

# Virginia ABC

Richmond, Virginia

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## The Client

The Virginia Department of Alcoholic Beverage Control (VA ABC) is responsible for controlling the sale and distribution of alcoholic beverages within the Commonwealth of Virginia. As one of 18 control states across the United States, Virginia shares a common goal of safely and responsibly administering the sale and distribution of alcoholic beverages. This is achieved through a three-tier system involving distributors, wholesalers, and retailers. VA ABC serves as the commonwealth's wholesaler and retailer of distilled spirits. Goods are purchased from domestic and international vendors and shipped from all over the world to a 300,000 square-foot central warehouse facility in Richmond. The Richmond distribution center (DC) ships approximately 2,500 items to more than 300 retail outlets throughout the commonwealth. Through the sale of alcoholic beverages, VA ABC is a major source of revenue for Virginia. In fiscal year 2004, VA ABC had sales of more than \$490 million and shipped more than 3.2 million cases of distilled spirits.

## The Challenge

Due to population growth in the Commonwealth of Virginia and the number of stock keeping units (SKUs) offered, VA ABC needed to increase the storage capacity, storage selectivity, labor productivity, and throughput of the Richmond DC to meet current and projected sales forecasts. The projected growth required VA ABC to evaluate current DC operations and develop affordable solutions to meet their needs.

## The Solution

Tompkins Associates was retained by VA ABC to develop a Strategic Master Plan for the Richmond DC and to manage the implementation. During the Strategic Master Plan phase of the project, Tompkins:

- Developed a database documenting all historical and forecasted distribution requirements for all functions of the DC for the 10-year planning horizon.
- Assessed current operations and system functionalities in the DC. Once completed, the assessment was documented and then analyzed to identify the capability of existing operations, systems, and facilities to meet the future requirements.
- Developed wide-ranging operational, facility layout, facility modification, material handling, storage, and control alternatives which would enhance the DC's ability to meet requirements.
- Evaluated all alternatives on prioritized qualitative criteria and on a comprehensive economic analysis to determine the most desirable systems for implementation.
- Detailed the recommended course of action for the final solutions to all areas, operations, and systems including the implementation schedules, capital

## C A S E S T U D Y

expenditure timing, and a sensitivity analysis on the impact of changes in the database forecasts and/or assumptions.

- Assisted VA ABC in presenting the results and recommendations to gain project approval.

With the Strategic Master Plan as the guide, Tompkins developed the equipment specifications and Request for Quotation (RFQ) to select a system integrator to implement the approved solution. Tompkins also provided technical assistance to VA ABC in reviewing vendor responses to the RFQ and selecting a system integrator. In addition, Tompkins successfully developed the facility upgrade specifications and assisted VA ABC in selecting an architectural and engineering firm to perform the detailed design for necessary facility upgrades, lighting, and fire suppression.

Once a system integrator was selected, Tompkins provided VA ABC with technical project management and project oversight assistance throughout the implementation and start-up phases. During the implementation, Tompkins provided the following services:

- Developed an overall project plan to guide the implementation.
- Worked with the system integrator to develop the detail design that would be used as a roadmap for equipment acquisition and installation.
- Worked with VA ABC and the system integrator to develop the requirements for a wave management system and interfaces with the existing WMS.
- Provided project oversight for equipment installation and wave management implementation.
- Developed a product slotting plan, transition plan, and testing plan.
- Developed a training plan and conducted associate training.
- Conducted unit, subsystem, system, and integrated testing to ensure the total system met VA ABC's performance requirements.
- Oversaw start-up and transition to live operations.

### **The Results**

The newly implemented DC retrofit resulted in significant benefits for VA ABC:

- Provided throughput and storage capacity needed to successfully support growth projections.
- Optimized staffing by eliminating the need for a second shift.
- Improved order accuracy for store deliveries.
- Improved working conditions and ergonomics.
- Developed operational efficiency standards.