Gasoline pipeline damaged by construction causes fire

A construction crew was installing a new underground water pipe. While digging, the excavation equipment accidentally struck and punctured a pipeline carrying gasoline. The leaking vapors were ignited causing a serious explosion and fire which killed five construction workers, seriously injured four others, required evacuation of people within ½ mile (0.9 Km) of the incident site, severely damaged a nearby house, and caused other property damage. A primary cause of the incident was that the exact location of the gasoline pipe was not known by the excavation workers. They were following markings on the ground made by the pipeline company, which were different from the engineering plans. The engineering drawings showed the pipe curving out around the trunk of a tree, which had been cut down after the pipeline was built. Workers and supervisors did not visually verify the pipe location using hand tools as required by good practice.

Do you know?
This incident occurred in a transportation pipeline in a community, but there are similar hazards in many chemical, refining, or other manufacturing facilities. Many plants have underground pipelines carrying hazardous materials. These may be the plant’s own pipelines, or pipelines passing through the plant site which are owned and operated by somebody else – a pipeline company, a neighboring plant, or the local natural gas company.

What can you do?
• Before starting any excavation operation, ask if anyone has verified the location of underground pipes, electrical cables, or other critical or hazardous items in the area to be excavated. This should be a part of your facility’s excavation permit program.
• Conduct safety reviews before any construction activities.
• Report any near misses in excavation activities – pipes found where none were expected, or in a different location than expected.
• Learn the location of any hazardous pipelines which go through your facilities, and how to respond if there is a leak for any reason.
• If you are digging in the area of any pipelines or other hazardous facilities, make sure you understand and are trained in appropriate emergency procedures.

Know what is underground before you dig!