

3M Corrosion Protection Products Division

3M CPPD (Corrosion Coatings) + NASPD (Steel Pipe)

A practical “Partnership” in service to your Customers across all Industries Served



We've
Got You
Covered



John M. Breton
3M Corrosion Protection Products Division
512.984.4410 / jmbreton@mmm.com
www.3M.com/Corrosion



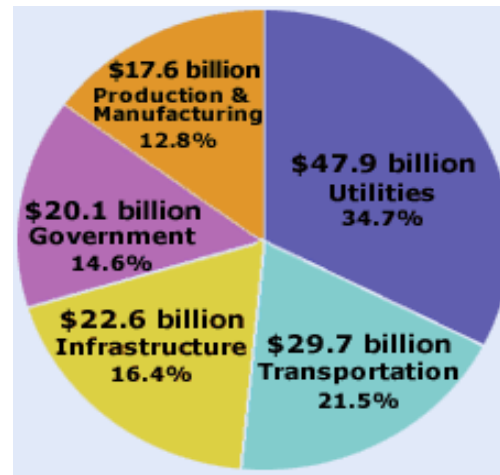
3M™ Scotchkote™ FBE 101 - 1960



U.S. Federal Highway Administration commissioned NACE in 1998 to do a broad infrastructure analysis of the Cost of Corrosion in the USA

- NACE determined that to overall cost, on an annualized basis was approximately \$276Bil/yr. or 3.2% of GDP. Of this number:

- \$138B in direct losses by Industry
- Utilities (\$5B in gas distribution)
- Production & Mfging (\$8B O&G sectors)
- Infrastructure (\$7B O&G Pipeline)



- Note: NACE concluded that 25+/-% of this loss was avoidable through proper selection of materials and implementation of effective cathodic protection systems and well designed preventive maintenance programs*.

Total Direct Cost of Corrosion in Analyzed Sectors: \$137.9Bil/Yr. and extrapolated to U.S. Economy; cost of corrosion is \$275.7B/Yr.

*Paraphrased from recently published statistics from NACE-Houston, Tx



Corrosion Protection Products Division – Corrosion Products Expertise
Driven by 50 years of Research & Development in FBE/Polyolefin Resins

3M is a global business that manufactures, markets and sells epoxy, polyurethane and acrylic coatings for corrosion protection:

Pipeline Coatings

Oil, gas, fuel and water corrosion protection and flow enhancement including “in-situ” rehabilitation of gas and water lines

Industrial Coatings

Chemical and corrosion protection of structural steel, storage vessels, chemical processing equipment, bridges

Engineering Repair/Building Maintenance

Filled epoxy/urethane coatings systems for refurbishment/repair of steel, ceramic, and rubber wear components in industrial equipment.

Corrosion Protection Products Division - Market Segments Served



Oil & Gas – steel pipes & fittings
•Corrosion Control
•Flow Enhancement



Production & Manufacturing – tanks, pipes, structures, equipment, and buildings
•Corrosion control
•Chemical resistance
•Erosion protection
•Coatings for insulation



Water – potable water pipes
•Pipe rehabilitation
•Quality improvement linings



Utilities & Power – repair & protect equipment
•Corrosion control
•Erosion protection
•Electrically insulate



Transportation Infrastructure
•Rebar & Corrosion control

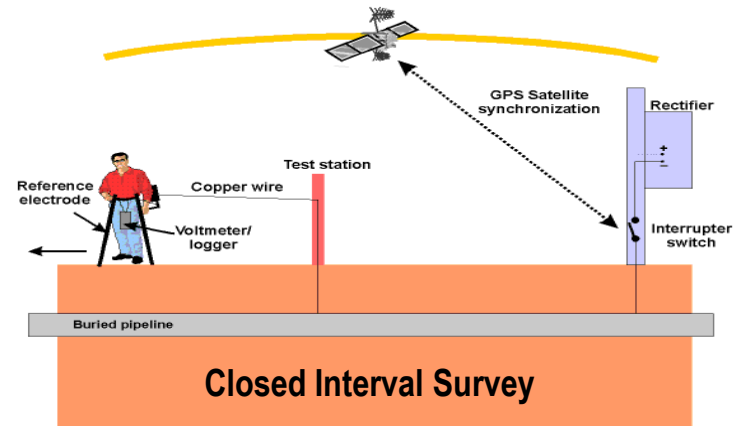


Building & Construction
•Roof, Wall, and Floor Coatings

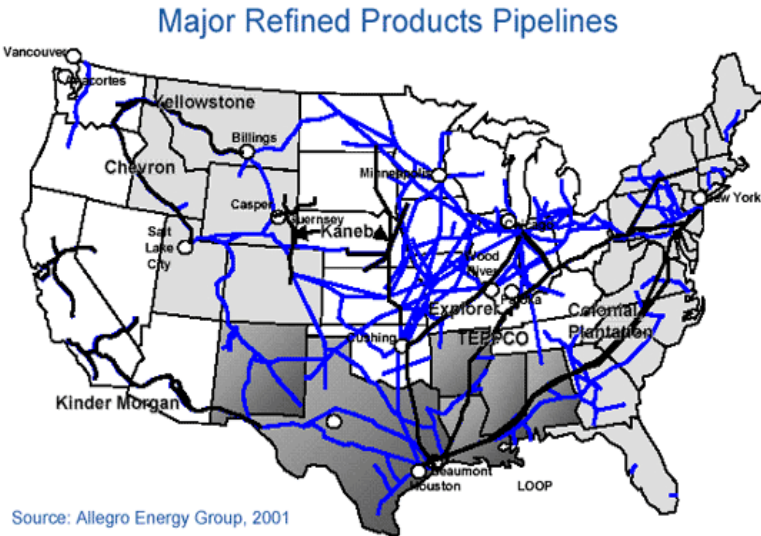
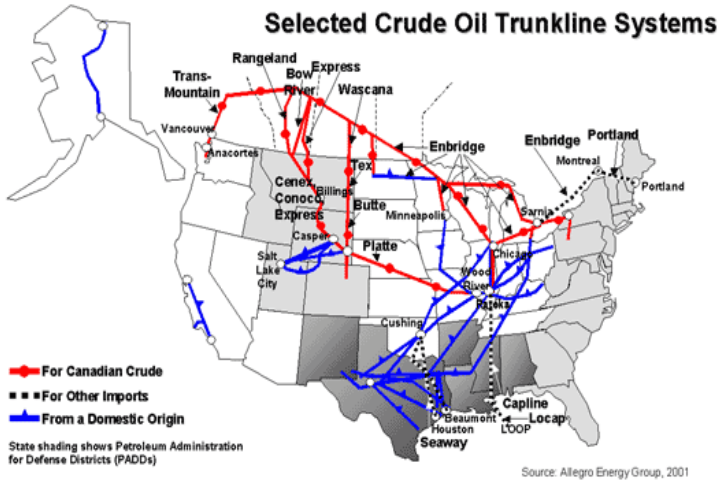


Pipeline Rehabilitation – high profile area of concern because of the impact of failure people/property

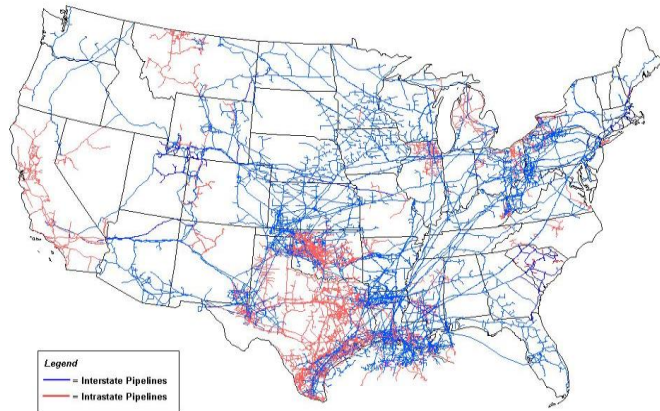
- Current System Failing/Performance Questionable due to Age of System – 2.2mil miles of PL w/25% @ 50+yrs.
- Potential for Government Regulation and Fines.
- Cost of New System is Prohibitive
- **Product Loss/Contamination**



U.S. Oil and Gas Total Pipeline Network



U.S. Natural Gas Pipeline Network



Source: Energy Information Administration, Office of Oil & Gas, Natural Gas Division, Gas Transportation Information System

**2.2M miles of pipeline running across the US.
 Over 600,000+/- miles of 8" > crude oil, gas, or finished products lines classified as transmission pipeline now mandated for intelligent pigging inspection on a 7yr or 10 yr cycle.**



3M CPP Products and Equipment for Pipe Line Rehabilitation and Girth Weld Coatings



Thanks for your attention
&
for allowing **3M** to be
part of **NASPD**

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