

Review of the safety and integrity of ON- AND OFF- AIRPORT INFRASTRUCTURE FOR STORAGE AND DISTRIBUTION OF JET FUELS

Responding to Recommendation 14 of the Future of Aviation Advisory Committee

Introduction

The Future of Aviation Advisory Committee (FAAC) Final Report, dated April 2010, provided a series of recommendations to the Secretary of Transportation to address the aviation industry's major challenges. In recommendation 14, the FAAC expressed concern that: "Jet fuel price and supply volatility can result not only from oil price fluctuations, but also from disruptions in the downstream production and distribution of aviation fuels. A number of major metropolitan areas and major airports have limited and aging infrastructures for the distribution of jet fuel. In addition to oil price volatility, these weak links in the distribution network create additional threats to the economic health of the commercial air carrier and GA industries." The FAAC therefore recommended that the Secretary of Transportation undertake a study on the state of the nation's existing pipelines and infrastructure associated with the storage and distribution of jet fuels to US airports. In response to recommendation 14, the Pipeline and Hazardous Materials Safety Administration (PHMSA) prepared this report reviewing the safety and integrity of hazardous liquid pipelines transporting jet fuels and serving US airports.

Summary of Conclusions

Fuel service lines to airports are generally classified among High Consequence Areas (HCAs), which together involve approximately 77,000 (2009 statistics) pipeline HCA segment miles out of approximately 177,000 miles total of hazardous liquid pipeline. All HCAs have received a baseline integrity assessment by the pipeline operator, and most have been assessed a second time. Since inception of PHMSA's Integrity Management (IM) Program in 2002 through 2009, over 7,600 pipeline conditions were identified that required and received immediate corrective action and over 28,000 other conditions were identified and repaired on a scheduled basis. In addition to IM Rule HCA repairs, over 79,000 additional anomalies from both inside and outside of HCAs were repaired or mitigated that otherwise could have ultimately developed in pipeline failures. Importantly, reported accidents on hazardous liquid pipelines have decreased by 23% over this period. This experience, augmented by PHMSA's ongoing initiatives and research, provide a high degree of confidence in the safety and integrity of the nation's hazardous material liquid pipeline infrastructure, including jet fuel supply lines. The report also provides, in

Appendix A, representative examples of emergencies that might have affected jet fuel supplies, and the specific measures that were successfully undertaken in response.

PHMSA Jurisdiction over Airport Jet Fuel Supply Transportation Infrastructure

PHMSA, an agency of the Department of Transportation, has regulatory jurisdiction over hazardous liquid pipelines (49 USC 601), including airport jet fuel supply pipelines. The pipeline safety statute explicitly charges PHMSA with assuring safety and environmental protection associated with liquid pipelines. However, implicit in this scope is system integrity that is associated with system reliability. Integrity management and safety standards are designed to assure that pipelines are suitable for their intended service and that operational and maintenance practices assure safe operation and continued integrity.

PHMSA does not have authority to regulate the production or supply of the commodities transported in the pipelines (such as crude oil production and refineries), non-pipeline modes of transportation (such as airplane fueling trucks), or intra-plant pipelines at customer facilities (such as pipeline systems at airports that link to airport storage tanks, which are the local delivery terminus of the PHMSA regulated liquid pipeline transmission system to the airport). The operation of on-airport pipelines and facilities downstream of airport storage tank farms are typically the responsibility of the local airport. Security issues are the responsibility of the Department of Homeland Security.

Safety Standards

PHMSA has promulgated comprehensive regulations at 49 CFR Part 195, which apply to hazardous liquid pipelines, including airport jet fuel supply pipelines. The code addresses standards for design, materials, construction, operations, maintenance, operator qualification, and control room management. The code also mandates the testing, inspection and monitoring of pipeline operations to ensure safety.

Special integrity management (IM) requirements contained in the code apply to pipelines that could affect a High Consequence Area (HCA). These special requirements provide enhanced protection for pipelines by requiring periodic integrity assessments, timely repair if defects/anomalies are discovered through integrity inspections, integration of detailed data to discover previously unidentified threats, risk analysis specific to the pipeline operating environment, and implementation of additional preventive and mitigative measures. Most pipelines supplying jet fuel to US commercial airports in populated areas are subject to these special IM requirements and require enhanced protection measures.

PHMSA Inspection and Enforcement

PHMSA's inspection and enforcement program is designed to hold hazardous liquid pipeline operators accountable for compliance with minimum safety standards as codified in 49 CFR Part 195. Full-time pipeline inspectors operate from PHMSA regional offices in Trenton, NJ;

Atlanta; Kansas City, MO; Houston; and Denver. These inspectors conduct a comprehensive inspection and enforcement program to ensure that pipeline operators serving airports and other load centers are complying with pipeline safety regulations. PHMSA conducts the following types of inspections that increase assurance of compliance with minimum safety standards:

- Standard inspections;
- Integrity management inspections;
- Operations and Maintenance program inspections;
- Operator qualification inspections;
- Special inspections as circumstances (such as accidents) dictate. Accident investigations provide special emphasis on timely mitigation, repair, and actions to prevent recurrence; and
- Integrated inspections combining aspects of all inspections based on risk.

When a pipeline is not in compliance, PHMSA takes enforcement action, including civil penalties, as appropriate depending on the circumstances and severity of the non-compliance.

Advocacy for Cooperative Safety Programs

In addition to the inspection and enforcement of minimum safety standards of pipelines, PHMSA is a strong advocate and participant in industry/government cooperative programs to promote pipeline safety among all stakeholders. These programs enhance the safety of pipelines serving airports, the airports being served, and communications between pipeline operators and the public. Some of the major non-regulatory programs PHMSA supports include:

- PIPA - To assist communities to become better informed about transmission pipeline risks and to make better land use planning and development decisions related to pipelines, PHMSA initiated and supports the Pipelines and Informed Planning Alliance (PIPA). PIPA is a collaborative effort by a wide spectrum of pipeline safety stakeholders. PIPA has developed recommended practices for protecting communities, protecting transmission pipelines, and communicating among stakeholders. The PIPA recommended practices can help communities make risk-informed decisions for land use planning and development adjacent to transmission pipelines.
- CGA – In 1999, PHMSA published the Common Ground Study of One-Call Systems and Damage Prevention Best Practices. The Common Ground Study established best practices for all stakeholders to utilize in preventing excavation damage to underground facilities, including pipelines. Following the completion of the Common Ground Study, the Common Ground Alliance (CGA) was established as a nonprofit organization to foster the spirit of shared responsibility among all parties involved in damage prevention. The CGA is now comprised of almost 1,400 volunteer members who work together to identify and promote best practices aimed at keeping communities and the environment safe from the undesired consequences of damage to buried utilities.

- Damage Prevention Assistance - PHMSA has developed guidance, “Strengthening State Damage Prevention Programs,” to assist stakeholders. The guidance draws on the definition of effective damage prevention programs found in the PIPES Act of 2006. It examines the nine elements of effective damage prevention programs specified in the PIPES Act and makes suggestions for implementing them at the state level. State programs can be improved by incorporating the nine elements and by identifying and implementing positive changes in processes, procedures, technologies and damage prevention laws.
- Dig Safely –The primary tool for avoiding damage to underground facilities is timely communication between excavators and the owners of the facilities. One-call centers facilitate this communication process by enabling an excavator to place just one call, prior to digging, to request that all underground facilities in the area of a planned excavation be located and marked. PHMSA is a principal sponsor of the Dig Safely program and establishment of a national phone number (811) for one-call centers. By simply dialing 811, excavators can reach the one-call center where, at no cost to the excavator, companies that may operate underground utilities in the area will be notified. Those companies then dispatch locate crews to determine and mark the exact location of their utilities to avoid damage during excavation.
- CATS – PHMSA has a dedicated Community Assistance & Technical Services (CATS) team. Its mission is to advance public safety, environmental protection and pipeline reliability by facilitating clear communications among all pipeline stakeholders, including the public, pipeline operators, and government officials. An important aim of the CATS program is to reach out to all pipeline safety stakeholders. Responsibilities of CATS managers include (i) supplying information to help communities understand pipeline risks and improve pipeline safety and environmental protection, (ii) fostering effective communications regarding pipeline safety among PHMSA, other federal agencies, state pipeline safety regulators, elected and emergency officials, pipeline operators and the public, and (iii) facilitating permits required for safety-related pipeline repairs.

PHMSA Emergency Preparedness and Response

PHMSA plays a key safety oversight and restoration of service role during and after major events, such as natural disasters, that affect pipeline infrastructure. PHMSA plays a similar role during and after pipeline leaks and ruptures that result in the shut-in of operating pipelines. PHMSA’s response during such emergencies includes emphasis on promptly, but safely, restoring and maintaining critical fuel supplies during and after major disruptions. Oil and natural gas pipelines are critical infrastructure and those that supply aviation fuels to airports receive special attention as needed during emergencies. PHMSA’s support includes granting emergency waivers to pipeline safety regulations when warranted and justified by extraordinary circumstances. PHMSA also issues advisory bulletins to inform pipeline operators of special circumstances, hazards, precautions, and actions to help assure prompt and reliable restoration of safe pipeline operations following an emergency. Representative examples of the PHMSA

response to emergencies that might have affected airport jet fuel supplies are described in Appendix A.

Safety Performance and Accident History

The key indicator of safety performance of hazardous liquid pipelines in general is reflected in the number of reportable accidents. Figure 1 shows that reported accidents have decreased by 23% since 2002, the effective date of the integrity management rule.

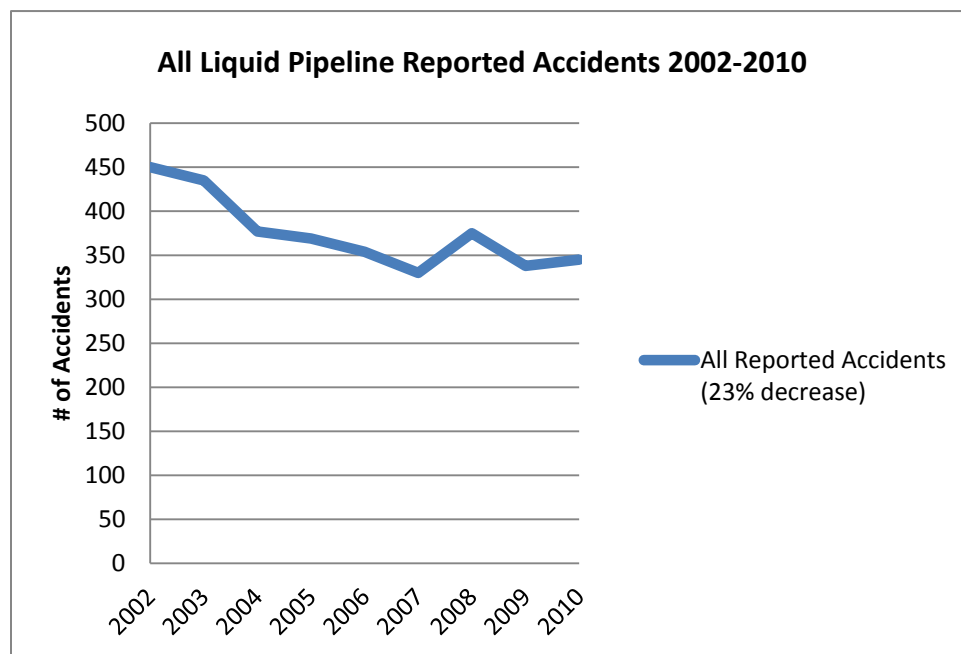


Figure 1

The cornerstones of the Integrity Management rule mentioned above are the requirements to conduct periodic integrity assessments of pipeline and repair anomalies that might ultimately threaten pipeline integrity. The following graph (Figure 2) shows the number of accidents for pipelines over the period from 2002 – 2010. This graph shows a 23% decrease over this period. Also shown on this graph are the accidents caused by failure mechanisms that can be identified by the most commonly applied integrity assessment techniques. These include corrosion, mechanical damage, and material defects. Accidents due to causes detectable by integrity assessment have diminished 31% since 2002.

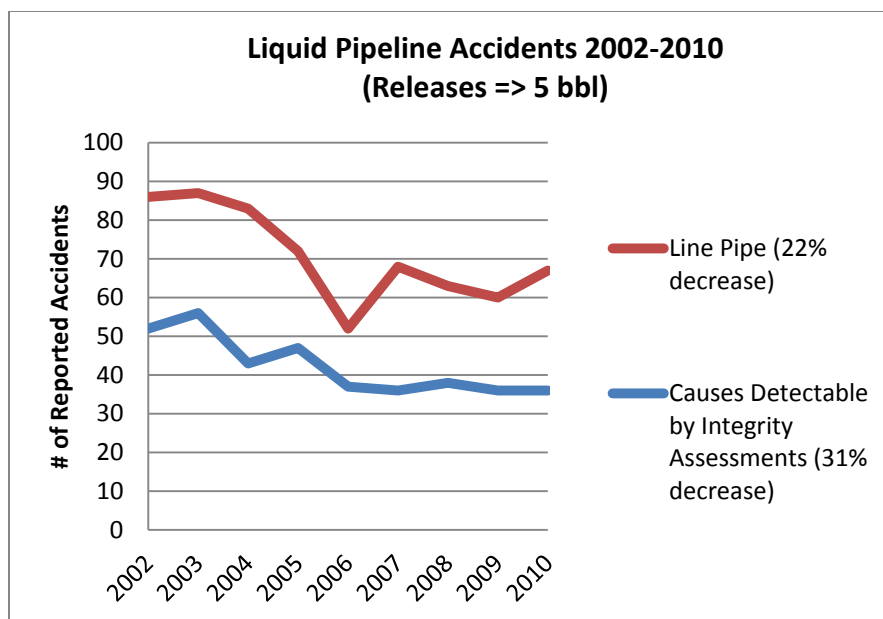


Figure 2

In addition to these direct measures of improved pipeline performance, detailed integrity assessment and repair data indicates that the nation's pipelines are in much better physical condition and that the potential for failures long into the future has been reduced. These regulatory and cooperative programs between all relevant parties help to ensure that, over time, disruptions in the transportation and distribution of aviation fuels to aircraft and users at US airports is minimized. For example:

The number of hazardous liquid pipeline segment miles that could potentially affect HCAs is approximately 77,000 miles (2009 statistics), representing approximately 44% of the total liquid pipeline mileage in the U.S. All of these locations, which also encompass airports, have received a baseline integrity assessment by the pipeline operator and most have been assessed a second time.

- From 2004-2009, approximately 436,000 miles of inspections and tests were performed on hazardous liquid pipelines, covering segments that could potentially affect High Consequence Areas as well as many other miles of pipelines.
- Since the Integrity Management Program's inception through 2009, there have been over 7600 pipeline conditions that required immediate attention and were repaired, over 28,000 other pipeline conditions identified that were repaired on a scheduled basis, and an additional 79,000 identified anomalies were remediated that were not required by the IM Rule.
- In 2009 alone, 653 conditions that were deemed by the rule to be serious enough to warrant immediate attention in the most sensitive pipeline segments, namely those that could potentially affect HCAs were repaired.

In addition to repairs in segments that can potentially affect HCAs, operators have been repairing a number of defects that are outside HCA-affecting segments, or are within these segments, but don't meet one of the prescribed conditions in the rule that would require repair. Since 2001, more than 79,000 such anomalies were repaired or mitigated. PHMSA believes that the repair of these anomalies has probably already prevented accidents, and will ultimately result in fewer accidents in the future. Without the assessment and repair requirements of the integrity management regulations, some of these anomalies might ultimately have resulted in pipeline failure.

It is also important to recognize that the impacts from the IM requirements are not necessarily immediate, nor in many cases will they be felt in the short term. Organizational transformations of the kind required for robust IM programs do not happen overnight. For instance, operators are required to develop robust risk analysis processes and use these methods to identify additional measures to prevent and mitigate accidents. The time required to develop these tools and acquire the data to support them, develop a qualified staff, and institutionalize these processes can take several years. Furthermore, the benefits of some measures (e.g., enhanced damage prevention programs, additional corrosion surveys, leak detection system improvements, installation of Emergency Flow Restricting Devices (EFRDs), etc.) may not be reflected in accident data for some time.

Based on these direct and indirect performance indicators, PHMSA is confident in continual improvement of hazardous material pipeline safety performance and efficient operation, preventing disruptions of service over the long term.

Oversight Agencies

PHMSA is subject to audits of the effectiveness of its safety programs from internal (and independent) DOT audits, congressional audits by the GAO, congressional oversight and oversight by other independent federal agencies. Through these audits and oversight, its programs are strengthened, having a direct impact on the safety, effectiveness and operations of pipelines serving airports. Specifically, the oversight includes:

- **NTSB** – The National Transportation Safety Board (NTSB) independently investigates major pipeline accidents. Formal investigation reports identify specific findings and recommendations for pipeline operators, PHMSA, and other stakeholders. PHMSA works closely with NTSB to implement and resolve the open findings and recommendations.
- **DOT OIG** – The DOT Office of the Inspector General (OIG) audits agencies and programs to identify waste, fraud and abuse, and to identify specific program improvements. The OIG is currently conducting an audit of the PHMSA Hazardous Liquid Integrity Management program. Recommendations from this audit, expected in February, 2012 will be used to improve PHMSA's oversight of integrity management previously mentioned above. In addition, OIG has announced plans to audit PHMSA's

implementation of the recently promulgated rule on pipeline Control Room Management (CRM) and state pipeline safety programs. PHMSA works closely with OIG to implement and resolve the open findings and recommendations of their audit reports.

- GAO - The US Government Accountability Office (GAO) is the investigative arm of Congress charged with the auditing and evaluation of Government programs and activities. GAO is currently auditing PHMSA jurisdiction, and the definition of gas transmission to determine if improvements or changes are needed in these aspects of pipeline safety oversight. PHMSA works closely with GAO on the audit report and to implement and resolve any open findings and recommendations.
- Congressional Oversight – The Congressional Committees with Authorization and Appropriations responsibilities for pipelines provide periodic reviews of PHMSA budgets and review and modification to programs.

Current and Planned PHMSA Pipeline Safety Initiatives

PHMSA continually seeks to further pipeline safety through current and planned initiatives to improve regulations, enhance inspection and enforcement, promote research and development of new technologies, and support cooperative stakeholder initiatives. Initiatives that are currently active and relevant to pipelines serving airports include:

- PHMSA published an advance notice of proposed rulemaking (ANPRM) to solicit input and comment from stakeholders for a contemplated rulemaking involving several specific aspects of Part 195 based on lessons learned from recent incidents. PHMSA is currently addressing public comments while drafting proposed revisions to the regulations expected to be published as a proposed rule in mid-2012.
- Transportation Secretary Ray LaHood issued a national call to action in April 2011, to engage state partners, technical experts, and pipeline operators in identifying pipeline safety and operational risks and repairing, rehabilitating, and replacing the highest risk infrastructure.
- Secretary LaHood also requested Congress to expand PHMSA's ability to oversee pipeline safety. In December 2011, Congress passed comprehensive pipeline safety legislation that, among other things, doubled the maximum fines authorized, allows PHMSA to promulgate regulations requiring automatic control valves, and requires PHMSA to conduct studies and report to Congress on selected technical issues of concern.
- Secretary LaHood issued the Pipeline Safety Action Plan, also in April 2011, directing owners and operators of energy pipelines, including pipelines serving airports, to conduct comprehensive reviews of pipeline safety and operations and to accelerate repair, rehabilitation and replacement projects.
- Secretary LaHood ordered a Report to America on Pipeline Safety due in the first quarter of 2012, (update) in reaction to pipeline accidents in Texas, Pennsylvania, Michigan, Florida and California. The report is currently under final review prior to publication. The

Report to America will document the current status of the nation's pipeline infrastructure and help answer the question: are we operating our pipelines as safely as we can, and if not what changes could be made to make them even safer, to prevent the types of safety or operational failures that have been in the news too often recently? This report is intended to provide information to help answer those questions, so people can better understand pipeline safety, including ongoing efforts to improve safety, and be better able to knowledgeably promote pipeline safety within local communities.

- PHMSA's active research and development program is also currently sponsoring projects that are directly applicable to hazardous liquid jet fuel pipelines but improve the operational and other practices used by all pipeline operators. Examples include:

Non-Destructive Quantitative Residual Stress Assessment Tool

This project is focused on the development of a non-destructive, quantitative residual stress assessment tool able to completely characterize anomalies associated with mechanical damage and corrosion to pipelines.

Low-Cost, Full-Field Tool for In-Ditch pipe Deformation Measurement

Development of a unique structured light-based pipe profiling tool that can be used to map and characterize pipeline damage comprehensively.

Development of Non-Destructive In-Service Detection of Damage Severity for Pipeline Steel Inspection

The objective of this project is to develop an advanced technique based on residual stress to evaluate the severity of damage without removal of the pipeline coating. This will enable improved integrity assessment and reduce the number of unnecessary pipeline removal and replacement activities.

Comprehensive Study to Understand Longitudinal Electric Resistance Welded (ERW) Seam Failures

This project has three primary objectives –

Integrate industry and PHMSA data to quantify vintage pipeline seam failure statistics with focus on Low Frequency ERW seams;

Understand longitudinal ERW seam failures and on that basis quantify the effectiveness of inspection and hydro testing to manage integrity and ensure safety to avoid/eliminate catastrophic failures; and

Combine outcomes of the first two objectives to help favorably close National Transportation Safety Board (NTSB) Recommendation P-09-1 that recommended that PHMSA conduct a comprehensive study to identify actions that can be taken to eliminate catastrophic longitudinal seam failures in ERW pipe.

Right-of-Way Automated Monitoring Threat Prevention

Develop a new generation of surveillance management systems by delivering a step-change improvement in the proactive prevention of threats to pipelines. Technologies developed will be used for the detection, identification, and communication of the threats and vulnerabilities to underground pipeline infrastructure. The program will develop an integrated, autonomous sensor/detector system for near real-time automated detection, identification, and notification of threats and leaks.

New Robotics Systems for In-Line Inspection of Transmission Pipelines where traditional inspection devices cannot be used

The main objective of this project is to complete the development of the Explorer II and TIGRE robotics systems for inspecting the integrity of transmission pipelines.

Remote Leak Detector for Liquid Hydrocarbons

The project's main objective is to develop a portable, hand-held sensor for detection of petroleum product leaks from buried pipelines at stand-off distances up to 30 meters or about 98 feet.

Conclusions

This report was prepared by PHMSA to address questions and concerns about the safety and operational reliability of aviation fuels pipelines serving airports contained in the Secretary's, 2010 Future of Aviation Advisory Commission Report, specifically recommendation 14. Since the FAAC issued the recommendation, PHMSA has developed initiatives that directly address pipeline safety and reliability. PHMSA has a high degree of confidence in the safety and integrity of the nation's hazardous material liquid pipeline infrastructure, including airport jet fuel supply lines, which remain the safest way to move energy supplies to market. In many cases, anomalies and leaks that have been discovered on jet fuel supply pipelines are repaired promptly to avoid depletion of on-airport supplies such that major disruptions of airport operations rarely, if ever, occur. Furthermore, PHMSA's ongoing initiatives and research, along with its robust and mature safety oversight program, provide confidence that long term safety and reliability of jet fuel pipelines serving airports will be further assured. Moreover, DOT's engagement and challenge to the pipeline industry provides added emphasis and momentum to improving the long term performance and safety of pipelines in the United States.

Appendix A

Examples of PHMSA Response to Emergencies on Pipelines Supplying Airport Jet Fuel

Example 1:

On May 23, 2004, at 9:30 a.m., BP Pipelines North America (BPNA) reported a leak on its pipeline from a small stainless steel sampling line going into a building at their Renton, Washington Station. The leak had ignited and was burning. The leaking product was gasoline. Although no deaths or injuries occurred, three employees were evacuated from the pump station. A nearby public road (Lind Avenue) was closed for one hour. No gasoline reached any water. Although the amount of the release was small (approximately 70 to 90 barrels), the pipeline had to be shut-in because of the open fire that was an extreme hazard.

PHMSA, through its interstate agent (Washington UTC), dispatched a senior engineer to the scene. The fire was extinguished in approximately one hour. After the fire was extinguished and the immediate safety hazard was averted, PHMSA worked with the operator to safely restore operation in a timely manner.

The pipeline transports a variety of refined petroleum products to the Seattle and Portland area, including jet fuel to SEA-TAC. At the time of this incident, the chief supply problem of concern was the Seattle airport, which had only a few days supply on hand. At the time of the incident, jet fuel was in the pipeline, and in the process of being delivered to the airport, but was approximately four miles from the airport when the pipeline was shut-in. The jet fuel could not be delivered until the pipeline was placed back into service. Upon recognition of this situation, PHMSA promptly notified the US DOE Office of Energy Assurance (DOE/OEA) who began contingency planning to deal with a potential jet fuel supply disruption. PHMSA also notified the DOT Crisis Management Center (CMC), the National Transportation Safety Board (NTSB), and Washington State government agencies.

PHMSA continually monitored progress toward completing repairs and restoring operations. The Pipeline operator completed repairs and began moving product on the evening of May 25, 2004. Delivery of jet fuel to SEA-TAC began shortly thereafter, with no shortage or adverse impact on commercial flights or airport operations.

Example 2:

On November 9, 2004, at 6:00 p.m., Kinder Morgan Energy Partners (KMEP) experienced a catastrophic rupture and explosion of its Concord-to-San Jose pipeline in Walnut Creek, CA. There were five fatalities. KMEP immediately shut down the pipeline and drained the affected pipeline section back to their Concord Station. This pipeline transports several commodities, from natural gas liquids to refined petroleum fuels, including jet fuel supplies, for the San Jose airport. It was transporting gasoline when the accident occurred. At the time of the accident, the San Jose airport had a 10 day supply of jet fuel.

This pipeline is an intrastate pipeline regulated by the California State Fire Marshall (SFM). The SFM sent two investigators to the site. The California Office of Safety and Health Administration (Cal-OSHA) also investigated the accident. PHMSA Western Region accident investigators supported SFM in monitoring and following up on this accident. PHMSA also notified DOE/OEA, CMC, and NTSB.

KMEP advised shippers to make alternative plans to deliver their products. Besides KMEP, another major oil company has a proprietary pipeline that delivers refined petroleum products to San Jose.

On November 12, SFM and Cal-OSHA gave KMEP permission to initiate repairs and operations resumed on the evening of November 13 (four days after the accident) with no shortage or adverse impact on commercial flights or airport operations at San Jose airport.

Example 3:

On August 7, 2006, at 9:30 p.m., Plantation Pipeline identified a small amount of product in a culvert near their 6-inch pipeline serving Dulles Airport in Fairfax County, VA, after a call from a private citizen reporting an odor in this predominantly residential area. Plantation promptly shut down the pipeline. A pressure drop had not been observed through their supervisory control and data acquisition (SCADA) system. The incident occurred about 50 feet from another pipeline, which also supplies fuel to Dulles.

PHMSA Eastern Region (ER) and Virginia State Corporation Commission (SCC) both dispatched investigators to the incident location to monitor Plantation's response. PHMSA also notified CMC, the Environmental Protection Agency (EPA), and the Transportation Security Administration (TSA).

Plantation excavated and exposed approximately 25 feet of the pipeline and found no signs of leakage or contaminated soil. They subsequently re-pressurized the pipeline and performed a leak test. No leaks were discovered and the line was placed back in service while continuing to monitor and observe for leakage. The pipeline remained uncovered and monitored while undergoing leakage testing until both PHMSA- ER and VA SCC ruled out the pipeline as the source of the product.

No adverse fuel supply issues occurred at Dulles during Plantation's pipeline shut down and investigation. Fuel deliveries continued to the airport from the adjacent pipeline throughout the investigation of the Plantation pipeline incident.

Example 4:

On October 2, 2007, at 7:10 p.m., Kinder Morgan Energy Partners (KMEP) experienced a rupture on a petroleum pipeline in Reno. Approximately 850 barrels of jet fuel were spilled. There were no injuries or fatalities, but 15 people were evacuated from a neighboring concrete plant and rail traffic was temporarily halted in the area.

The pipeline supplied several different refined products to Reno, including jet fuel for the airport there. At the time of the accident, the airport had a 3 day supply of jet fuel.

PHMSA's Western Regional Office worked with KMEP to restore service.

PHMSA Western Region and Nevada Public Utility Commission investigators were dispatched to the scene. They monitored the repair and restoration process.

PHMSA reviewed and approved the operator's proposed plan to restore operation of the pipeline, which included a stand up pressure test of the line and detailed restart procedures. Testing of the repaired section of pipe was done with enhanced surveillance and emergency response teams in place. As the control room for this pipeline is located in California, PHMSA's California Partner Agency, the State Fire Marshal's Office, supported PHMSA by monitoring control room actions during the testing and start-up processes.

During the restart efforts, PHMSA conferred with the operator concerning alternate fuel supplies to the area, including supply of jet fuel to the Reno airport. On October 4, after testing was completed and PHMSA approved the pipeline to operate, the pipeline was restored to operation, with no jet fuel shortage or adverse impact on commercial flights or airport operations.