Pipeline safety—know what to do in case of emergency January 2007

—J. PATTERSON

During the work on the pipelines this summer many residents were surprised to learn there were pipelines in their backyards. Although pipelines are the safest and most efficient way to transport many hazardous materials, accidents do occur.

It is essential for people to know where the pipelines are and what to do in case of emergency. The two main things people need to know are where pipelines are and what is an emergency. Residents should be aware that pipeline workers frequently check and maintain their lines, and that keeps the lines safe. If people accost them for trespassing, they have a much harder time doing their jobs.

People who live in places where pipelines are close to homes, schools, and businesses—such as Placitas, Bernalillo, and Algodones—should be aware that pipelines run through their communities. In Placitas, the pipelines run past the school, the community center, and through Las Huertas Creek. In Bernalillo, the lines run past the north end of town. In Algodones, they run through the south side of town. Pipeline rights-of-way are strips of open ground over a pipeline that are kept free of trees and large vegetation and are used by workers to access lines for inspections and maintenance. They are big enough to drive over, but just because they are clear of trees and most vegetation doesn't mean there is a pipe under the whole area.

Enterprise, Kinder Morgan, and Giant all have pipelines operating in the area. There are four active lines that carry liquid propane gas, carbon dioxide, and refined oil products. There are also two lines that are currently out of use, although one is being refurbished to carry crude oil.

It is important that people be educated about what to do in case of an emergency. There has been little or no pipeline-safety education in Placitas and certainly none in the prescribed two-year time frame. Partly due to the PATRIOT Act, people in the media and the government have been reluctant to educate citizens about pipelines, but there should be a balance between security and the need to know.

A single accident can injure hundreds of people and cost millions of dollars in damages and lost wages. The economic impact if these major energy-supply lines are cut off is immense. Tougher laws with many prescriptive standards were passed in 2002 ,when they were included in the cumbersome and controversial Energy Policy Act. The National Transportation Safety Board had been recommending since 1987 that pipeline companies inspect their lines periodically. They are now required to check their pipes every two weeks and this is usually done by light aircraft and periodically by "smart pigs" that check for pressure leaks, dents, and corrosion. Even with the stronger laws, pipelines could be safer, but, unfortunately, any costs would most likely fall on taxpayers.

There are around half a million miles of pipelines in the United States and many of them are already thirty to fifty years old. The most common cause of pipeline accidents is corrosion. Another common cause of accidents happens when people excavate near a line and dent or nick it. If the line is dented, the damage might not be immediately apparent, but the dent serves to

focus pressure and because it is weakened, could rupture at any time. It is a federal offence to dig without calling the pipeline number, which can be found on the marker signs on right-of-ways.

Other causes of leaks are weld, joint, and coupling failures. In addition, a small fraction of accidents are caused by operator error. New pipelines are obviously much better than old lines, especially in light of the newer polycarbonate-plastic coatings and other new technology. Pipeline companies should be encouraged to make their lines better and safer.

One way to make everyone safer is to have public-education and emergency-evacuation plans. People need to know what to do if something happens. The reluctance to educate the public could lead to tragedy if this problem is not remedied. "Openness builds trust and confidence in the process," said Carol Parker, attorney and pipeline-safety advocate, at a talk on pipeline safety in New Orleans in November. "It enhances public confidence, provides a community therapeutic value, assumes informed public debate, and promotes public acceptance of fallibility."

Children learn much more quickly than adults and there have been suggestions that pipeline safety should be taught in schools along with "stop, drop, and roll" and other safety measures. Also in progress is a one-step call system for pipeline emergencies.

Many people and animals have been killed and injured either by suffocation, as in the case of carbon dioxide, or from burns resulting from explosions or boiling water that has been heated by a blast. The best thing people can do is be aware—this means knowing what to look for, where to look for it, and whom to call.

Propane gas vapor is heavier than air and tends to fall down valleys or blow with the wind, and it looks like fog. If a car drives into a gas cloud the engine will stall. If this happens, do not try to restart the car. Take a deep breath and run as far as you can away from the cloud, preferably up a hill or upwind. Carbon dioxide cannot be seen or smelled, but it is heavier than air.

Jet fuel, crude oil, and other liquid products are extremely harmful to the environment if there is a leak. The contents drain into waterways and pollute the ground and drinking water. If there is a leak in a liquid pipeline, often the first thing that can be noticed is the smell of diesel or jet fuel. Any sign of a leak should be reported immediately.

If gas is present, do not dial a phone, even a cellular phone, or start a car, as these could all be ignition sources. Get to a safe place upwind or uphill immediately and report the leak as soon as possible. "You should take pictures. Dispatchers who deal with pipeline accidents receive frequent prank calls and it is important to have proof of a real problem," said Parker. "Otherwise they won't take you seriously."

People who are concerned about pipeline safety can get involved by forming an organization or going to public meetings. There is a Web site for pipeline safety at PSTrust.org, or you can search for "pipeline safety" on the Internet.