increasing cargo volume. In addition, there is now massive development of oil and gas activities within both ports especially at Tanjung Bin area in PTP and Pengerang area in PGP. With these developments, managing and maintaining a good safety, health and environment record has become an increasing challenge for all those involved in port operations. Every port operator will need to place great emphasis on improving performance through better safety, health and environment management system and initiatives.



There is now greater need to focus on safety, health and environment in port operation in the wake of greater global awareness. Both PGP and PTP being part of the global logistics chain used by major shipping lines will need to be more active in promoting safety, health and environment agenda in their day to day operations. A good safety, health and environment record in ports will improve efficiency in operation and cost of operation. At the same time better working environment may be established that will benefit both port workers and its customers.

It is with the above intentions in mind that JPA has come up with the Green Port Policy that will act as a general guide for all port operators in moving towards a green port environment. The Green Port Policy has been identified as one of the Key Performance Indicators (KPI) for creating a safe and healthy port working environment under JPA's Strategic Plan 2013 - 2020.



The Green Port Policy acts as a standard document for the integration of environmental sustainability principles and initiatives to guide business decisions, development and operations towards achieving a sustainable port development and operation. We believe this will add value to our mission to enhance the competitiveness of ports in Johor.

**Muhammad Razif Ahmad**

General Manager

Johor Port Authority



## JOHOR PORT AUTHORITY (JPA) GREEN PORT POLICY

***JPA GREEN PORT POLICY*** serves as a guide for decision making and establishing a framework for environmentally friendly port development and operation. It is our aspiration that the Green Port Policy will act as a **catalyst towards more sustainable port operation and development in Malaysia.**

As the regulatory authority, JPA has oversight over all development within the waters of Pasir Gudang Port (PGP) and Port of Tanjung Pelepas (PTP). This includes ensuring the safety of port development and operation as well as to ensure any port development has minimal impact on the environment. We also hope the Green Port Policy will encourage port operators, port users and everyone in the port community to become more



creative and innovative and to adopt a more sustainable business approach in their day to day operation.

The Green Port Policy outlines some simple principles, strategies and practices in areas where port development and operation can be both environmentally friendly and commercially viable. The Green Port Policy suggests some proactive approaches and simple solutions where impacts on the local community and the environment can be better managed.



**The POLICY guiding principles are:**

- 1) To protect the community from harmful environmental impacts as a result of port operations;**
- 2) To maintain a balance between the environment, social and economy in any port planning, development and operation;**
- 3) To inculcate sustainability within the framework of the organization focusing on increasing awareness and the use of sustainable materials or technologies;**
- 4) To provide principal direction within the port towards environmental compliance and conservation;**
- 5) To prevent pollution and improve personal, community and environmental health;**
- 6) To encourage positive impacts beyond economic benefits to the surrounding community;**
- 7) To engage and communicate with the community; and**
- 8) To use energy, electricity and fuel saving initiatives.**

## JPA GREEN PORT POLICY ELEMENTS



## **OVERALL OBJECTIVE AND BASIC PROGRAM**



### **ENVIRONMENT**

**Air Quality**

**Water Quality**

**Aquatic Ecosystem & Marine Habitats**

**Waste Management**

**Environmental Management**



## AIR QUALITY



### **Overall Objective 1:**

To reduce harmful air emission from port activities and from vessels

### **Basic Program:**

1. To engage experts (external) to monitor air pollutants, ambient air limits, API.
2. To establish air monitoring stations for pollution and air quality control.
3. To control emission of smoke / plume and to reduce greenhouse gas emission from vessels, trucks and terminal equipment.
4. To determine the amount and quality of fuel burn by vessels when at berth.
5. To do baseline study for the implementation of Annex VI of MARPOL Convention.
6. To encourage the use of alternative modes of transport by employees, in order to reduce greenhouse gas emissions.
  - a. Provide cycling facilities.
  - b. Provide a bus to operation areas.
7. Green Flag Incentive Program:
  - a. Vessel Speed Reduction Program
  - b. Clean Fuel Program
  - c. Clean Vessel Program
  - d. Clean Truck Program



## WATER QUALITY



**Overall Objective 2:**  
To protect and improve  
water quality

### **Basic Program:**

1. To coordinate and implement water quality monitoring program.
2. To ensure water quality monitoring on routine basis.
3. To monitor and control domestic and industrial wastes.
4. To conduct water sampling monitoring of monsoon drains outside tenant's perimeter.
5. To engage experts (external) for water quality monitoring.
6. To initiate water quality campaign.
7. To develop SOP and establish a benchmark to will prevent oil and chemical spillage into the reservoir (ERP, ISO 14001).

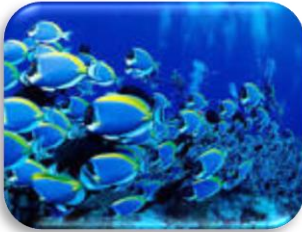


**Basic Program (continued):**

8. To conduct joint environment audit observation program.
9. To coordinate beach cleaning activities.
10. Conducting regular inspections of all Port facilities to ensure compliance with regulations and employ best management practices for minimizing water pollution.
11. Monitoring water quality around dredging projects to ensure that contaminants do not exceed water quality standards.
12. To ensure all new development complies with local regulations / Federal Acts (EQA, EIA Report).



## AQUATIC ECOSYSTEM & MARINE HABITATS



### Overall Objective 3:

To protect, maintain or restore aquatic ecosystem and marine habitats

#### Basic Program:

1. To develop programs that will protect and conserve the shore, mangrove forest and habitats.
2. To prepare tools and equipment in the event of oil spill within the port limits.
3. To develop plans, policies or strategies for ballast water management (BWM 2004).
4. To conduct baseline study for ballast water management in port limit.
5. To collaborate with other agencies to provide educational materials concerning ballast water management regulations (BWM 2004) to the port community in support of the state and federal invasive species prevention programs.
6. To conduct studies and monitor the effects of port operations on aquatic ecosystem.
7. To implement “adoption programs” for certain potentially sensitive areas such as a “Marine Sanctuary Area”.

## WASTE MANAGEMENT



### **Overall Objective 4:**

To have proper waste management system to reduce environmental and health impact

### **Basic Program:**

1. To implement a waste management plan, including identification of opportunities to reduce the amount of waste being disposed.
2. To provide a dedicated storage area for the separation, collection and recycling of waste with good access for all building occupants and for collection by recycling companies.
3. To encourage 3 R (Reduce, Reuse, and Recycle) practice.
4. Ensure the safe storage and handling of hazardous wastes.

**Basic Program (continued):**

5. To identify hazardous wastes and secure appropriate licenses/approvals.
6. To ensure correct handling and storage of hazardous wastes and removal/disposal by licensed contractor to approved facility.
7. To have proper waste management system / procedure for handling wastes from vessels.
8. To initiate the establishment of Port Reception Facilities (PRF) at the ports, subject to land area, cost and requirements.

## ENVIRONMENTAL MANAGEMENT



### Overall Objective 5:

To identify the risks and opportunities resulting from economic, social and environmental factors (Sustainability)

### Basic Program:

1. To implement an Environmental Management System (EMS) accredited to ISO 14001.
2. To engage stakeholders about environmental issues.
3. To maintain better relationship and communication with stakeholders.
4. Implement a formal public complaints procedure.
5. Prepare a Traffic Management Plan (TMP) to minimize impact on vehicle and pedestrian traffic.



**Basic Program (continued):**

6. To comply with relevant planning and environment legislation.
7. Encourage innovation in environmental management across all aspects of planning, development and operations.
8. To educate developers, tenants and employees about EMS and how to improve sustainability.
9. Implement awareness program and training for stakeholders on minimizing environmental impacts.

## **OVERALL OBJECTIVE AND BASIC PROGRAM**



## **COMMUNITY ENGAGEMENT**



### **Overall Objective 1:**

To interact with and educate the community regarding port operations and environmental programs

#### **Basic Program:**

1. To develop environmental protection programs.
2. To communicate and increase the understanding of JPA Green Port Policy and program.
3. To raise overall level of environmental awareness and involvement among the community.
4. To increase community awareness regarding safety and environment impact from port operations.
5. To publish and circulate articles relating to JPA Green Port Policy and programs to the community via newsletter / internet.
6. “Environmental Awareness Program” to increase community awareness to preserve the environment especially within “RAMSAR” site.
7. To communicate with the owners of floating fish farm, restaurants, fishing grounds regarding the massive development within the port limit.

## **OVERALL OBJECTIVE AND BASIC PROGRAM**



**PROMOTE  
SUSTAINABILITY**



### **Overall Objective 1:**

To implement sustainable practices in the port

#### **Basic Program:**

1. To develop programs to ensure that the balance between port development and the environment is maintained.
2. To keep parties involved informed regarding the port activities within the context of sustainability.
3. To promote a variety on incentive programs for port community that relates to sustainability.



### **Overall Objective 2:**

To use Green Technology Initiatives by employing best equipment and practices to reduce environmental impacts

### **Basic Program:**

1. To engage with the experts in developing Green Technology Initiatives.
2. To implement energy, electricity and fuel saving initiatives.
3. To encourage the use of LED system in the port.
4. To maintain green landscaping.
5. To implement paperless program.
6. To source energy from alternate energy sources and use less greenhouse intensive fuels.
7. To initiate installing / providing shore-ship power connections.



### **Overall Objective 3:**

To reduce water consumption to maintain water resources and availability

#### **Basic Program:**

1. To install water efficient fixtures and fittings such as toilets, urinals, taps and basins.
2. To manage and monitor water usage and any leakage.
3. Reduce the quantity of water used for landscaping.
4. To provide a rainwater harvesting system (rainwater tank) and use rainwater to reduce consumption of potable water.

## **CONCLUSION**

The JPA Green Port Policy will drive port operation and development in Johor that is based by the ethics of sustainability and greater responsibility towards the environment and the community.



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