

Tampa Ethanol Terminal Project



TRANSFLO Terminal Services HS&E Group
District t VIII LEPC Meeting
February 27, 2013



TRANSFLO®

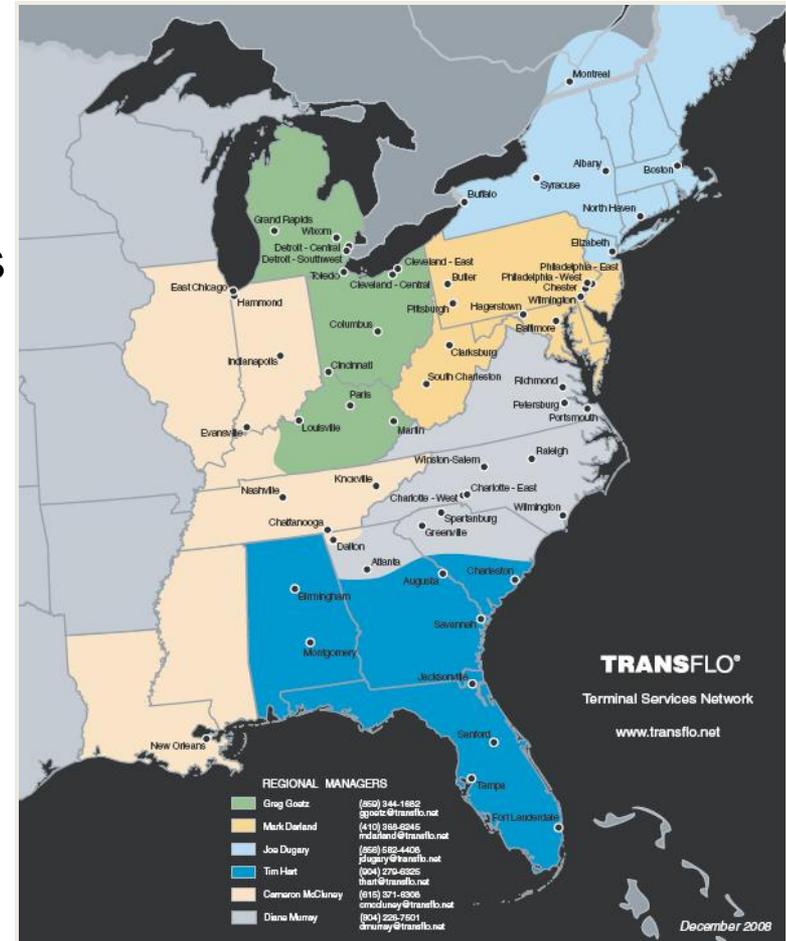
OUR EXPERTISE, YOUR ADVANTAGE

This Presentation

- Who is TRANSFLO?
- Project overview
- Operations site plan
- Layers of protection
 - Prevention
 - Response
 - Mitigation

Leading Bulk Transload Network in The Eastern US

- Subsidiary of CSX Corporation
- 31 years in the bulk transloading and materials management business
- 57 terminals across the CSXT network
- ISO 9001:2000 Certified
- Heating, blending, sampling
- Distribution analysis and sales



OUR EXPERTISE, YOUR ADVANTAGE



TRANSFLO Business Model

- Typically only shippers or receivers who had a rail siding could use the economy of shipping by rail.
- TRANSFLO allows shippers and receivers to order or ship their products using rail service for transportation combined with local truck delivery radius.
- This model also supports CSX rail business.
- Beyond the obvious benefit to the shippers, receivers and the railroad, this use of rail removes long haul trucks from the roadways and offers a safer and more environmentally responsible transportation cycle.



Terminal Operations

- Terminals are owned/leased by TRANSFLO Terminal Services, Inc.
- TRANSFLO maintains the customer product inventory and transfer records and other related electronic services.
- The terminal is staffed and operated by contract operators with a terminal managers, loaders and office staff.
- The terminal operates to standards and following documented procedures established by TRANSFLO.
- TRANSFLO has field staff to provide operational oversight to the contract operators.
- This terminal will be operated by Arrow Material Services Inc.

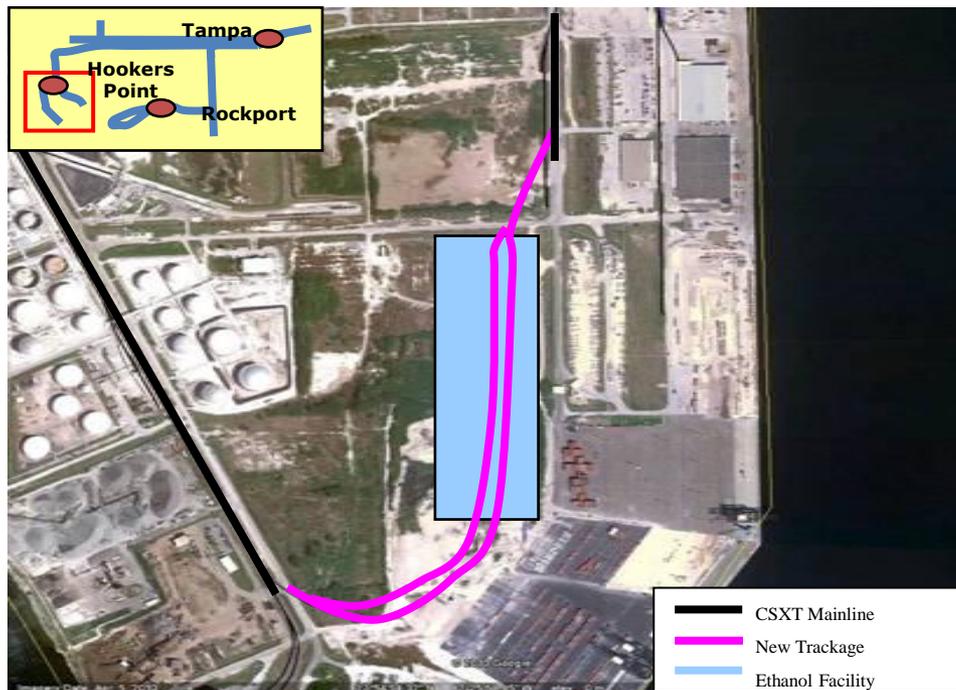
Tampa Ethanol Terminal Project – Ethanol is a familiar commodity

- Ethanol is not a new product for TRANSFLO or the Port
 - Kinder Morgan presently handles ethanol via multiple transportation modes and in fixed storage.
 - TRANSFLO has handled over 1.4 billion gallons (47,289 tank cars) of ethanol system-wide in the past 5 years.
 - TRANSFLO has handled fuel grade ethanol at the 34th Street terminal in Tampa for the past 5 years and has safely handled over 130 million gallons (4340 tank cars) through that terminal on a rail to truck transfer basis.
- **So what's new about this project?**
 - The method and volumes to be handled via the unit train fixed manifold pumping system.



Tampa Ethanol Terminal Project Overview

Joint project with CSX Transportation, TRANSFLO, Port of Tampa and Kinder Morgan Terminals.



- Basic plan is to handle unit trains (up to 96 tank cars) of fuel grade ethanol from tank car into pipeline for delivery to bulk tank farm on the Port of Tampa property.
- Entire train to be unloaded in 24 hours using continuous unloading until empty.
- 2.5 Million gallons PER TRAIN!
- No fixed storage of any product on site after unloading.

Operations – Terminal Design For Safety

- Site was designed to ensure environmental protection from a spill.
- Entire transfer area is paved with rail tracks constructed on top of containment.
- Slope of entire 8 acre site is to allow liquid to run from high side (East) to the low side (West and away from the operations area).
- Drainage plan for the site will also act as a spill control system to move any spilled product away from the tank cars into above ground drainage swales with discharge valves to control spilled material from leaving the site.



Operations Site Plan

- Four rail tracks served from the South with 24 car capacity on each track.
- Entire terminal will be fenced with 8' foot chain link fence with man gates on the East side of the terminal.
- Entire terminal transfer area is paved with tracks constructed above the pavement.
- Train has to be handled (inspected, unloaded and re-secured) in under 24 hours.
- Terminal must coordinate with Kinder Morgan for unloading operation.



Operations – Basic Manifold System

- Two branch product manifolds with transfer hoses extend between each pair of terminal tracks forming a large H.
- The manifold lines are connected together and flow to a central supply manifold.
- The manifold feeds the two 1500 gpm transfer pumps.
- The pumps discharge to an above ground pipeline along GATX Drive to the Kinder Morgan terminal.
- The terminal manifold will be empty of product at the end of the transfer operation.



Manifold (12 inch steel pipe) located between Tracks T-1 and T-2. Welded rail with M-10 steel ties located on ballast and over asphalt paved surface.

Operations – Basic Manifold System

- Central pump location with three pumps (2 operate at one time).
- Pump pit is open with cover and includes air eliminators and meter systems.
- The manifold gravity feeds the two 1500 gpm transfer pumps.
- A stripper pump pulls down the manifold after transfer operation.
- All pump controls are operated outside of the pit and can be monitored from the office.



Prevention – Fire Control Features

Key Concept- Limit Size of the Spill- Limit Size of Potential Fire!

- Each tank car connection has shut off valve PLUS Tank Car Valve
- Dry disconnect hoses and fittings on each tank car. Transfer manifold and railcar connection hoses are inspected before each transfer to identify system problems.
- Transfer system design and operated to minimize vapor emissions.
- Ignition source controls
 - Explosion proof wiring in transfer area (Class 1, Division I- Explosion proof).
 - Tracks are bonded and grounded. Strict enforcement of ignition sources control in transfer area.
- Emergency shut down stations and a remote stop control system in place to stop pump in the event of an emergency.

Emergency Equipment and Systems

- “Touchless” transfer method minimizes employee exposure potential.
- Safety showers/eye washes move to potential exposure points.
- Vapor controlled to limit inhalation exposures. Field air monitoring confirmed no emissions during off loading at top of tank car.
- Fire water/foam manifold on eastern side to allow FD to apply extinguishing agent from central connection without direct personnel involvement.



Prevention – Spill Control Features

- Circles of containment principle means redundant systems to contain any spill.
- Each circle of containment is designed to keep spill footprint to smallest area with ability to rely on next “circle” with increasing capacity.
- Entire facility is paved to prevent groundwater or soil contamination.
- Terminal has multiple “cells” to limit spread of product on N-S axis- spilled materials is routed away from tank cars to western side of terminal.
- Spill control gates keep product on terminal.
- If spill is uncontrolled gates can be opened to allow product to flow to storm water swales with capacity of over 120,000 gallons (4 entire tank cars.)

Port of Tampa Impact

- Train delivering unit train can be up to 1 mile long.
- This has potential to block main entrance to the Port.
- Communication between CSX, TRANSFLO and the Port Operations Center is critical.
- Crossing can be blocked for up to 15 min.
- Operations schedule was set to minimize impact to the Port by train arrival after 6:00 PM (8-12 PM) and departure between 8-PM-2AM.

Response - Terminal EAP

- Terminal has a documented Emergency Action Plan that has been reviewed and approved by emergency response agencies.
- Terminal personnel have received training on the EAP and conduct drills to ensure ability to take correct actions based upon incident conditions.
- Key principle is “Action” not “Response”- terminal personnel will take defensive action during fires and spill events. They are not trained or equipped for offensive tactical intervention.
- Terminal Manager and supervisors will coordinate with Emergency Response agencies for response activity.

Response- Terminal EAP

- **Key components of the EAP:**
 - Terminal incident notification system to alert all employees to type of emergency with specific response actions.
 - Specific notification expectations and actions for each type of emergency.
 - Terminal EAP incorporates off site impacts into plan with specific actions to take if off site event occurs.
 - EAP contains single point of contact page (Red Tab) for ease of notification.
 - Terminal is staffed if product is on the terminal.

Summary

- Questions?
- For more information contact:
 - Ken King, TRANSFLO Manager of Field Operations and Equipment
904-881-8184 C
 - Anthony Strode, Arrow Material Services, Terminal Manager
724-553-4686 C