

Port Security Seminar & Expo

Radiation Portal Monitor Program Update

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JUST THE FACTS

WORKING IN
MORE THAN
100
COUNTRIES



Publicly traded
on NASDAQ as



\$2.8 billion
ANNUAL REVENUE

FOUNDED IN
1966



WORKED
ON **60,000**
PROJECTS IN FY2017



400
OFFICES
WORLDWIDE



17,000 ASSOCIATES



WHAT WE DO



WATER

Coastal and Marine Resources Management
 Drinking Water
 Groundwater
 Stormwater
 Wastewater Treatment
 Water Resources



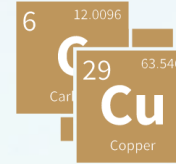
ENVIRONMENT

Air Quality
 Environmental Compliance
 Environmental Management
 Remediation
 Waste Management



INFRASTRUCTURE

Airports and Aviation
 High Performance Buildings
 Communications
 Dams, Reservoirs, and Levees
 Ports, Harbors, and Waterfront
 Transportation



RESOURCE MANAGEMENT

Industrial
 Mining and Minerals
 Oil and Gas



ENERGY

Conventional Generation
 Energy Efficiency
 Nuclear
 Offshore Energy
 Renewable Energy
 Transmission and Distribution
 Utilities and Market Analytics

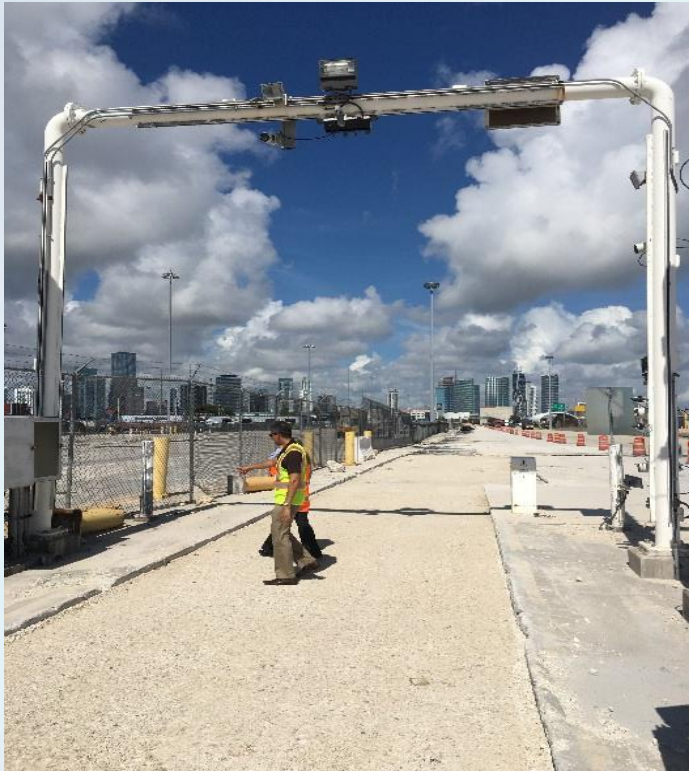


INTERNATIONAL DEVELOPMENT

Agriculture and Economic Growth
 Architecture and Engineering
 Democracy and Governance
 Environmental and Natural Resources
 International Energy Services
 Land Tenure and Property Rights
 Rule of Law
 Security and Stabilization
 Water Resources and Infrastructure

PORTS AND HARBOR SERVICES PRACTICE

Tetra Tech provides the total spectrum of Port Development and Security Services:



- Security Services
- Coastal Engineering
- Infrastructure Planning & Design
- Waterfront Development
- Environmental Assessment
- Remediation & Air Quality
- Full Port & Harbor Construction
- Oceanographic & Bathymetric Mapping

TETRA TECH NUCLEAR NONPROLIFERATION EXPERIENCE

- Supporting the mission since 1998
 - Second Line of Defense (SLD)
 - National Nuclear Security Administration (NNSA)



- Program growth from initial Border Crossing design through to Mobile Platforms and Personal Detection Systems
 - Seaports, Airports, Border Crossings, Training Centers, Central Alarm Stations
 - 1,600+ RPMs installed,
 - 50+ Countries serviced
 - 239 Sites
 - 100+ Mobile Detection Systems (vans)



- Comprehensive Scope of Work:
 - Design-Build of RPM Systems
 - Design and Engineering,
 - Communications,
 - Construction Management,
 - Technical Services,
 - Testing, Calibration and Turnover.
- Domestic and International Seaport RPM Support



UNDERSTANDING PORTS- RADIATION DETECTION SYSTEMS

- Minimize impacts to commerce while efficiently detecting and deterring illicit Nuclear and Radiological materials.
- Port radiation security systems must be considered early in the port expansion process to make sure that they are integrated into effective port operations.
- Applies to:
 - Design
 - Construction
 - Operations
 - Maintenance



BACKGROUND- DOMESTIC RADIATION DETECTION PROGRAM

- SAFE Port Act of 2006
 - Requirement for radiation screening for containers arriving to the US seaports.
 - Radiation Detection Equipment is deployed at Ports of Entry.
- Department of Homeland Security (DHS) program
 - US Customs and Border Protection (CBP)
 - Countering Weapons of Mass Destruction Office (CWMD)
 - Transitioned from Domestic Nuclear Detection Office (DNDO)
- Deployments:
 - Initial Deployment,
 - Technology Upgrades,
 - RPM Relocation,
 - Remote Operations,
 - RPM Replacement Program.
- Initially Government-Funded



Homeland
Security

CURRENT AND FUTURE RPM PROGRAM

- New/future DHS ‘Cost Sharing’ Program approach
 - Port expansion and configuration changes.
 - CBP Remote Operations (RO).
 - CWMD RPM Technology Enhancements.
 - CWMD RPM Replacement Program.

STAKEHOLDER INVOLVEMENT

- Port Authority/Terminal Operator
 - Provide space and infrastructure.
 - Responsible for Security, Engineering, Operations.
 - Subcontract Design/system Integrator (Buyer's representative).
- Countering Weapons of Mass Destruction
 - Radiation Portal Monitoring Program Management
 - RDE acquisition and deployment
 - Support contractors (PNNL)
- Customs and Border Protection
 - Approval authority and responsible for equipment operation
 - Various Departments (OFO, ILD, BSDP, etc.)
- Local and State Regulators- Permitting, etc.



SUCCESSFUL INTEGRATION MODEL

- Comprehensive design-build approach.
- Establish clear nuclear detection and operational objectives.
- Defining current and future requirements, stakeholders, process.
- Engineering considerations
 - Infrastructure requirements
 - Future planning- Port systems integration
- System Training
- Accelerated project timeline (from planning through completion)
- Oversight

Gaining Consensus

- ❖ Executive Buy-in (Port Authority and CBP management)
- ❖ Understanding the needs and the requirements of each of the stakeholders.
- ❖ Determine how to best address the needs.
- ❖ Make the stakeholders part of the design process.
- ❖ Gain concurrence at each step of the process.

BENEFITS OF 'COST SHARING' PROCESS

- Ports contracted directly with Tetra Tech for design-build of RPM relocation, remote operations conversion & terminal expansions.
- Tetra Tech worked on behalf of Ports with CWMD/CBP for project initiation, negotiation and process/project management.
- Port controls the design process, completes approved designs through an iterative design and review process with CBP/CWMD.
- Reduced project costs and improved operational efficiencies for Ports.
- Developed multiple templates for Remote Operations (RO) for future domestic ports.
- CWMD may provide RPMs and ancillary equipment to Port.
- CBP / CWMD Testing, Inspection and Acceptance.

PORT TAMPA BAY PROJECT OVERVIEW

- RPM 'Cost Sharing' Project
 - Proactively integrated strategic goals/plans for future expansion.
- Project activities:
 - Relocate RPMs to maximize screening efficiency and minimize impact on Port operations & footprint
 - RPM design for Refrigerated Container Terminal expansion
 - Relocate the Secondary Inspection station (CPB) to a practical and efficient location
- Optimization
 - Types of equipment and location of RPMs to coincide with the Port layout
 - Complementary security enhancements



PORT TAMPA BAY PERSPECTIVE

- Challenges:
 - Securing Management support,
 - CBP requests/requirements.
- Benefits to PTB:
 - Operational Efficiencies,
 - CBP Footprint Optimization,
 - Improved security posture,
 - Increased container volumes,
 - Relocation of the CPB monitoring allowing Main Gate expansion,
 - Cost Benefits.



Discussion/Questions

