



Major Pipeline Emergencies – First 48 Hours

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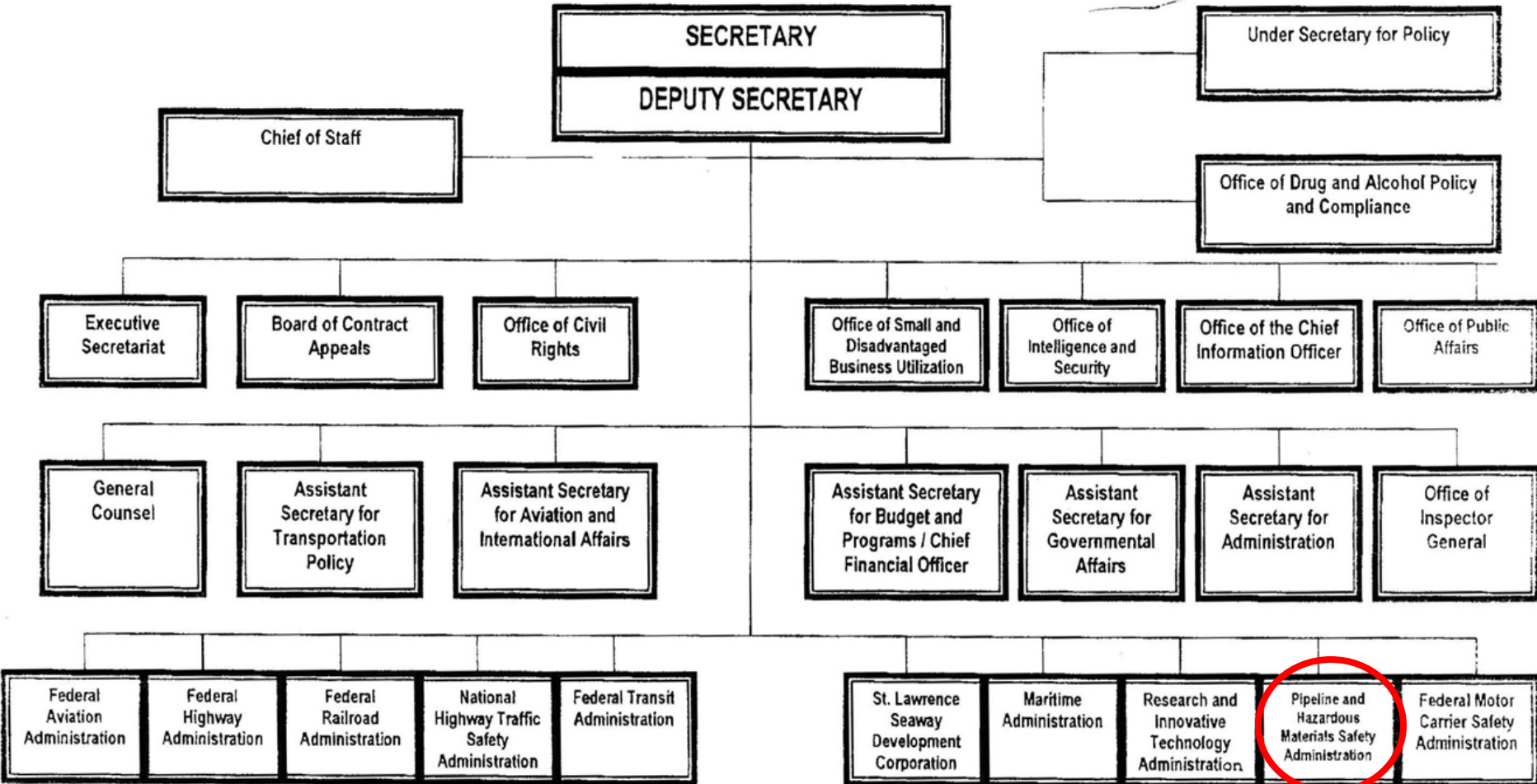
Pipeline and Hazardous Materials Safety Administration

Office of Pipeline Safety is responsible for ensuring the safe, reliable, and environmentally sound operations of our nation's hazardous gas and liquid pipeline transportation system.

This oversight can be directly for interstate pipelines or through the state safety agencies (except in Hawaii and Alaska)



U.S. DEPARTMENT OF TRANSPORTATION





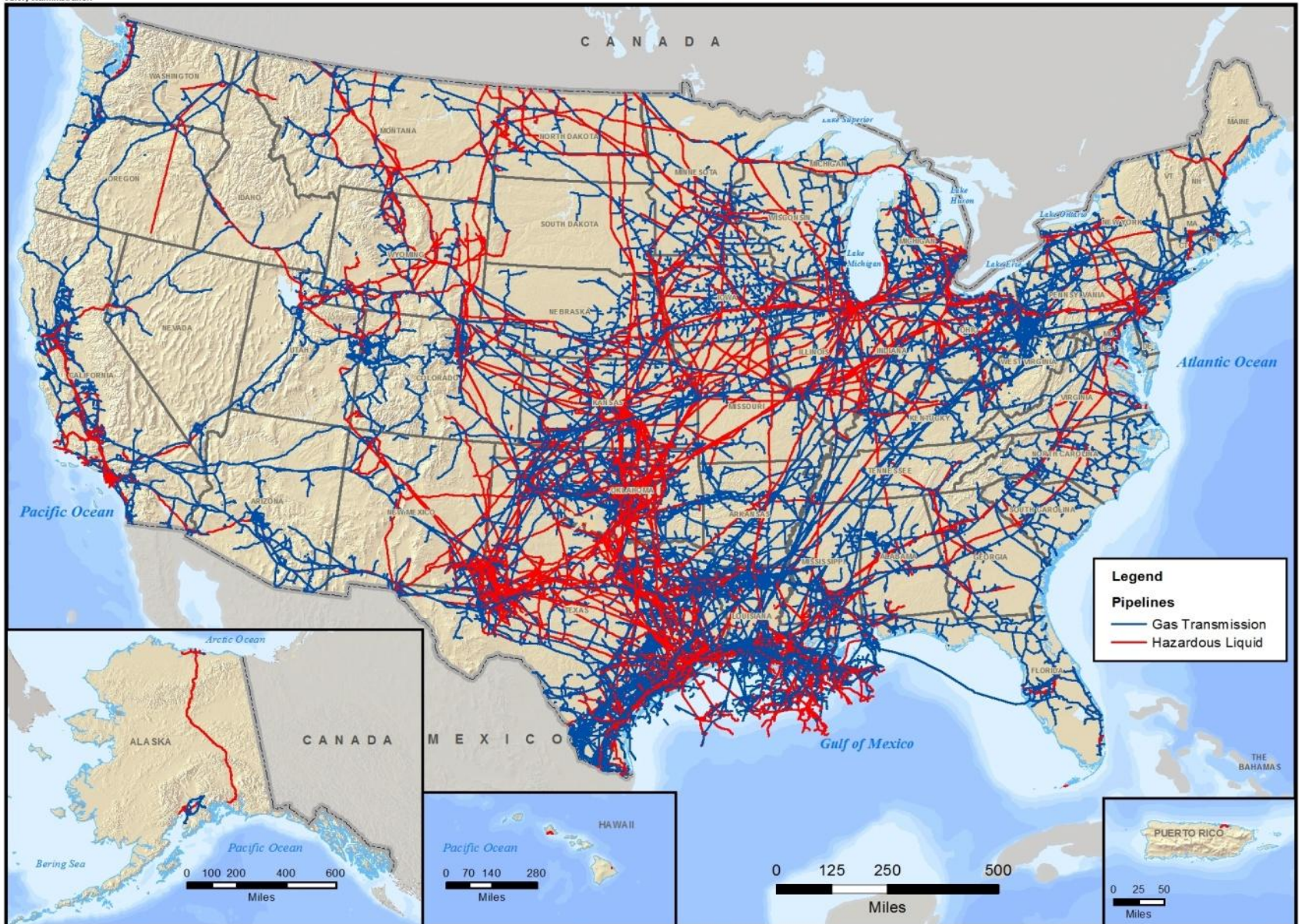
Authorities

Code of Federal Regulations Title 49 (49 CFR) § 5121 authorizes PHMSA a number of responsibilities including:

- Conducting Investigations
- Conducting tests
- Collecting and analyzing data, producing reports and
- Issuing subpoenas
- Conducting hearings
- Requiring regulated entities to produce records and property
- Taking depositions
- Conducting research, development, demonstration, and training activities
- Issuing orders requiring compliance with a regulation prescribed, corrective action, special permits, or approvals for operation
- Assessing and collecting civil penalties for violations
- Other legal action that maybe required

Gas Transmission and Hazardous Liquid Pipelines in the United States

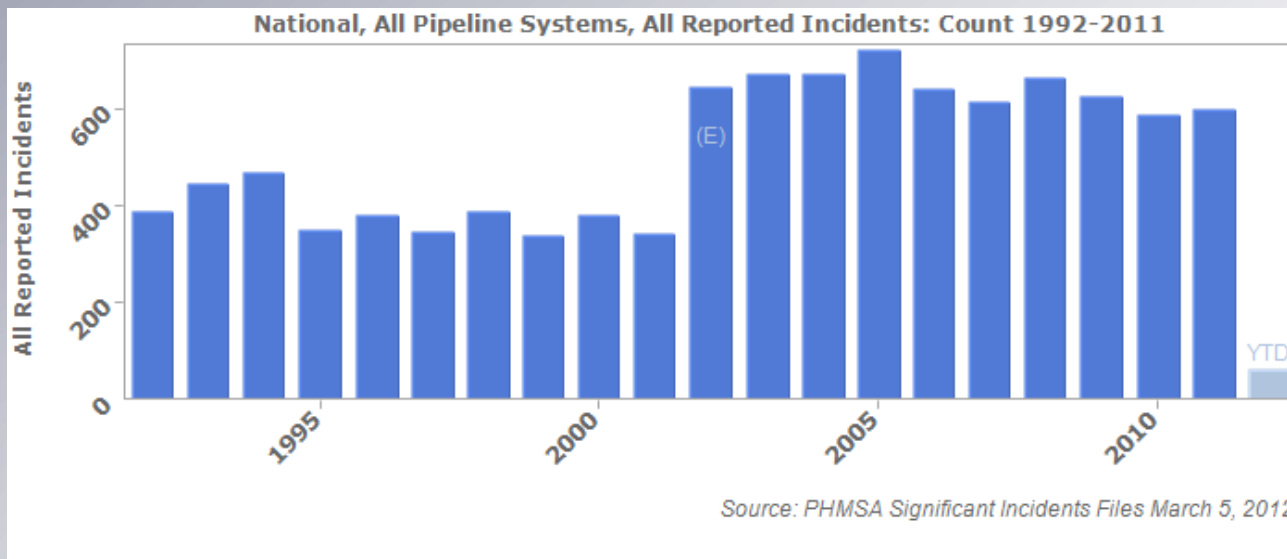
National Pipeline Mapping System





Pipeline Incidents

- Although pipeline incidents are down nearly 50 percent over the last 20 years, the pipeline infrastructure is aging.
- A recent rise in fatalities have raised concern. Recent incidents in Allentown and Philadelphia, PA and San Bruno, CA have prompted about fitness of the nation's pipeline system.





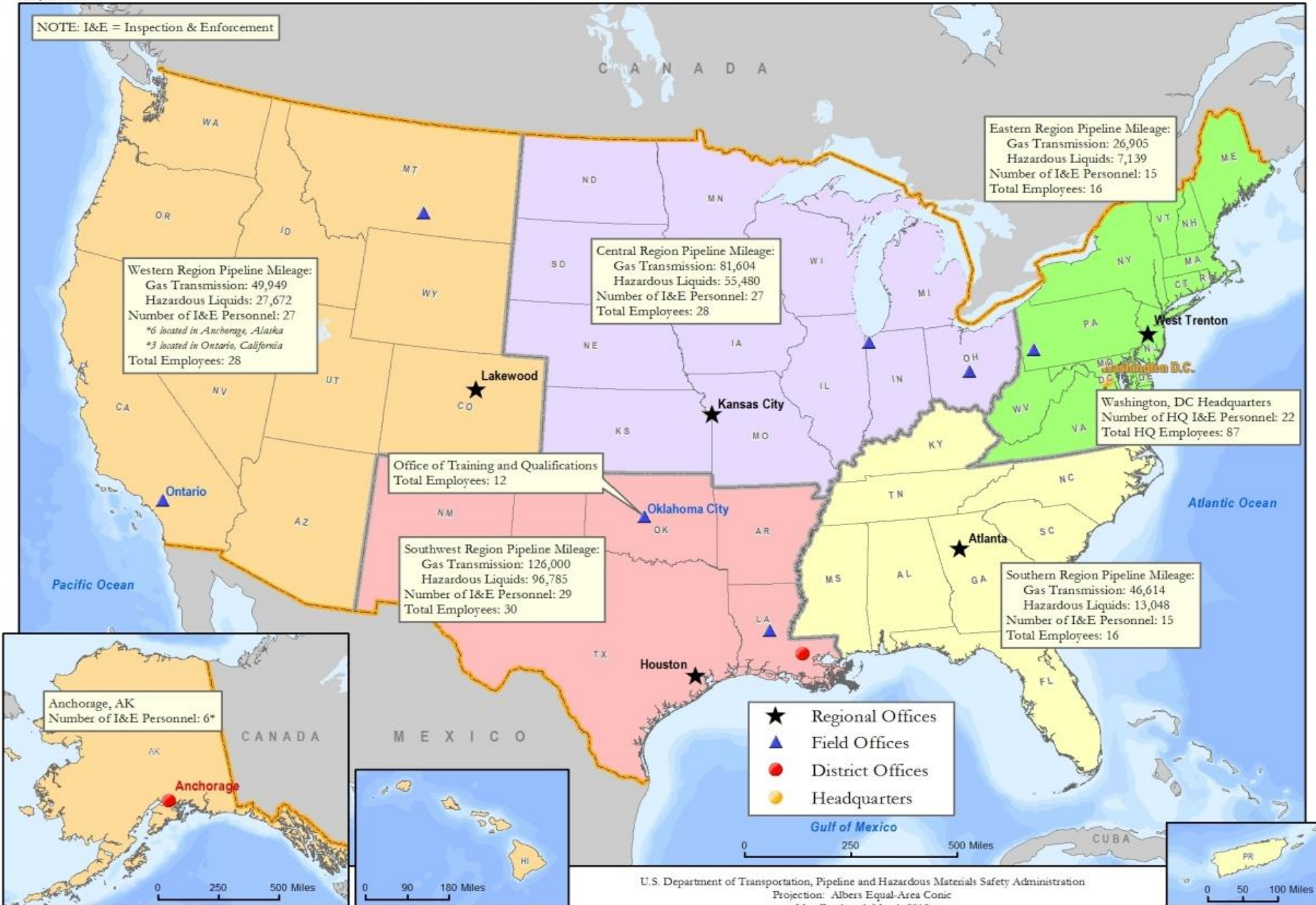
First 48 Hours: PHMSA's Role

While its capability and activity during the initial stages of an incident is generally a support role, PHMSA can provide the following:

1. Ensure pipeline operator has eliminated additional potential threats or further risks
2. Facilitate operator cooperation with local emergency responders, cooperating state and federal agencies (i.e. EPA, Coast Guard and NTSB)
3. Assist state and local emergency response agencies with technical expertise through the incident command system.
4. Assess any downstream (supply) impacts
5. Initiate investigation of contributing factors
6. Issue corrective action orders or safety directives
7. Serve as liaison to DOT HQ

Pipeline and Hazardous Materials Safety Administration OPS Headquarters, Regional, District, and Field Offices

NOTE: I&E = Inspection & Enforcement





Cooperate with other Federal and State Investigative Agencies

- PHMSA may take lead in failure investigation and can provide advisory role in response operations.
- If NTSB opens an investigation, it becomes primary investigative authority.
- Failures involving pipelines under a State Inspection Agreement, the PHMSA Regional Director determines if the PHMSA Region or the State utility agency will serve as the lead the on-site investigator.
- PHMSA's role becomes more prominent in the period following the initial 48 hours



Case Study–Silvertip Pipeline Failure

- Date: July 2, 2011
- Location: Laurel, Montana (Yellowstone River)
- Product: Crude Oil
- Amount Released: 1,000 bbl (42,000 gal)
 - **Incident reported to the National Response Center**
 - **PHMSA engineer is immediately dispatched** to the scene initiate investigation into the apparent cause of the leak.
 - **PHMSA headquarters is notified** of the incident's scope and the Western Region's active on-site investigation.





Case Study–Silvertip Pipeline Failure

- July 2, 2011
 - **NTSB** delegates final investigation duties to PHMSA.
 - **PHMSA issues a Corrective Action Order (CAO)** to pipeline operator specifying necessary actions in order to restart the line.
- July 4, 2011
 - **Second PHMSA engineer is dispatched to relieve first engineer.**



Case Study–Silvertip Pipeline Failure

- **Engineer is to the operator’s Operations Control Center (OCC).**
 - Gathers preliminary information on what occurred before, during and after the release.
 - Timeline of events; Pressure trends, alarm logs and event logs demonstrate when pressures dropped, when pumps shut down and when valves were closed.
- **PHMSA investigators gather information from OCC** and interview OCC Supervisor and operator’s field personnel in Montana.
- **Investigation in progress;** final cause of failure yet to be determined



Case Study–Silvertip Pipeline Failure

Nine Major Pipeline Failure Categories:

1. Excavation damage
2. External corrosion
3. Internal corrosion
4. Stress Corrosion Cracking
5. Pipe manufacturing
6. Construction
7. Equipment
8. Weather/Outside Factors
9. Incorrect operation.



Silvertip Crude Oil Incident

- 11 PHMSA personnel involved from 2 regional offices were involved
- 30 field days were required to monitor operator activities and ensure safe restart
- Additional weeks of data analysis, interviews, schematic and records review
- Participated in several town hall and other meeting with state and local officials
- Participated in several Congressional hearings and other inquiries



QUESTIONS

