Fiscal Year 2019
Risk Assessment Report
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DEPARTMENT RISK PROFILES

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I. PURPOSE AND INTRODUCTION

This Enterprise Risk Assessment (“ERA”) has been performed by the Port of Houston Authority (“PHA” or “Port Authority”) Internal Audit Department for Fiscal Year (“FY”) 2019. The purpose of the risk assessment is the determination of quantitative and/or qualitative value of risk related to a concrete situation and a recognized threat. The risk assessment is a process that supports our efforts in developing the Annual Audit Plan.

The main purposes of the Annual Audit Plan are:

a) to determine priorities and to establish the most cost-effective means of achieving audit objectives;
b) to assist in the direction and control of audit work;
c) to help ensure that attention is devoted to critical aspects of audit work; and
d) to help ensure that work is completed in accordance with planned targets.

This approach will provide full coverage of PHA division over a specific period rather than re-visit every sector annually.

Our methodology is consistent with professional standards and considers available resources, cost versus benefit, and will allow us to advance the quality of the assessment each cycle.

As a whole, the annual ERA process considers:

- The Port Authority’s Risk Universe
- Current Internal Controls
- Information Technology
- Financial Impact
- Operational areas of concern identified by management
- Results of previous audits
- Fraud, waste and abuse

II. BACKGROUND

The Port of Houston Authority’s strong historical connection to Harris County, beginning with its origin as the Harris County Houston Ship Channel Navigation District in 1911, is reflected throughout the historical statutes governing the Port Authority, even though it has since evolved into a more independent organization accountable to four appointing entities. At the same time, Harris County taxpayers have a vested interest in the Port Authority’s financial health, as they approve and pay property taxes to support the Port Authority’s bonds, and they benefit from the economic activity generated by the Port Authority’s capital investments, recently estimated to have an approximate impact of $265 billion on the Texas economy. Currently, Harris County taxpayers pay approximately $50 million per year to fund debt service on the PHA’s outstanding general obligation tax bonds.

The Port Authority Internal Audit Department operates pursuant to Chapter 5007, Texas Special District Local Laws Code, effective September 1, 2013 which requires that:
• the Port Authority to establish an internal audit function in accordance with accepted internal auditing standards as described in Chapter 2102, Texas Government Code (the “Texas Internal Auditing Act”);
• the Port Commission to hire a chief audit executive and approve the risk-based annual audit plan;
• the internal audit function to report to an internal audit task force of the Port Commission; and
• the Port Authority to provide internal audits to the Harris County Auditor and appointing entities upon request and make its internal audit plan available on its website.

The statue also requires the internal auditor to coordinate audit activity relating to compliance reviews; reviews of internal controls; Harris County audits; contracted audits; performance reviews; investigations of reported ethics violations or fraud; and compliance with laws relating to Promotion and Development Fund expenditures.

III. METHODOLOGY

The Internal Audit Department within the Port of Houston Authority adheres to professional standards issued by the Government Accountability Office (“GAO’s Yellowbook”) and the International Standards of the Professional Practice of Internal Auditing (“Redbook”) per the Institute of Internal Auditors (“IIA”). Both sets of standards require a risk-based approach to identify the scope and objectives of the audit planning and to properly design audit procedures.

The Redbook specifically requires an ERA process be performed annually as a primary driver to support the annual audit plan while the Yellowbook requires that risk be considered at the engagement/process level.

The ERA considers primarily inherent risks, with limited identification of control risk as self-reported by management. The ratings do not imply a judgment on how management is addressing risk and thus is not a specific assessment of management performance nor concludes on ‘residual risk’. The actual process performed will allow us to test more comprehensively where necessary.

The ratings were determined by applying each key business process within each Department to the weighted criteria identified below.

For example, a “High” rating indicates that conditions and events which prevent the Port Authority from achieving its objective within that process could have a significant impact in terms of disruption to essential services, financial loss, safety, impediments to economic development, or negative perception. In contrast, a “Low” rating indicates that the impact of such an occurrence or aggregated occurrences would be minimal.
IV. RISK IDENTIFICATION

- **CONTROL RISK** – the perceived likelihood and impact of deficiencies in management controls put in place to ensure the achievement of objectives, protection of assets, financial reporting, etc. These are based on managerial decision-making, risk management techniques, and strategy which are generally within the accountability and control of operational management.

- **INHERENT RISK** – the perceived likelihood and impact associated with an entity or activity that exists simply from the perspective of its current environment. This assumes no significant actions taken by management to mitigate (address) those risks.

- **RESIDUAL RISK** – the level of impact and likelihood of an adverse event occurring to impede the Port Authority, Department, and/or Key Business Processes from achieving success after identifying and testing of management (internal) control structure.

V. COMPONENTS OF THE ANNUAL RISK PROCESS

- Notable Changes
- Significant Events
- Organizational and Operational Changes
- Consideration of Significant Reliance on Information Technology and Systems
- Departmental Risk Profile

VI. NOTABLE CHANGES

Applying the risk based methodology as noted above in preparation of the FY2019 Annual Audit Plan, the Internal Audit Department considers significant changes of events, operational and/or business processes, as well as changes in departmental leadership that have occurred since the last risk assessment update.

These changes, whether individually or collectively, may have an effect on the way the Port Authority conducts business operationally and the resources available. The Internal Audit Department considers these factors in preparation of the Annual Audit Plan.

VII. STRUCTURAL CHANGES TO THE RISK UNIVERSE

Changes to the Risk Universe are considered when there are departmental and/or management structure changes; functions/responsibilities/processes are added, or eliminated; and consolidation or centralization occurs between Departments or on a PHA-wide basis.

- No major structural changes were identified in the organization. However, it was noted that the Safety Department’s reporting changed from the PSEO division to the Finance division. The Infrastructure division created a Manager of Engineering Design and Planning role to improve the control of and visibility to the Port Authority’s capital projects portfolio.

- The Infrastructure division added the Technical and Business Analytics department to address complex challenges and increase focus on service levels.
There was one notable strategic change in the Human Resources area whereby the Authority has transitioned to a self-insured medical plan.

VIII. CONSIDERATION OF SIGNIFICANT INFORMATION SYSTEMS

Utilizing a risk-based approach as required by the standards, the Internal Audit Department will consider the Port Authority’s information technology systems that have been implemented, as well as the technology initiatives that are being developed, which affect operational and business processes.

The primary considerations impacting information technology are:

- Cyber security monitoring and enhancements including
  - Initial implementation of disaster recovery data center with service level agreement
  - Implementation of secondary internet service provider (ISP) for redundancy and business continuity, along with an increase of bandwidth at disaster recovery data site
  - Implementation of session initiation protocol (SIP) networking capability for voice calls
  - Upgrade of Microsoft Exchange email system from on-premise to hosted on the cloud Microsoft Office 365
  - Approved Cyber Security policy
  - Adoption of 19 key National Institute of Standards and Technology (“NIST”) standards

- Maximizing the use and functionality of JD Edwards - the enterprise resource planning (“ERP”) system of record
  - System upgrade impacting all modules
  - Migration to cloud-based servers
  - Enhancements to user access security

- Reducing the number of business unit sub-systems by an automated interface
  - Successful upgrade from Express to Navis N-4 at BCT container terminal

- Improvements to user access controls

IX. KEY BUSINESS PROCESSES

In context of the ERA, a Key Business Process (“KBP”) is defined as a vital business procedure, function or activity on which a department spends a significant amount of financial or personnel resources to perform, or an activity over which it has primary responsibility within the Port Authority. KBPs also represent areas upon which audits or reviews can be conducted by internal auditors or external consultants.

The common KBP’s are identified as follows:

- Administration
- Compliance
- Information Technology (“IT”)
- Financial Management
- Procurement
- Operations
- Health, Safety, Security and Emergency Response
- Revenue Generation (and Collection)
• People/Human Resources (“HR”)
• Infrastructure
  o Project and Construction Management
  o Environmental
  o Channel Development

X. DEPARTMENT RISK PROFILE UPDATES

The assessment was then structured based on available resources, time constraints, and cost-benefit considerations. As a result of this year’s process, the key risks that remain within the Port Authority from the perspective of an auditable business process or technology considerations are:

• Administration
• Commercial/Revenue
• Finance
• Infrastructure
  o Project and Construction Management
• Information Technology
• Procurement
• Operations
• Health, Safety, Security and Emergency Response
• Legal
  o Regulatory and Contract Compliance

These risk profiles are discussed in the following pages.
Administration

Mission and Objectives
- To move the world and drive regional prosperity with a vision of becoming America’s distribution hub for the next generation.
- Key components of this mission include execution of policies and procedures and staff development opportunities.

Notable Recent Changes
No major revisions to organizational structure were noted.

Significant Activities
- Transition to a self-funded medical plan
- Departmental leadership changes
- Employee turnover (retirements, attrition)
- Enhanced management training and development initiatives

Administration Risk Profile

<table>
<thead>
<tr>
<th>Key Business Process</th>
<th>Potential Risks</th>
<th>Mitigation Risk Techniques</th>
<th>Risk Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulations and Policies</td>
<td>Conflict between Employee Handbook and policies, Outdated policies and procedures, Informal/unwritten policies and procedures, Unknown new regulations</td>
<td>Development of compliance inventory, Revised Employee Handbook with linkage to relevant policies issued, Conflicts approved by Executive Director or Port Commission, External monitoring agents engaged</td>
<td>Low/Medium</td>
</tr>
<tr>
<td>Strategic Mission/Vision</td>
<td>Mission, vision, values are not clearly defined, Inconsistent adherence to mission, vision, values</td>
<td>Established mission, vision, values, Mission, vision, values are modeled at the top, Training for all employees</td>
<td>Low/Medium</td>
</tr>
<tr>
<td>People</td>
<td>Aging workforce, Lack of succession planning, Noncompetitive compensation and benefits, Noncompliance with HIPPA regulations</td>
<td>Strategic plan incorporates people issues, Developed succession plan, Periodic market review/analysis of comp and benefits, Increased training/awareness efforts</td>
<td>Medium/High</td>
</tr>
<tr>
<td>Staff Development/Training</td>
<td>Employee turnover, Higher frequency of avoidable errors/omissions</td>
<td>Updated job descriptions, Career guidance, Staff training</td>
<td>Medium/High</td>
</tr>
<tr>
<td>Code of Ethics</td>
<td>Conflicts of interest, Threats to integrity of processes</td>
<td>Ethics training, Annual re-acknowledgement of Ethics Policy</td>
<td>Low/Medium</td>
</tr>
<tr>
<td>Communication</td>
<td>Unclear and/or inconsistent application of policies and procedures, Reactive response to risks, Increased risk of inadvertent violations of regulations, Increased risk of litigation</td>
<td>Entity-wide communications/Intranet, Strategic Planning Process with Linkage to Employee Goals, Internal Communications Team, Townhall meetings</td>
<td>Medium/High</td>
</tr>
</tbody>
</table>
Commercial

Mission and Objectives
- To grow and diversify revenues to support PHA’s mission.
- The Port Authority is reliant on its business activities to generate revenues to fund its operations.

Notable Recent Changes
Revenue is generated from many sources. The addition of new customers and increased volumes from existing customer has contribute to revenue growth. Growth and focus in global trade has resulted in a substantial increase in Foreign Trade Zone (“FTZ”) activities.

Significant Activities
- Increased vessel traffic
- Larger number of containers handled
- More tonnage being transported via larger vessels
- Lease renewals, permits, licenses
- Manual utility allocation to terminal users
- Self-Reporting of throughput requirements

Commercial/Revenue Risk Profile

<table>
<thead>
<tr>
<th>Key Business Process</th>
<th>Potential Risks</th>
<th>Mitigation Risk Techniques</th>
<th>Risk Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulations and Policies</td>
<td>Outdated or lack of documented processes</td>
<td>New policies and procedures</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Non-compliance with tariffs, local, state, or federal regulations</td>
<td>Review of tariffs and contracts for compliance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Over-reliance on the customer’s self-reporting process</td>
<td>Perform periodic audits</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Incorporation of modifications to contract terms</td>
<td></td>
</tr>
<tr>
<td>Rates</td>
<td>Inaccurate fees, rates, and tariffs</td>
<td>Agree all fees, rates, and tariffs to active contracts</td>
<td>Low/Medium</td>
</tr>
<tr>
<td></td>
<td>Outdated pipelines fees</td>
<td>Perform periodic audits</td>
<td></td>
</tr>
<tr>
<td>Billing/Invoicing</td>
<td>Invoices not posted timely</td>
<td>Monthly financial reconciliations</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Customers are inaccurately charged for cargo</td>
<td>Reconciliations of operating reports</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perform periodic audits</td>
<td></td>
</tr>
<tr>
<td>Access to Customs &amp; Border Protection (CBP) database</td>
<td>Under or non-reporting of vessel movements (Harbor fees)</td>
<td>Reconciliation to CBP database and other available data</td>
<td>Low/Medium</td>
</tr>
</tbody>
</table>
Finance

Mission and Objectives
- To provide reliable financial information supporting innovative decision-making;
- To deliver cost-effective funding in support of operations and obligations;
- To manage risks responsibly, efficiently, and with accountability;

Notable Recent Changes
- Safety Department transitioned to Risk Management from PSEO

Significant Activities
- Changing financial reporting regulations (e.g., retirement, OPEB)
- Significant growth in existing business lines
- Staffing turnover

Finance Risk Profile

<table>
<thead>
<tr>
<th>Key Business Process</th>
<th>Potential Risks</th>
<th>Mitigation Risk Techniques</th>
<th>Risk Rating</th>
</tr>
</thead>
</table>
| Regulations and Policies | Outdated or lack of documented processes  
Non-compliance with tariffs, local, state, or federal regulations | • New policies and procedures  
• Review of tariffs and contracts for compliance  
• Perform periodic audits | Low/Medium |
| Treasury | Funding constraints  
Cost of funding  
Trustees/Administrators of Pension assets  
Investment risks  
Market risks | • Established presence in lending community  
• Adherence to covenants  
• New statutory training requirements for pension assets trustees  
• Adherence to Investments policies  
• Monitoring by advisors | Low |
| Controllership | Misstated financial statements  
Customers are inaccurately charged for cargo  
Asset impairment | • Annual external audit  
• Monthly financial reconciliations  
• Reconciliations of operating reports  
• Improved coordination with Commercial and Operations Divisions  
• Periodic internal audits | Low/Medium |
| Employee Safety | Injury or loss of life due to unsafe conditions  
Unsafe work practices | • Routine safety assessments performed  
• Policies and practices ensure safety rules are followed  
• Use of personal protection equipment is encouraged and enforced | Medium/High |
| Risk Management | Unidentified risks | • Improved coordination with Commercial and Operations Divisions | Medium |
Infrastructure

Mission and Objectives
- To execute projects and programs to develop and sustain Port Authority infrastructure while maintaining the highest levels of professionalism, integrity, and fairness in our relationships with suppliers, subcontractors, professional associates and customers.

Notable Recent Changes
- Creation of a Manager of Engineering Design and Planning role to improve the control of and visibility to the Port Authority’s capital projects portfolio
- Addition of the Technical and Business Analytics department to address complex challenges and increase focus on service levels.
- Development of asset management strategy continues.

Significant Activities
- Development of decision support tools to promote continuous improvement and enhance the project economic analysis process
- Review and evaluation of PHA owned assets
- Steering committee created to engage stakeholders
- Incorporation of Project Management structure for construction activities
- Ranking contractors / Vendor scorecards

Infrastructure

<table>
<thead>
<tr>
<th>Key Business Process</th>
<th>Potential Risks</th>
<th>Mitigation Risk Techniques</th>
<th>Risk Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of Assets and Facilities</td>
<td>• Assets not optimally managed</td>
<td>• Infrastructure Dept. created</td>
<td>Medium/High</td>
</tr>
<tr>
<td></td>
<td>• Assets not optimally maintained</td>
<td>• Steering committee to develop strategies</td>
<td></td>
</tr>
<tr>
<td>Policies and Regulations</td>
<td>• Non-compliance with local, state, or federal regulations</td>
<td>• Update policies and procedures to align with government regulations</td>
<td>Low/Medium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Vendors contractually obligated to comply with regulations</td>
<td></td>
</tr>
<tr>
<td>Bidding Process</td>
<td>• Proposal process is unfair</td>
<td>• Monitor bid process to ensure an equity</td>
<td>Low/Medium</td>
</tr>
<tr>
<td></td>
<td>• Proposals are not sealed to other bidders/ under bidding to get job</td>
<td>• Rank the vendors/ Scorecard</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Certain vendors are given preferences</td>
<td>• New vendor system application</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Vendors having system problems submitting bids</td>
<td>• Improve the scope process</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Potential for fraudulent documentation</td>
<td>• Meetings are recorded</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Outside influences</td>
<td>• Signed vendor conflict of interest statements</td>
<td></td>
</tr>
<tr>
<td>Project and Construction Management</td>
<td>• Unplanned, material change orders</td>
<td>• Standardization of procedures</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>• No documented process for post review of completed projects</td>
<td>• Ensure project is properly accounted for in the G/L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Ineffective management of processes</td>
<td>• Contractor compliance audits</td>
<td></td>
</tr>
<tr>
<td>Ship Channel</td>
<td>• Depth not maintained to optimum level</td>
<td>• Coordination with USACE</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>• Congestion due to increased vessel traffic/larger vessels</td>
<td>• Adherence to maintenance dredging program</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Constrained access to funds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental</td>
<td>• Risk to people and property</td>
<td>• Compliance with ISO14001 standards</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>• Hazardous conditions due to environmental incidents</td>
<td>• Routine monitoring of tenants</td>
<td></td>
</tr>
</tbody>
</table>
Information Technology

Mission and Objectives
- To provide solutions to support PHA’s business strategy through the implementation and management of its technological resources.

Notable Recent Changes
Significant upgrades to our information technology assets have been made. Technology strategies are reviewed to ensure reliability and security of systems and data. Policies and procedures are in the development stage to ensure accountability and transparency.

Significant Activities
- Cyber security enhancements including:
  - Implementation of services to support disaster recovery and business continuity
  - Enhanced services to support communications capabilities (e.g., SIP, MS Office 365)
  - Approved Cyber Security policy
  - Adoption of 19 key National Institute of Standards and Technology (“NIST”) standards
- Continued enhancements to software and systems
- Developing policies and procedures (e.g., user access and password expiry standards)
- Monitoring of developing cyber security regulations

Information Technology Risk Profile

<table>
<thead>
<tr>
<th>Key Business Process</th>
<th>Potential Risks</th>
<th>Mitigation Risk Techniques</th>
<th>Risk Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Systems</td>
<td>Unauthorized data access</td>
<td>Intrusion detection software</td>
<td>Medium/High</td>
</tr>
<tr>
<td></td>
<td>Generic IDs &amp; passwords embedded in key systems</td>
<td>Ongoing monitoring of intrusion attempts</td>
<td></td>
</tr>
<tr>
<td>JDE and Subsystems</td>
<td>Unauthorized data access</td>
<td>End-User training</td>
<td>Low/Medium</td>
</tr>
<tr>
<td></td>
<td>Information and data security</td>
<td>Penetration testing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Outdated system</td>
<td>Regular system maintenance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maintenance</td>
<td>User Access Review</td>
<td></td>
</tr>
<tr>
<td>Operations Systems</td>
<td>Multiple systems to record operating activities and data</td>
<td>Upgrades include migration to single platform</td>
<td>Medium</td>
</tr>
<tr>
<td>(Navis, Express, N4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventory Management</td>
<td>Employee theft or loss of inventory</td>
<td>Cycle counts</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Inability to track inventory</td>
<td>Annual physicals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overspending on unneeded software licenses, etc.</td>
<td>New policies and procedures for receiving and tracking inventory</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consistent monitoring</td>
<td></td>
</tr>
<tr>
<td>Cyber Security</td>
<td>Operational shutdown</td>
<td>Services enhancements</td>
<td>Medium/High</td>
</tr>
<tr>
<td></td>
<td>Compromised sensitive data</td>
<td>Regular penetration testing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Damage to reputation</td>
<td>New regulations requiring Homeland Security monitoring</td>
<td></td>
</tr>
<tr>
<td>Staffing Levels</td>
<td>Insufficient headcount to support operations</td>
<td>Increase to staffing or equivalent FTEs</td>
<td>Medium/High</td>
</tr>
<tr>
<td></td>
<td>Insufficient skills to support operations</td>
<td>Training &amp; development</td>
<td></td>
</tr>
<tr>
<td>Business Continuity</td>
<td>Natural disaster or other catastrophic event</td>
<td>Revision/update of business continuity plan</td>
<td>Medium/High</td>
</tr>
</tbody>
</table>
Procurement

Mission and Objectives
- To procure goods and services to meet the needs of the Port Authority while driving best value and growth through diversified strategic sourcing.

Notable Recent Changes
Procurement policies and procedures are being monitored to ensure accountability and transparency, as well as compliance with changing regulations.

Significant Activities
- Monitoring of changing regulations
- Continuation of policies and procedures development

Procurement Risk Profile

<table>
<thead>
<tr>
<th>Key Business Process</th>
<th>Potential Risks</th>
<th>Mitigation Risk Techniques</th>
<th>Risk Rating</th>
</tr>
</thead>
</table>
| Regulations          | ▪ Non-compliance with local, state, or federal regulations  
▪ New regulation (HB 1295) | ▪ Update policies and procedures to align with government regulations  
▪ Vendors contractually obligated to comply with regulations | Medium |
| Policies and procedures | ▪ Inconsistent departmental purchasing processes  
▪ Staffing changes | ▪ Procurement policies and procedures  
▪ Staff training | Low/Medium |
| Information Technology | ▪ Recent vendor information system (BuySpeed) implemented  
▪ Manual contract tracking | ▪ User training on vendor management system  
▪ Implementation refinements  
▪ JDE interface solution | High |
| Purchase orders (formal) | ▪ Open purchase orders  
▪ Payment of unauthorized invoices  
▪ Fictitious vendors  
▪ Not obtaining proper approval | ▪ Port Commission approval over 50k invoice orders  
▪ Monitoring of open purchase orders  
▪ Strict adherence to approval policy | Medium |
| Purchase orders (informal) | ▪ Open Purchase Orders  
▪ Payment of unauthorized invoices  
▪ Fictitious vendors  
▪ Not obtaining proper approval (avoidance of bidding requirements) | ▪ Monitoring of open purchase orders  
▪ Strict adherence to approval policy | Medium |
| Asset Disposition | ▪ Outdated procedures for surplus asset inventory | ▪ Periodic review of process and reconciliation of the sub-ledgers  
▪ Training | Low/Medium |
Operations

Mission and Objectives
- To grow our port through safe and efficient operations;
- To serve as the leading cargo facility and the premier marine port driven by safe, efficient, and innovative operations;
- To manage resources responsibly, efficiently, and with accountability;
- To operate and maintain our facilities, buildings, grounds, and utilities in a clean, safe, and responsible manner; and
- To evaluate and continually improve the actions, methods and processes of our organization.

Notable Recent Changes
Expanded container yard facilities for laydown and refrigerated capabilities. Increased volume of vessels and containers due to changing market conditions, including larger vessel sizes.

Significant Activities
- Improved efficiencies in cargo handling processes
- Refinement/development of policies and procedures

Operations Risk Profile

<table>
<thead>
<tr>
<th>Key Business Process</th>
<th>Potential Risks</th>
<th>Mitigation Risk Techniques</th>
<th>Risk Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interruption to operational activities</td>
<td>• Business interruption due to unplanned events</td>
<td>• Established procedures&lt;br&gt;• Staff training</td>
<td>Medium</td>
</tr>
<tr>
<td>Inventory/ Supplies</td>
<td>• Lack of documented procedures for inventory management (overstock, obsolescence, etc.)&lt;br&gt;• Lax monitoring, tracking system&lt;br&gt;• Misuse or theft of assets</td>
<td>• Updating of written procedures&lt;br&gt;• Periodic cycle count of certain Inventory</td>
<td>Medium</td>
</tr>
<tr>
<td>Equipment &amp; Facilities</td>
<td>• Insufficient resources to monitor equipment maintenance</td>
<td>• Periodic reviews&lt;br&gt;• In-house safety training for staff&lt;br&gt;• Third-party maintenance services</td>
<td>Medium</td>
</tr>
<tr>
<td>Fleet Management</td>
<td>• Lack of adherence to fleet management procedures&lt;br&gt;• Higher costs due to uncoordinated processes&lt;br&gt;• Inefficiencies in operational activities</td>
<td>• Recently drafted procedures for fleet management&lt;br&gt;• Standardization of processes&lt;br&gt;• Sr. Director of Maintenance leads fleet management working group</td>
<td>Low/Medium</td>
</tr>
<tr>
<td>Asset Disposition</td>
<td>• Redeployment of cranes&lt;br&gt;• Vehicle and other moveable fixed assets tracking, replacement, etc.&lt;br&gt;• Outdated procedures for surplus asset inventory</td>
<td>• Alternative utilization of assets&lt;br&gt;• Periodic review of process and reconciliation of the sub-ledgers&lt;br&gt;• Training</td>
<td>Low/Medium</td>
</tr>
<tr>
<td>Miscellaneous fees (TWIC, etc.)</td>
<td>• Miss-allocation of funds &amp; revenue sharing&lt;br&gt;• Theft of funds&lt;br&gt;• Unauthorized use of utilities (fresh water)</td>
<td>• Monthly/weekly reconciliation of reports and bank deposits&lt;br&gt;• Implementation of credit card use capabilities</td>
<td>Medium</td>
</tr>
</tbody>
</table>
Port Security and Emergency Operations (PSEO)

Mission and Objectives
- To safely protect and secure people and commerce;
- To manage resources responsibly, efficiently, and with accountability;

Significant Activities
- Frequent external audit / review of compliance with regulations (e.g., USCG spot checks)
- Routine training and awareness initiatives
- Active participation with local/regional mutual aid cooperatives
- Recertification of ISO 28000 program
- Maintenance of Continuity of Operations

PSEO Risk Profile

<table>
<thead>
<tr>
<th>Key Business Process</th>
<th>Potential Risks</th>
<th>Mitigation Risk Techniques</th>
<th>Risk Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police Protection</td>
<td>• Injury or loss of during a police response</td>
<td>• TX Commission on Law Enforcement certifications maintained</td>
<td>Medium/High</td>
</tr>
<tr>
<td>Fire Protection</td>
<td>• Injury or loss of life due to fire emergencies</td>
<td>• Hazard risks assessed annually</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>• Property damage due to fire emergencies</td>
<td>• TX Commission on Fire Protection certifications maintained</td>
<td>Medium</td>
</tr>
<tr>
<td>Security</td>
<td>• Risk to people and property</td>
<td>• Routine security audits performed internally and externally</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>• Injury or loss of life due to security breaches</td>
<td>• Staff awareness training</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>• Unauthorized access due to security breaches</td>
<td>• Adherence to ISO 28000 Security Management System</td>
<td>Medium</td>
</tr>
<tr>
<td>Emergency Response</td>
<td>• No continuity of operations plan</td>
<td>• Adherence to National Incident Management System (NIMS)</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>• Ineffective response to emergency events</td>
<td>• NIMS training</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Maintenance of Continuity of Operations Plan</td>
<td>Medium</td>
</tr>
</tbody>
</table>
Legal

Mission and Objectives
- To ensure compliance with PHA policies, statutes, and other regulations.
- To ensure documents and records are maintained in accordance with PHA policies and other regulations.

Notable Recent Changes
Preparation for the 86th Texas legislative session to be held in 2019 may result in several regulatory changes affecting the Port Authority.

Significant Activities
- Vendor contract dispute, arbitration, litigation, settlement activities
- Lease renewals, permits, licenses
- Construction contracts
- Employee dispute arbitration, litigation, settlement activities
- Legislative changes

Legal Risk Profile

<table>
<thead>
<tr>
<th>Key Business Process</th>
<th>Potential Risks</th>
<th>Mitigation Risk Techniques</th>
<th>Risk Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulations and Policies</td>
<td>• Outdated or lack of documented processes&lt;br&gt;• Non-compliance with tariffs, local, state, or federal regulations&lt;br&gt;• Over-reliance on the customer’s self-reporting process</td>
<td>• New policies and procedures&lt;br&gt;• Review of tariffs and contracts for compliance&lt;br&gt;• Perform periodic audits&lt;br&gt;• Incorporation of modifications to contract terms</td>
<td>Medium</td>
</tr>
<tr>
<td>(Operations)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulations and Policies</td>
<td>• Conflict between Employee Handbook and policies&lt;br&gt;• Outdated policies and procedures&lt;br&gt;• Informal/unwritten policies and procedures&lt;br&gt;• Unknown new regulations</td>
<td>• Development of compliance inventory&lt;br&gt;• Revised Employee Handbook with linkage to relevant policies issued&lt;br&gt;• Conflicts approved by Executive Director or Port Commission&lt;br&gt;• External monitoring agents engaged</td>
<td>Low/Medium</td>
</tr>
<tr>
<td>(People)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rates</td>
<td>• Inaccurate fees, rates, and tariffs&lt;br&gt;• Outdated pipelines fees</td>
<td>• Agree all fees, rates, and tariffs to active contracts&lt;br&gt;• Perform periodic audits</td>
<td>Low/Medium</td>
</tr>
<tr>
<td>Code of Ethics</td>
<td>• Conflicts of interest&lt;br&gt;• Threats to integrity of processes</td>
<td>• Ethics training&lt;br&gt;• Annual re-acknowledgement of Ethics Policy</td>
<td>Low/Medium</td>
</tr>
</tbody>
</table>

Overall Summary
Results of the overall risk assessment which incorporate the detailed self-assessments from business unit managers revealed an entity-wide risk rating of Low/Medium. This Low/Medium risk rating indicates that most business processes are supported by effective policies, procedures and controls. Certain areas such as Security and Environmental adhere to ISO standards and engage formalized internal and external audit activities to mitigate risks. There exists a combination of areas where controls and procedures are working as designed, balanced with areas which could benefit from process reviews and potential improvement recommendations.