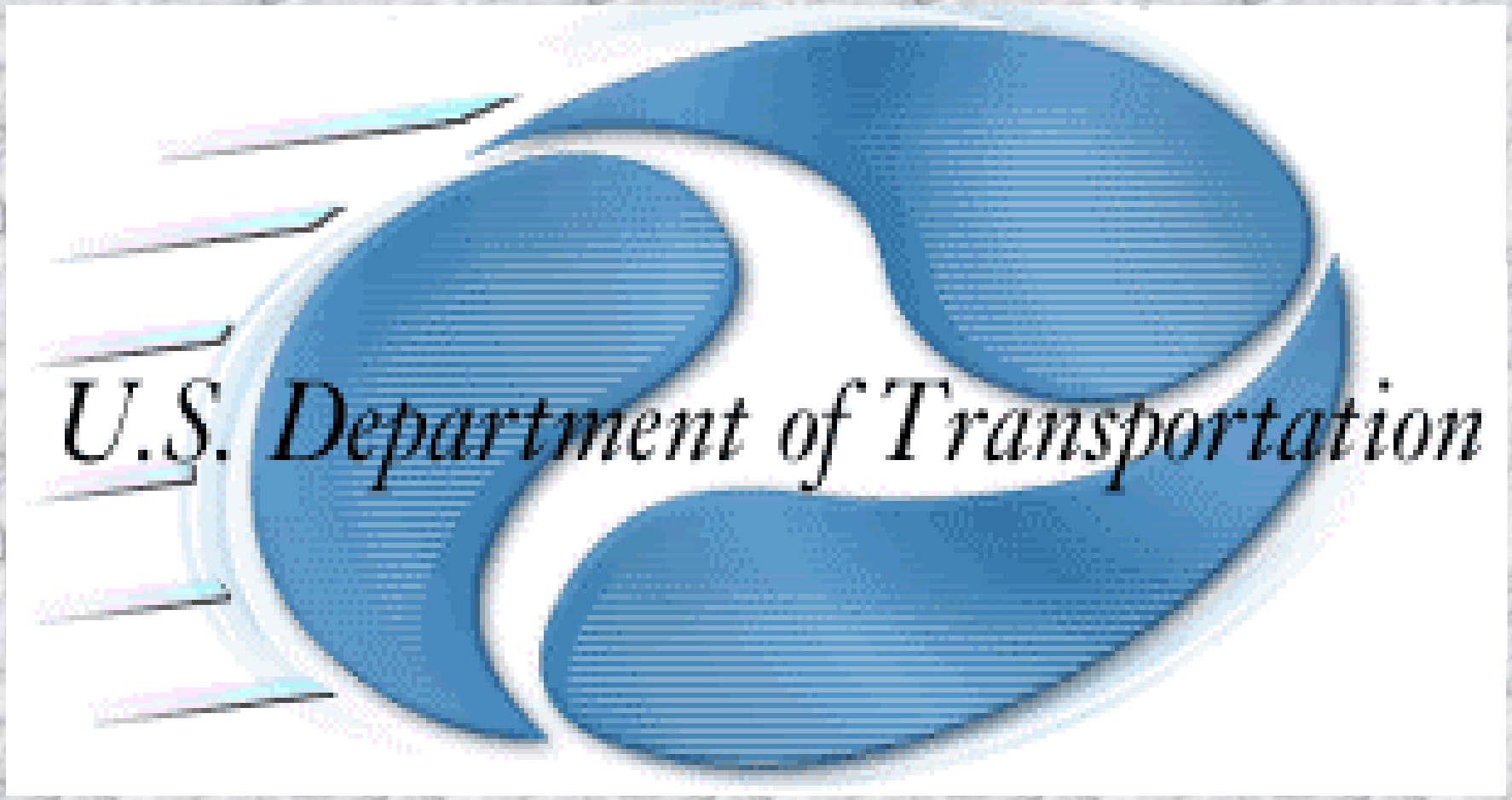


Public Forum Meeting
August 8, 2000

US DOT Office of Pipeline Safety Actions

- Issue Corrective Action Orders to Correct All Known Causes and Contributing Factors of June 10, 1999 Bellingham Disaster
- Provide Close Oversight to Ensure Completion of All Required Actions
- Address Pipeline Safety Concerns of Public Officials, Communities, and Citizens

Corrective Action Order Focus

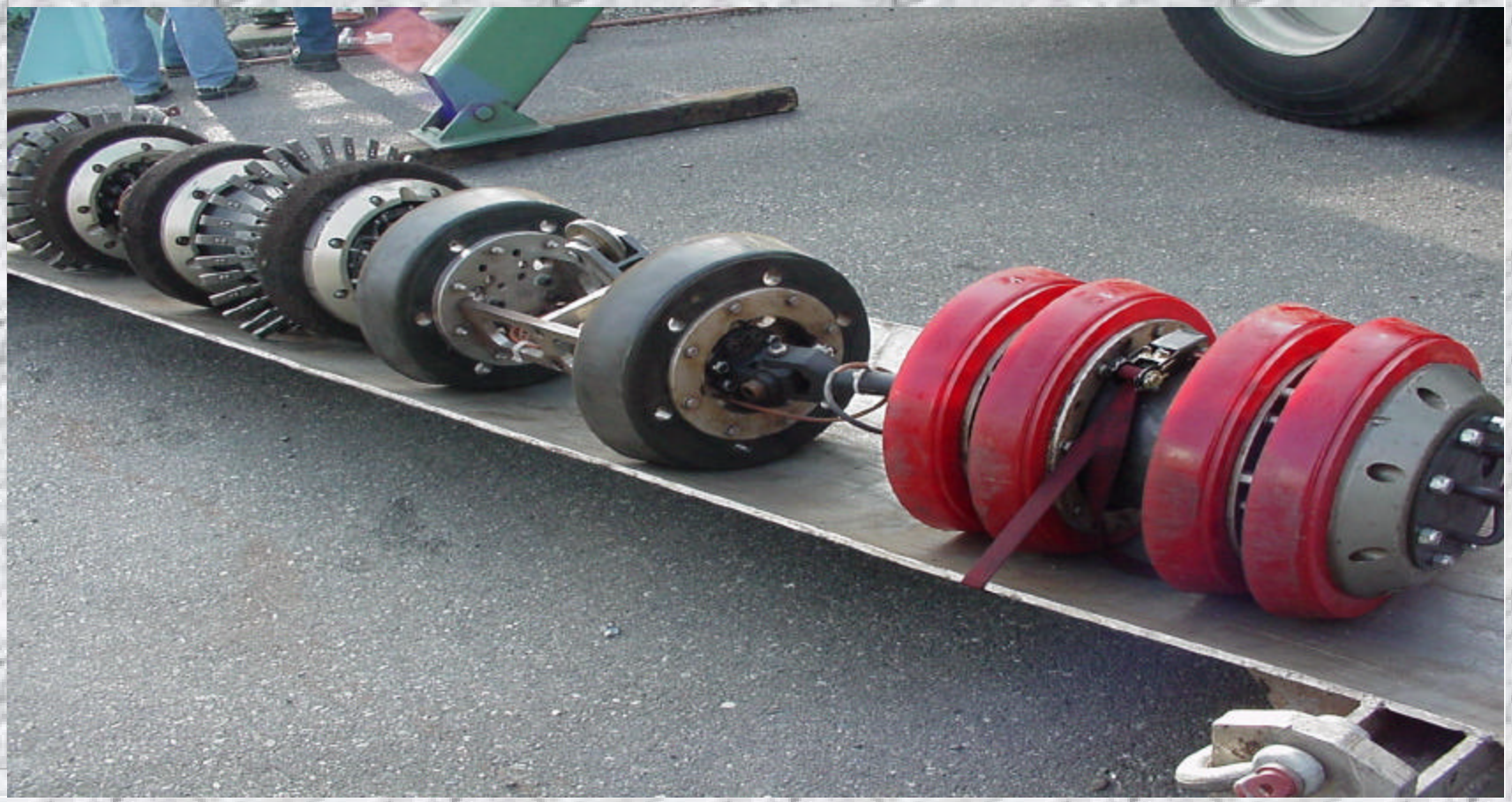
- Keep Product in Pipe
- Don’t Overpressure the Pipe
- Provide More Rapid Response in the Event of a Leak or Rupture
- Improve Control of Pipeline Operations
- Protect the Pipe

In-Line-Inspection

- Deformation Tool - dents, ovalities, wrinkles, and mechanical damage.
- Magnetic Flux Leakage (MFL) - metal loss, including gouges, scratches, and corrosion.
- Ultrasonic (UT) - corrosion, lamination, and inclusion.

In-Line-Inspection Tool

- 16 inches Deformation

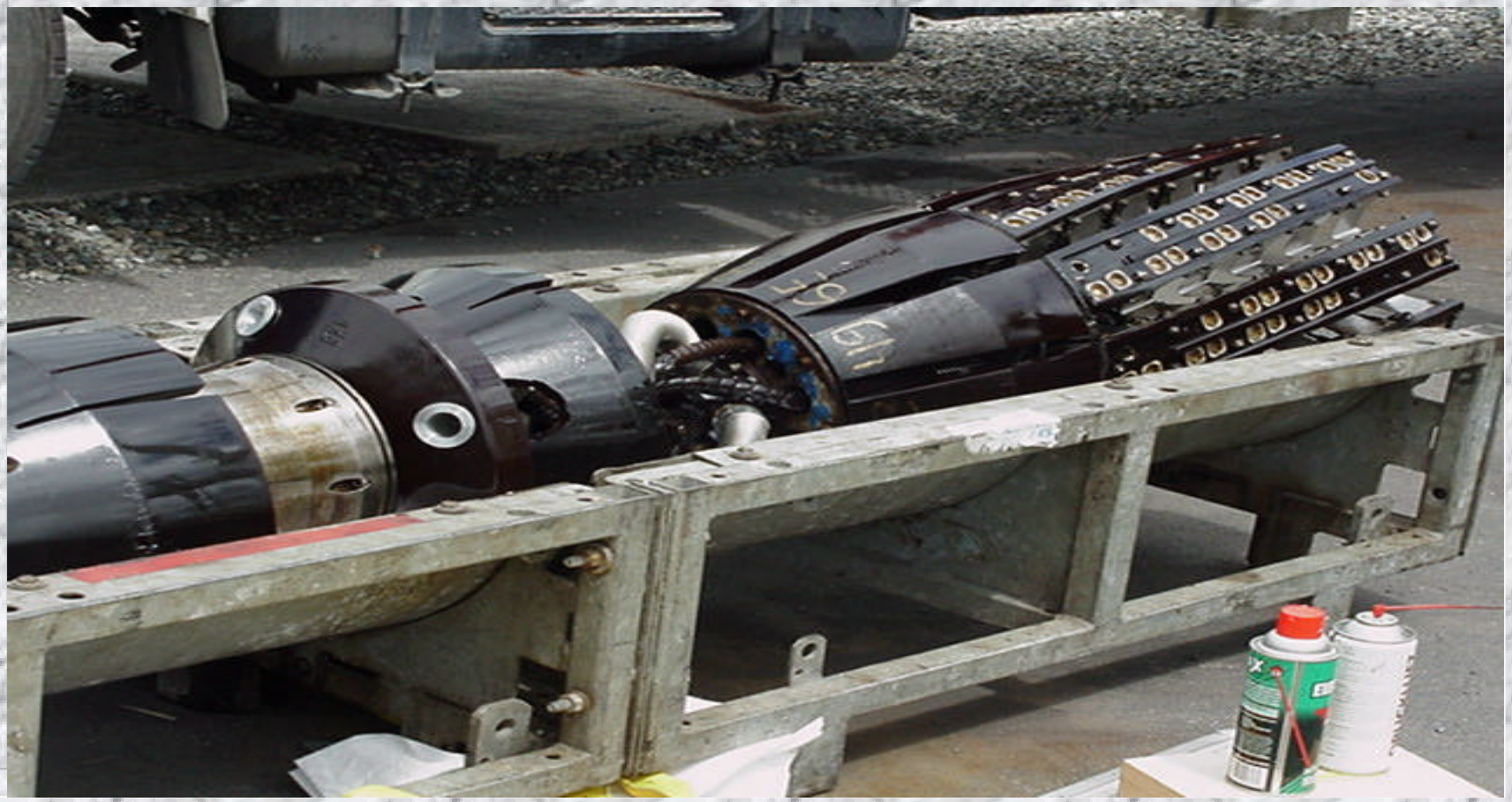


In-Line-Inspection Tool

- 16 inches Magnetic Flux Leakage (MFL)

In-Line-Inspection Tool

- 16 inches Ultrasonic



Hydrostatic Strength Testing

- Provide Assurance that the Pipeline Can Contain Product in a Worst Case Surge
- Verify that Olympic's Low Frequency Welded Pipe has Adequate Strength
- Completed November 1999

Valve Effectiveness Study for Ferndale to Allen Section

- Reduce Potential Spill Volumes
- Previously 4 Remote Operated Block Valves and 2 Manually Operated Block Valves
- Added 5 Check Valves
- Added 1 Remotely Operated Valve and Upgraded Manual Valves to Remote Operation

Valve Improvements

- MP 16 Remote Control Block Valve and New Check Valve
- Lakeway Dr.

Valve Improvements

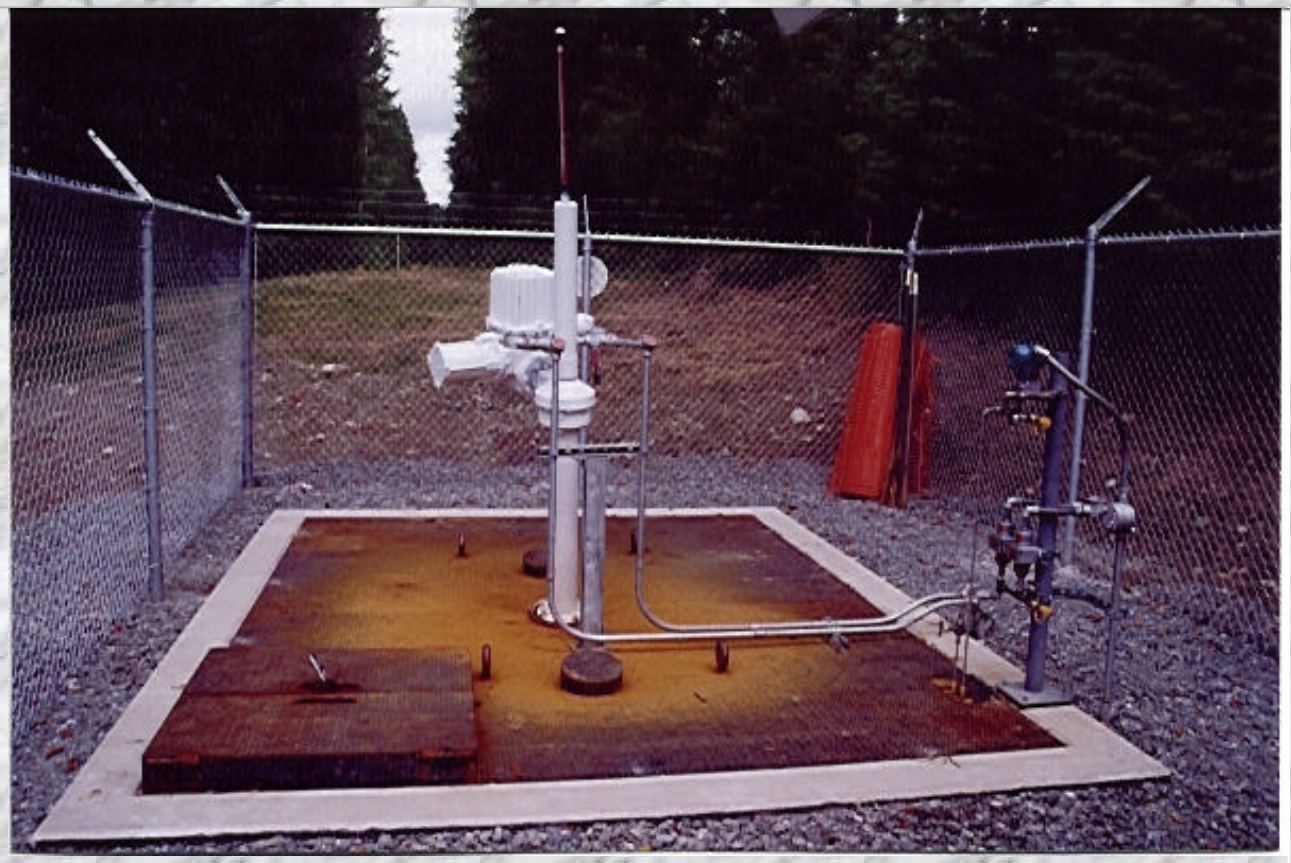
- New Check Valve at Milepost 21
- N. Lake Samish

Valve Improvements

- Colony Creek
- MP 28

Valve Improvements

- Remote Control of Existing Valve at MP 28
- New Vault

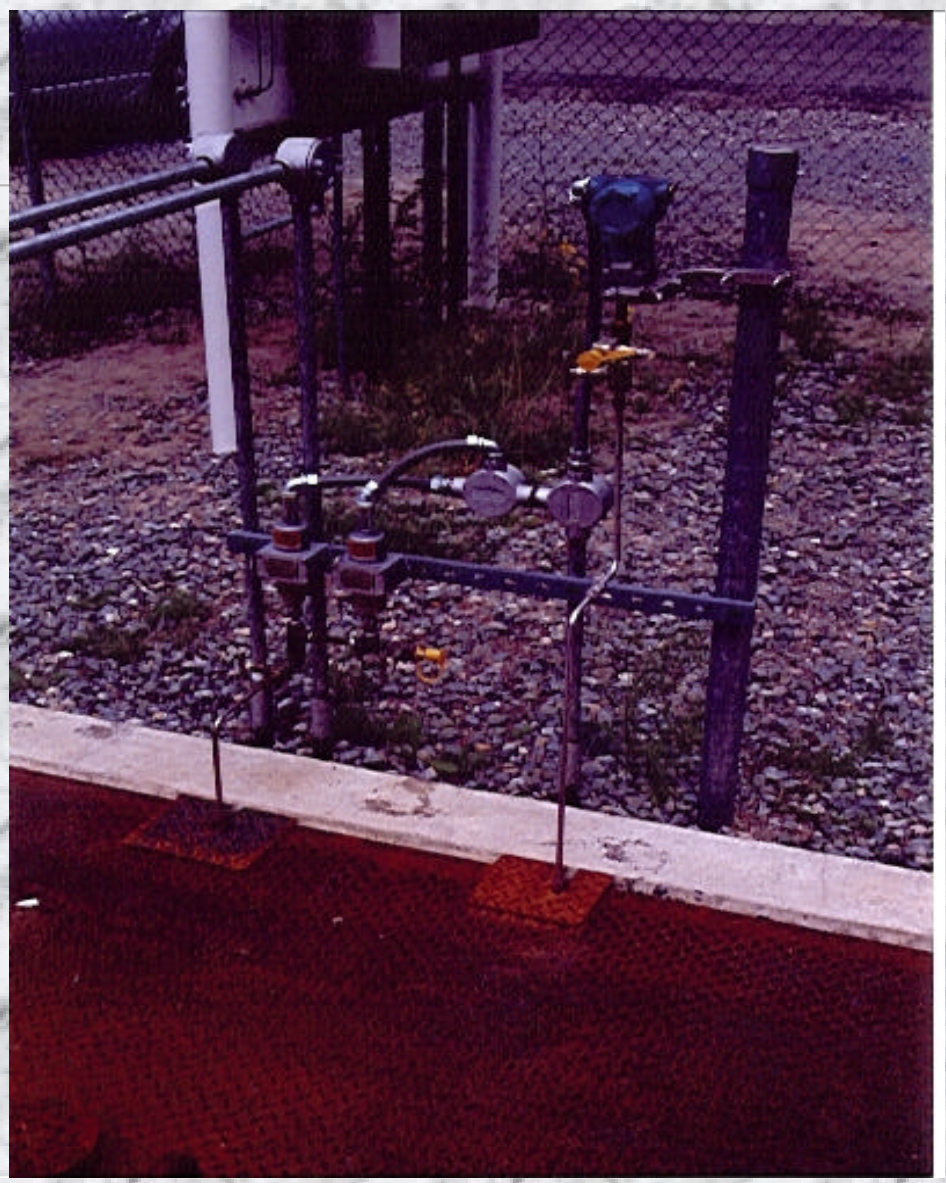


Valve Improvements

- Remote Control of Existing Valve at MP 34
- Samish River

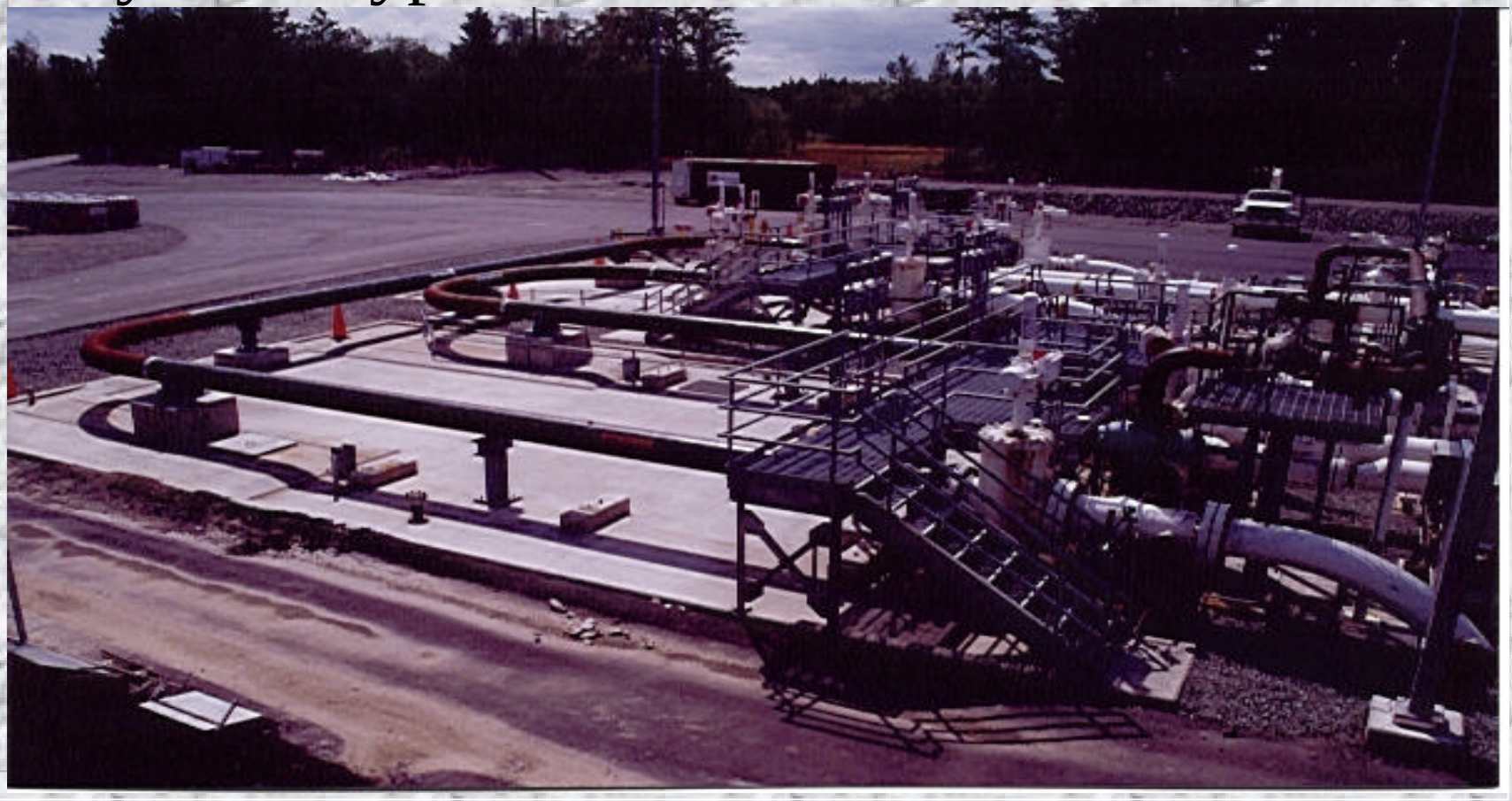
Valve Improvements

- Remote Control of Existing Valve at MP 34
- New Pressure Sensor and Overpressure Switches



Bayview Station

- Bayview Bypass



Bayview Station

- Bayview Incoming Block Valve & Relief Valve

Bayview Station

- Bayview Relief Tank 209

SCADA Improvement and Controller Training

- Upgraded SCADA computers in July 1999
- 750% More Processing Power
- No Significant Outages in Past Year
- Extensive Controller Training Certification and Refresher Program Instituted in 1999
- Testing to Demonstrate Competency
- Reinspected by OPS August 2000

Other Improvements to Pipeline Control

- Enhanced Over the Line Instrumentation
- Improved Relief Valve Status
- Automatic Shutdown of Ferndale Pumps
- Ultrasonic Metering Project

Questions???