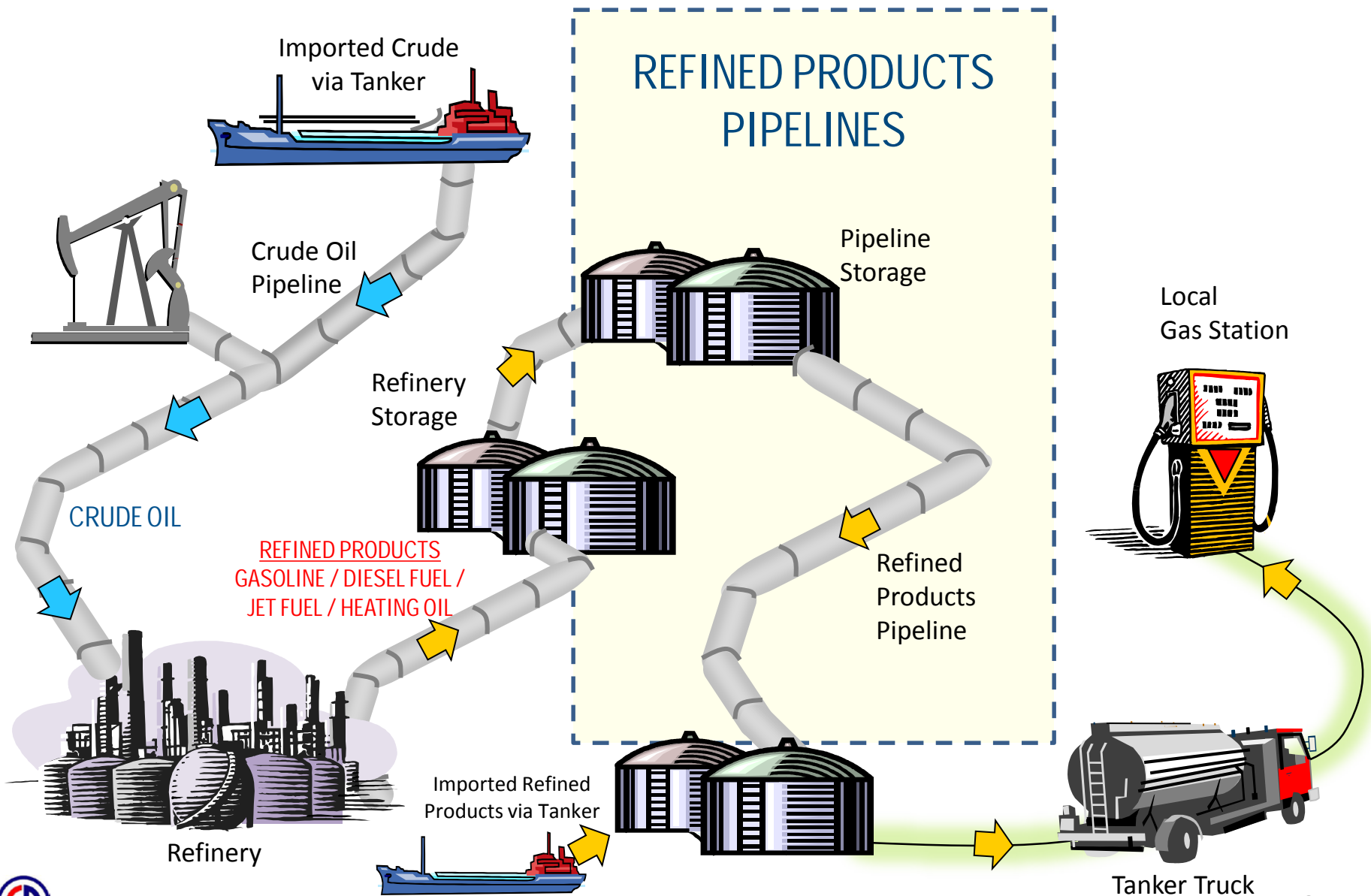


South Carolina Petroleum Pipeline Study Committee
SC Petroleum Council Representative Presentation
November 30, 2016



How Fuel Gets to You

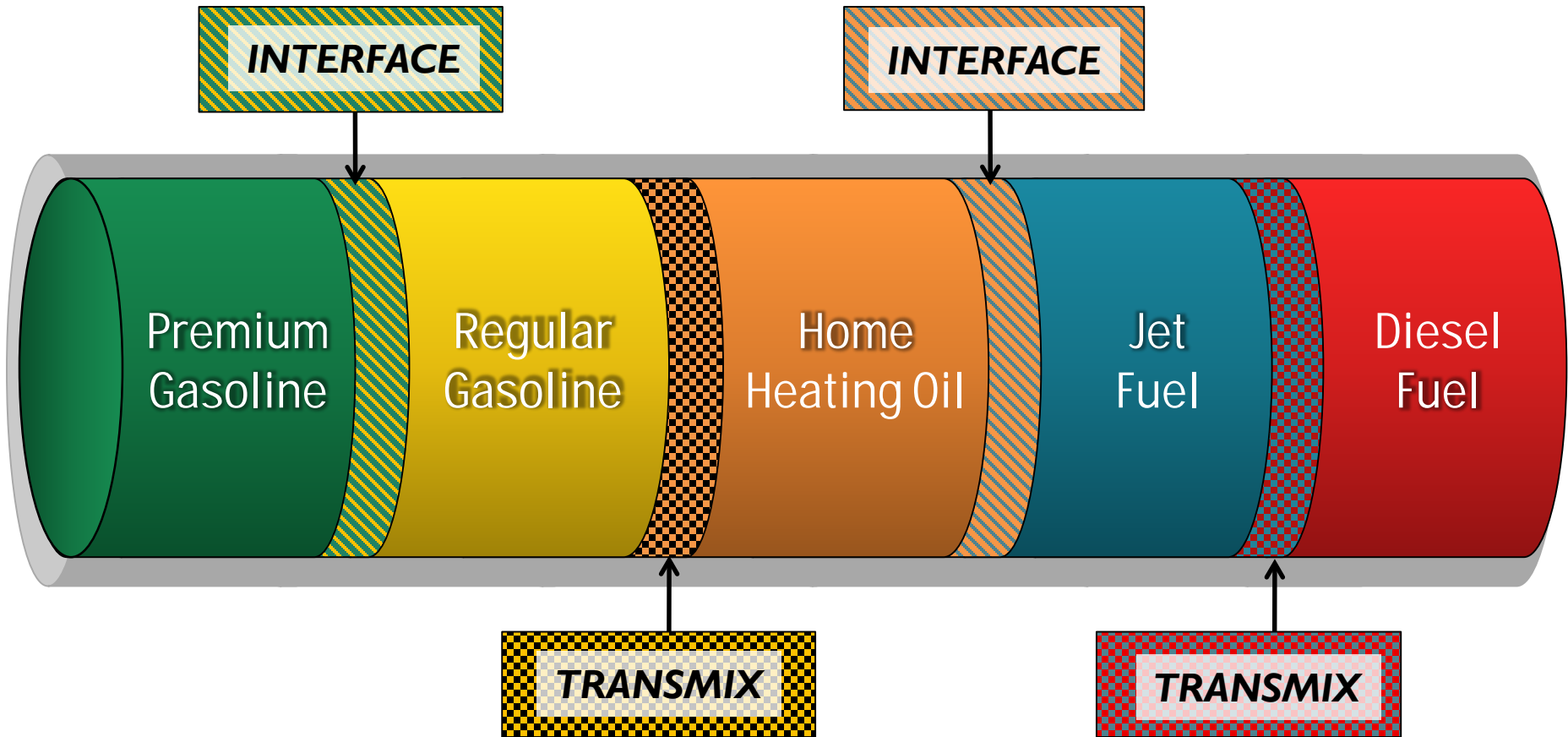


How Colonial Pipeline Works

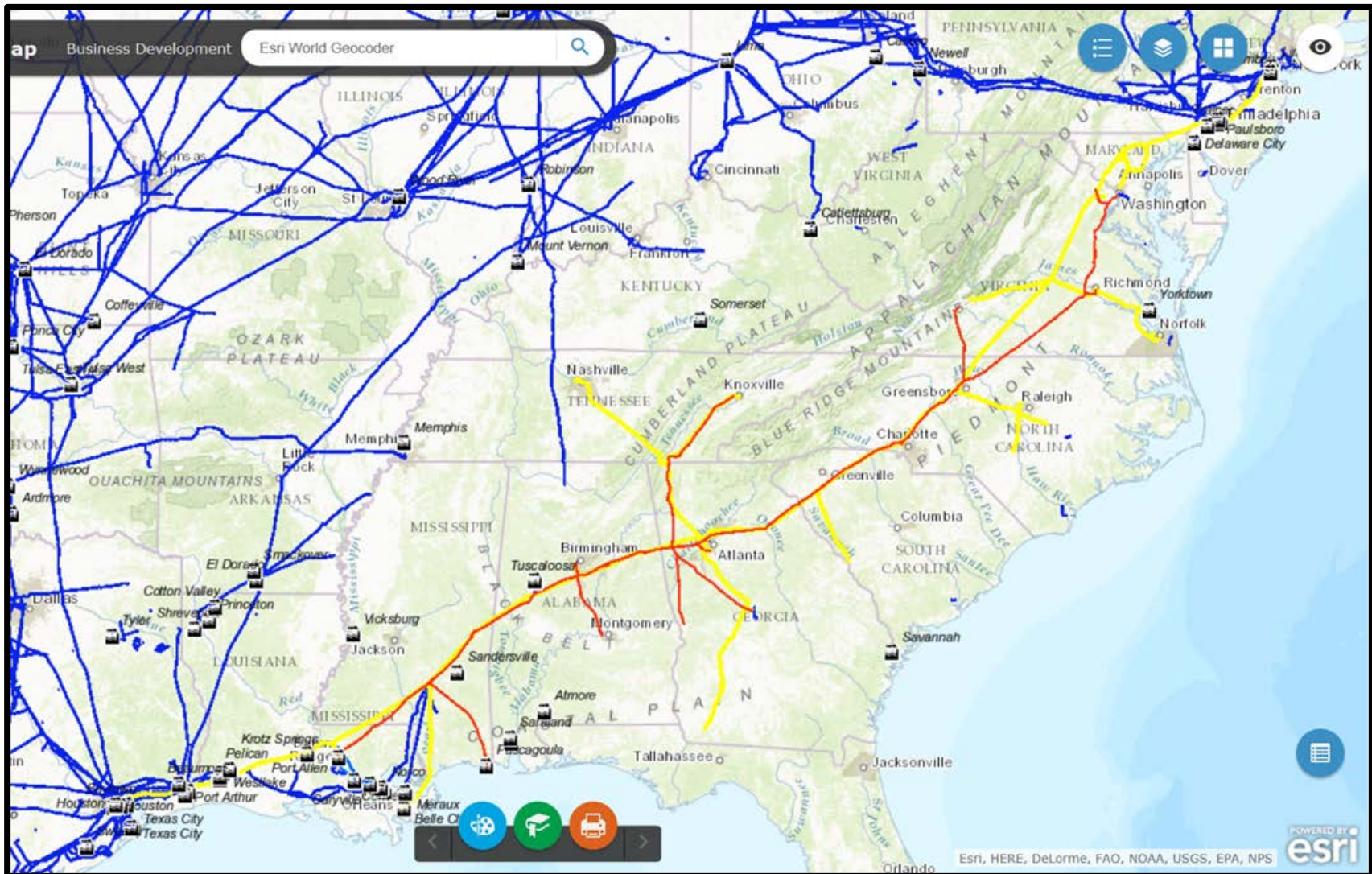
- ❖ **High speed centrifugal pumps move the liquid through the pipe**
- ❖ **Principles of hydraulics keep the batches from blending with each other, except at the interfaces**
- ❖ **Pumps and valves are remotely controlled from computerized central control centers staffed by highly trained operators**
- ❖ **Product moves at approximately 3-8 miles per hour depending upon the size of the pipe, line pressure, and the density and viscosity of the liquid being transported**



How Product Moves

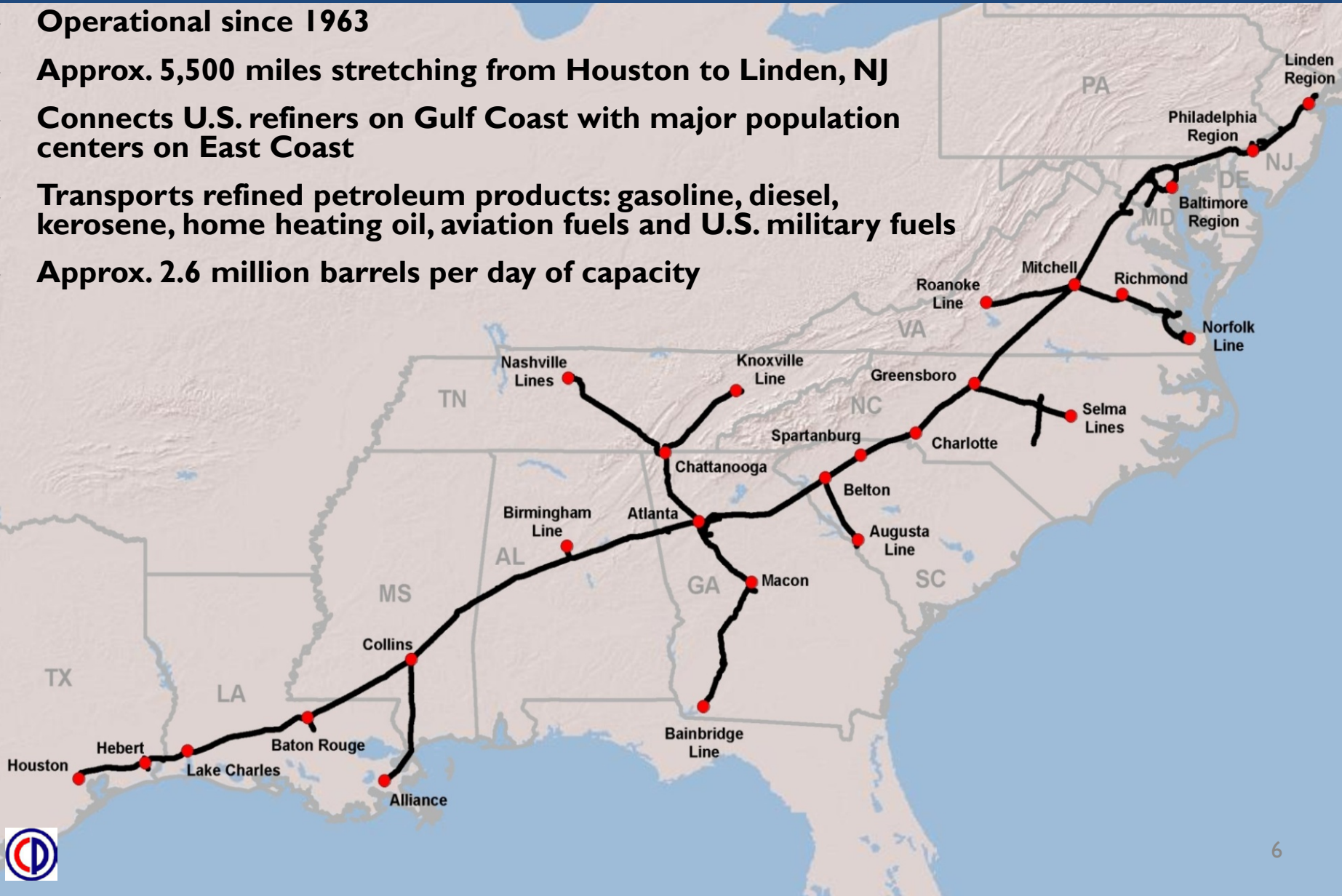


Refined Products: Production & Distribution Landscape



Colonial Pipeline: Highlights

- ❖ Operational since 1963
- ❖ Approx. 5,500 miles stretching from Houston to Linden, NJ
- ❖ Connects U.S. refiners on Gulf Coast with major population centers on East Coast
- ❖ Transports refined petroleum products: gasoline, diesel, kerosene, home heating oil, aviation fuels and U.S. military fuels
- ❖ Approx. 2.6 million barrels per day of capacity



Colonial Pipeline: Overview



- ❖ **Largest refined products pipeline in the United States**

- ❖ Headquartered in Alpharetta, Georgia
- ❖ Approximately **900** employees
- ❖ Supplies approximately **45%** of U.S. East Coast consumption

- ❖ **Transport refined petroleum products**

- ❖ Gasoline
- ❖ Diesel fuel
- ❖ Kerosene
- ❖ Home heating oil
- ❖ Aviation fuels
- ❖ U.S. Military Fuels
- ❖ Bio-diesel and Renewable diesel in blended form

- ❖ **Transporter of products, not owner**

- ❖ Tariff from Houston, TX to Linden, NJ: **\$2.13** / barrel (**5.1 cents** per gallon)
- ❖ Tariff from Houston, TX to North Augusta, SC: **\$1.29** / barrel (**3.1 cents** per gallon)

- ❖ **Regulated by:**

- ❖ Federal Energy Regulatory Commission (FERC) for rates
- ❖ Pipeline Hazardous Materials Safety Administration (PHMSA/DOT) for safety
- ❖ EPA, OSHA and various other federal and state entities



Pipeline Integrity Management Programs



INTERNAL INSPECTION TOOL



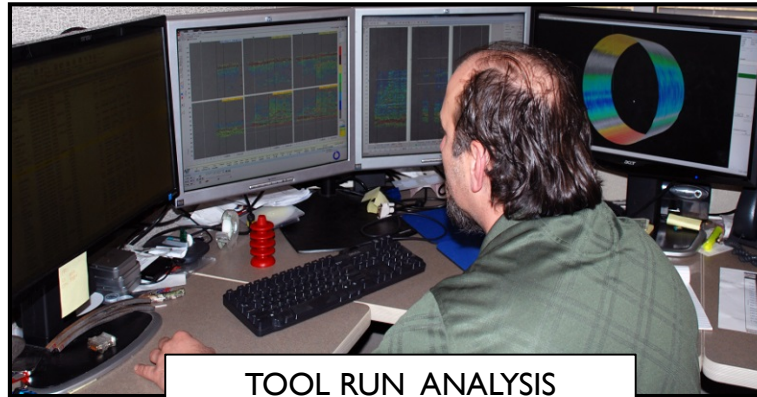
CORROSION PREVENTION



AERIAL PATROL



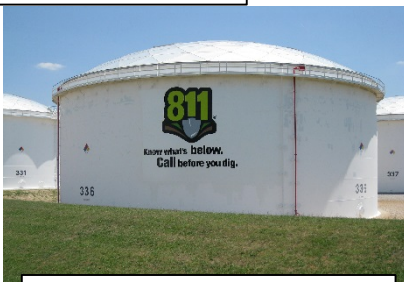
ONE CALL CENTER



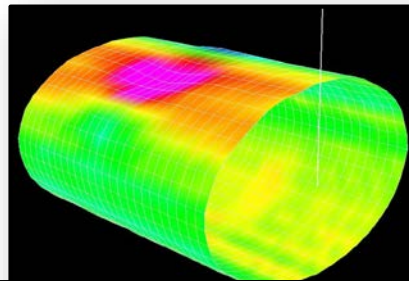
TOOL RUN ANALYSIS



EXCAVATION AND REPAIR



TANK WITH 811 LOGO



TOOL RUN RESULTS/IMAGES



PIPELINE MARKER



Centralized Control Room Management

- ❖ **Rotating shifts, 24 hours/day, 365 days/year**
- ❖ **Active back-up control center in case of emergencies**
- ❖ **Ability / Empowerment to shut down lines if conditions are unsafe**

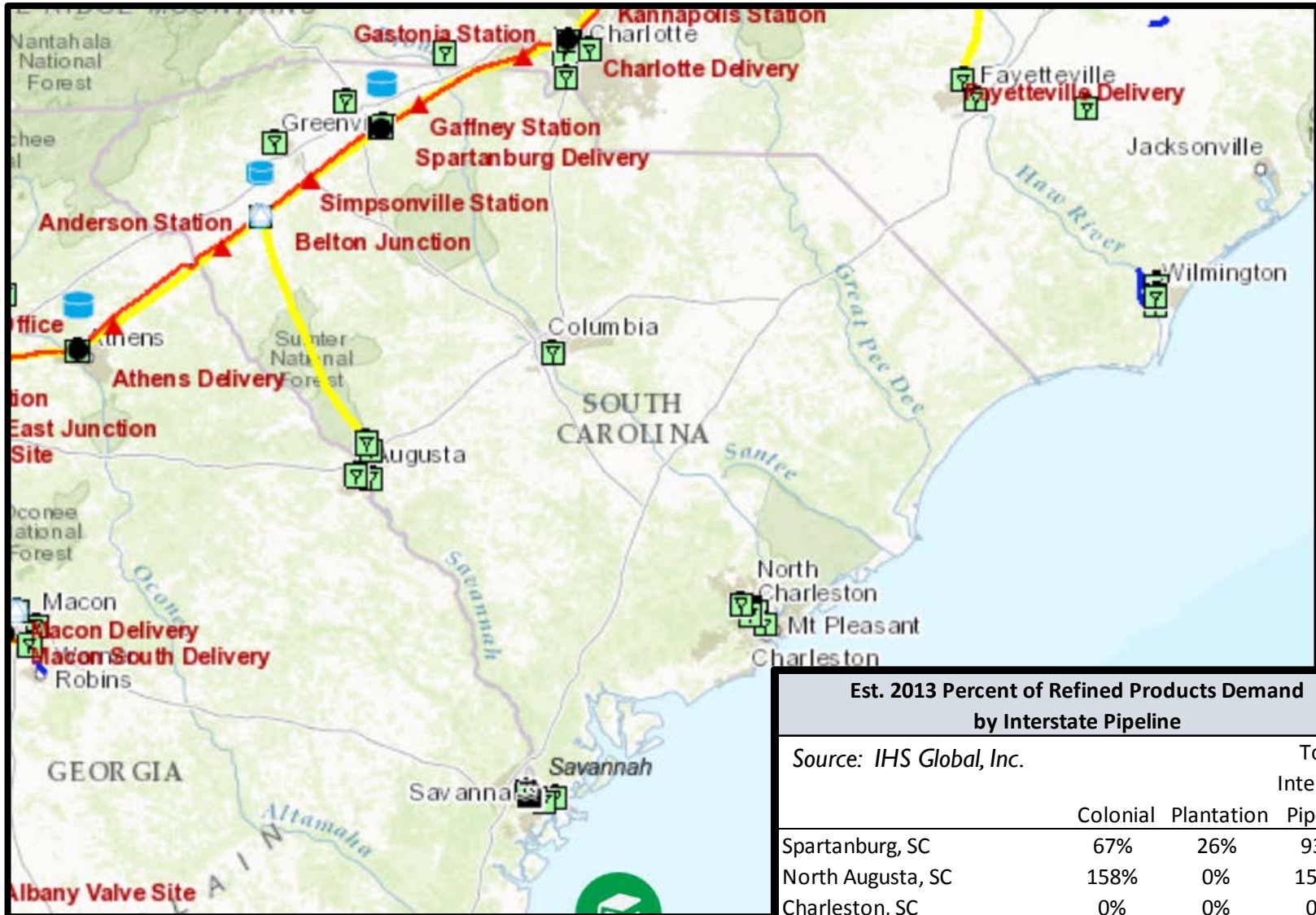


Emergency Response

- ❖ **“Unannounced drill” with federal/state/ local responders; mobilize as if incident was real**
- ❖ **District and local exercises. Periodic exercises with local first responders**
- ❖ **Meet with emergency responders across system once every three years for full discussion of capabilities, expectations**
- ❖ **Everyone at Colonial is expected to help, ready to respond or back fill.**



Focus: South Carolina



Est. 2013 Percent of Refined Products Demand by Interstate Pipeline			
Source: IHS Global, Inc.	Colonial	Plantation	Total Interstate Pipeline
Spartanburg, SC	67%	26%	93%
North Augusta, SC	158%	0%	158%
Charleston, SC	0%	0%	0%
Proxy: 'South Carolina'	62%	10%	72%



Transportation Cost Comparison

(estimates via internal Colonial analysis circa 2013)

Cost per 1,000 mile transported per barrel (per gallon)	
Colonial Pipeline	~\$1.25 (\$0.03)
Tanker/Barge	~\$2.75-\$3.25 (\$0.07-\$0.08)
Rail Car	~\$10.35 (\$0.25)
Truck	~\$16.25 (\$0.39)

❖ **In 2015, Colonial transported over 872 Billion barrel-miles of product**



Colonial in South Carolina: Fast Facts

- ❖ **Tariff from Houston to SC destinations (Belton, N. Augusta, Spartanburg) between \$1.24-\$1.29/barrel, or \$0.03 per gallon**
- ❖ **SC assets operated by Colonial:**
 - ❖ Over 275 miles of pipeline
 - ❖ 3 delivery facilities; 2 storage facilities with >1.3MMbbls capacity
- ❖ **Over 2.3 billion gallons delivered by Colonial to SC in 2015**
- ❖ **26 employees in SC; \$3MM in wages and benefits**
- ❖ **\$5MM in annual income, property and other taxes**



Eminent Domain in SC: Colonial Pipeline

- ❖ **Greater than 1,200 tracts in South Carolina covering all mainlines, stublines, and delivery lines**
- ❖ **30 tracts had the condemnation process started, with 25 out of 30 settling out of court**
 - ❖ **25 of the 30 were from 1962-3 and 1977-8**
- ❖ **5 resolved by Order of the Court**
 - ❖ **4 in 1964; 1 in 1979**
 - ❖ **Counties: Spartanburg, Anderson (3), Edgefield**



Bonding and Insurance

❖ Bonding

- ❖ Usu. associated with relocation projects, linked to local (not state) permitting needs;
- ❖ Typically in the ~\$5MM range, alongside a certificate of insurance
- ❖ Driven by road damage, etc. - not pollution

❖ Insurance

- ❖ Colonial has significant insurance coverage to address 3rd party property damage (i.e. environmental cleanup & remediation)
- ❖ Precedent for outside agency costs to be covered (e.g. EPA/local police & fire/etc.)



Shelby County Incident: September 2016

