

A large white cargo ship is docked at a port. The ship has multiple decks with windows and a complex superstructure. In the background, a large gantry crane is visible, with the name 'BROMMA' and the 'Dole' logo on its side. The foreground shows stacks of cargo containers and other port infrastructure. The entire image has a blue tint overlay.

Environmental Management Systems: Systematically Improving your Performance

EMS

Ports Sector

Catching the Wave of Sustainable and Secure Port Communities

Public ports face numerous, daunting challenges as they strive to meet the growing demand of international trade. Escalating environmental compliance requirements, emerging security standards, and the need to maintain and strengthen community confidence all challenge ports to analyze, manage, and control the consequences of their every activity. Today's market realities require new approaches to achieve sustainable, secure ports.

Ports across the globe have found adoption of Environmental Management Systems (EMSs) is a way to plan for continuous improvement in environmental performance. Ports nationwide have realized some of the following benefits by implementing an EMS:

- Improved community relations and public image
- Increased cost savings
- Improved environmental compliance and performance
- Improved internal communication
- Reduced risk and improved security

If you are looking for a proven, efficient way to manage your port in an environmentally friendly and secure way, then an EMS may be right for you.

“We see the EMS as a valuable tool to help us meet the environmental challenges facing our port. We have seen enough positive signs with our pilot program, that we are encouraged to expand the program port-wide to cover all aspects of our operations. The response from affected employees has been very positive.”

—*Ralph G. Appy, Ph.D., Director of Environmental Management,*
Port of Los Angeles



Environmental Management System (EMS) Fundamentals

An EMS weaves environmental decision making into the fabric of an organization's overall business practices, facilitating compliance while improving performance. An EMS's systematic approach allows organizations to be more efficient, more competitive, and better able to meet important challenges. While each EMS is unique, most follow the Plan-Do-Check-Act model. A Plan-Do-Check-Act approach establishes a framework to examine the environmental aspects of your organization, then develop, implement, monitor, review, and revise environmental programs and procedures to continually promote improvement. Many ports already have components of an EMS in place that they can build upon, such as written and unwritten procedures, best management practices, and regulatory compliance programs.

An EMS's systematic approach also can be applied to your port's security management while assisting with emergency response planning.



Improve Your Port's Public Image

EMSs provide you with a structured and comprehensive way to demonstrate your environmental efforts to the communities in which you operate and serve. Ports that adopt EMSs can enjoy improved community relations, and overall public image. You can use an EMS to identify opportunities to not only inform, but also to involve communities in environmental issues. By engaging the local community, as well as tenants and carriers, you can build credibility and trust for your port.

Ports that adopt EMSs also can build a positive relationship with regulators by taking advantage of available state and national programs, such as the U.S. Environmental Protection Agency's National Environmental Performance Track, which offer incentives ranging from public recognition to regulatory flexibility to facilities that consistently perform beyond regulatory compliance.

“There are a lot of eyes on the port because our drinking water wellhead is near solvent-contaminated sites with ongoing remediation. The Department of Ecology and the City of Vancouver, both having roles in protecting our community's drinking water, were very pleased to learn about our EMS effort. The EMS ultimately will help coordinate cleanup efforts with the protection of our drinking water system.”

—Larry Paulson, Port Executive Director,

Port of Vancouver (WA)

“Because a residential area abuts our port, outreach to the surrounding community is a priority. At Massport, we strive to be good corporate citizens as well as good neighbors. Informing the local community about various Massport programs and initiatives at our facilities helps us to accomplish this. Our efforts to implement more sound environmental policies, such as those outlined in the EMS, are certainly appreciated and in this case applauded.”

—Michael A. Leone, Port Director,

Massachusetts Port Authority



Identify Opportunities to Reduce Costs

Ports that implement an EMS can experience cost savings, even within the preliminary stages of EMS development and implementation. Savings attributed to EMS include:

- Increased operational efficiencies;
- Lower insurance premiums and improved bond ratings;
- Reduced water and energy use; and
- Reduced waste and associated disposal costs.

For example, the Port of Houston expects by 2005 to reduce energy consumption by five percent by making building modifications and re-powering crane engines.

Upfront costs for an EMS can be quickly recovered through its early identification of pollution prevention initiatives, potential liabilities, and opportunities to reduce risks.

In addition, an EMS can help you weigh the costs and benefits of potential environmental improvements so that you can make informed decisions.

“Our EMS helps us meet our environmental goals while at the same time saving money. In 2001 the Port of Portland began targeting product categories, such as paper towels, office paper and toner cartridges, for environmentally preferable purchasing. Within two years, 74 percent of our purchases of these products were environmentally preferable and, in addition, saved the port more than \$60,000 annually.”

—Bill Wyatt, Port Executive Director,

Port of Portland (OR)



Facilitate Environmental Compliance while Improving and Measuring Performance

Complex and stringent environmental laws and regulations compel ports to consider formalized systems to identify and resolve environmental problems, reduce liabilities, and manage risks. An EMS's systematic approach can bring a sense of order to the environmental compliance process and keep environmental issues from falling through the cracks, which can result in violations and fines.

Likewise, you can proactively improve performance in priority areas; for example, reducing air emissions, improving water quality, and minimizing impacts of growth. An EMS helps ports set goals and measure progress.

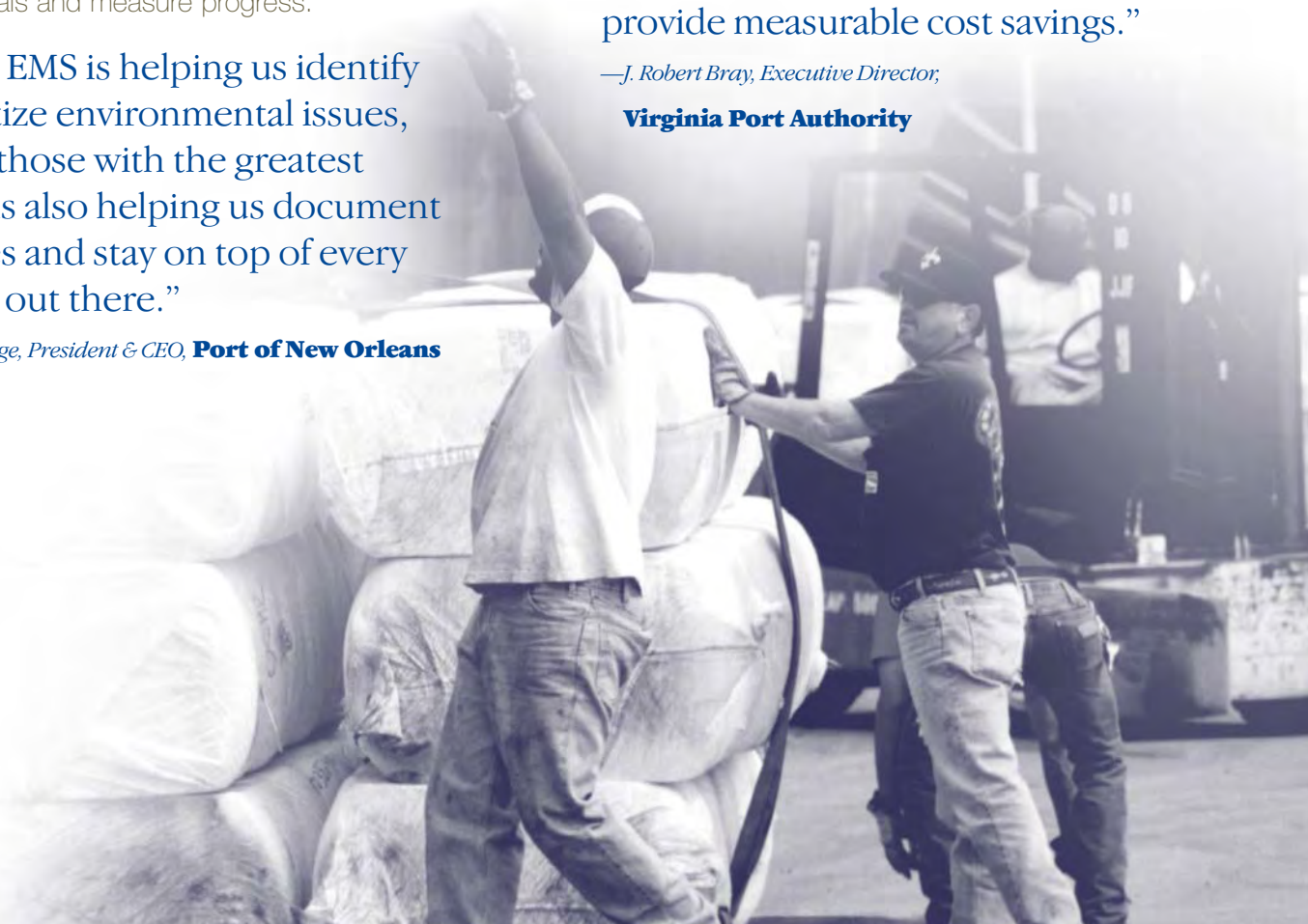
“Our port’s EMS is helping us identify and prioritize environmental issues, especially those with the greatest impact. It is also helping us document procedures and stay on top of every regulation out there.”

—Gary P. LaGrange, President & CEO, **Port of New Orleans**

“The Port of Virginia’s EMS is encouraging port operators to be more proactive in exceeding compliance requirements. It is our hope that this positive approach will result in quantifiable reductions in air and water quality impacts as well as improve operational efficiency and provide measurable cost savings.”

—J. Robert Bray, Executive Director,

Virginia Port Authority



Open Channels of Internal Communication

Effective communication among employees plays a critical role in improving a port's operational efficiencies. Proactive communication also can lead to increased employee morale and elevated employee retention rates. Ports that communicate about their EMS effort and expand opportunities for employee participation often boast more informed, involved, and proactive employees.

Forthright communication with employees also demonstrates commitment to environmental protection and worker safety. Employee participation on EMS implementation teams gives them an important and empowering role in decision making.

“An EMS allows everyone to feel ownership of environmental responsibility, from the top to the shop. It provides a common language for people to understand because it helps define their jobs and responsibilities.”

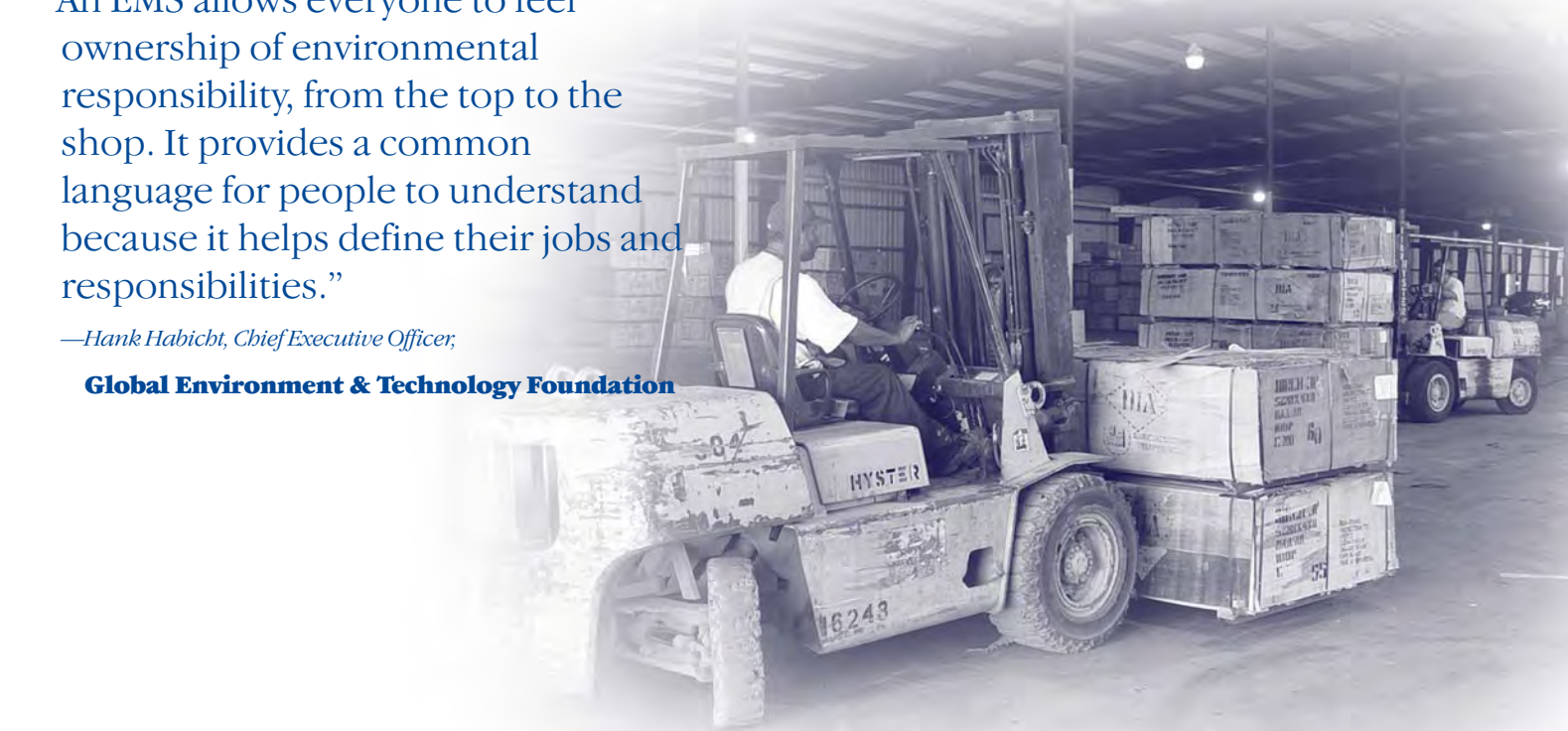
—Hank Habicht, Chief Executive Officer,

Global Environment & Technology Foundation

“Morale is high. When we presented the EMS initiative to our maintenance and facility personnel, we stressed that the suits are not coming down and telling you what to do. We all work side-by-side, and when we start identifying procedures, everyone is involved in the process.”

—Rick Larrabee, Director, Port Commerce Department,

Port Authority of New York & New Jersey



Enhance Security to Meet New Demands

Ports play a vital role in national and regional economies as well as in the country's national defense. Preventing security vulnerabilities at ports is a priority of utmost importance. An EMS offers a systems approach to effectively identify, assess, manage, and prevent security risks, some of which are also environmental risks.

The system's Plan, Do, Check, and Act method allows for the integration of environmental and security risk assessment. An EMS can help protect ports by:

- Integrating security into everyday operations;
- Identifying threats and risks;
- Incorporating emergency response planning; and
- Improving employee vigilance.

An EMS allows ports to handle today's increased trade in a secure and environmentally responsible way.

“The requirements and demands of port security literally have changed overnight. Using a systems approach allows us to manage the rapidly changing security regulations and deadlines. Today, the approach is helping the Port of Houston identify and prioritize vulnerabilities and risks so that we can make security better, faster.”

—James T. Edmonds, *Chairman,*

Port of Houston Authority



Get Started with an Environmental Management System

Now that you've learned how an EMS can enhance your port's public image, reduce costs, improve environmental compliance and performance, improve internal communication, and reduce risk and improve security, here are a few steps to get you started.

Take Advantage of Assistance and Tools Tailored to the Ports Industry

The American Association of Port Authorities (AAPA) and the Global Environment and Technology Foundation (GETF) are working with EPA's Sector Strategies Program to help public ports develop EMSs. Take advantage of the customized training resources, expertise, and support available through this partnership. To begin developing your port's own customized EMS, refer to numerous online resources including a list of Technical Assistance Providers, sample documents, as well as other EMS tools by visiting www.epa.gov/ems and www.peercenter.net. Other organizations, such as state environmental agencies, universities, and AAPA's Sustaining Members, may also offer EMS expertise. For more information about EPA Sector Strategies Program, visit www.epa.gov/sectors.

You also can work with AAPA to ensure that your port's voice is heard in discussions with EPA about future environmental programs by getting involved in AAPA's Harbors, Navigation and Environment Committee (www.aapa-ports.org/programs/hne).

Start Small and Build Momentum

An EMS is based on common sense and intuitive business decisions. Learn from the tools listed above, then start by taking small, achievable steps and build momentum from there. To be effective, you will need proactive involvement from senior management, front-line workers, and supervisors throughout your port. Keep the big picture in mind, but define reasonable expectations, set goals and timeframes in line with your expectations, then monitor progress, making corrections where necessary. Capitalize on any elements of an EMS your port may already have in place to advance to the next level in environmental management.



Ports with EMSs in Place



The Port of Houston Authority

Houston, Texas
www.portofhouston.com



PORT OF HOUSTON AUTHORITY



Massachusetts Port Authority

East Boston, Massachusetts
www.massport.com



PORT OF PORTLAND

Port of Portland

Portland, Oregon
www.portofportland.com

Ports Developing EMSs



The Port of Corpus Christi

Corpus Christi, Texas
www.portofcorpuschristi.com



Port Everglades

Broward County, Florida
www.broward.org/port



The Port of Los Angeles

San Pedro, California
www.portofla.org



The Port of New Orleans

New Orleans, Louisiana
www.portno.com



**THE PORT AUTHORITY
OF NY & NJ**

The Port Authority of New York & New Jersey

New York, New York
www.panynj.gov



Port of Vancouver

Vancouver, Washington
www.portvanusa.com



Virginia Port Authority

Norfolk, Virginia
www.vaports.com

Discover what other leading ports across the country are finding—

EMS is a Good Business Decision

“Port Everglades operates in a sensitive environment and in an area that is very dependant on tourist-related dollars. We have to be environmentally proactive. Our EMS is formalizing our practices and establishing an operating philosophy that will sustain itself.”

—Ken Krauter, Port Director, **Port Everglades**

“One of the greatest benefits of having an EMS comes from the confidence that it provides. We know we are managing our environmental responsibility and lessening the potential of environmental problems.”

—John P. LaRue, Executive Director, **Port of Corpus Christi Authority**



Sector Strategies

Insight • Innovation • Results

EPA's Sector Strategies Program is a cooperative working relationship among government, trade groups, and other stakeholders to reduce pollution and ease the burden of regulation. For more information, visit www.epa.gov/sectors or contact your trade association.



**Global Environment &
Technology Foundation**

September 2004