Underground Tank Removal Program

Underground Gasoline Leaks

BACKGROUND

The Issue

ARCO Petroleum Products Company leases out some 3,000 service stations and owns and operates another 120 stations. Many stations were built in the 1960s and have underground steel storage tanks which—because of their age, composition and location—tend to develop leaks.

Retail Marketing in 1980 announced plans through API for a $36 million, five-year program of testing and replacing old and potentially leaking gasoline storage tanks. Under the program, each of the company’s approximately 12,000 underground storage tanks was to be tested in the 1980-85 period. If any one tank at a location was found defective, all tanks of the same age and construction at the site were to be replaced. There is also an ongoing inventory control program, a spill containment procedure, and a commitment to cleaning up spilled gasoline.

Industrywide, the underground storage and dispensing systems at the 180,000 service stations in the country constitute a major problem. Due to the vast number of installations and the fact that their underground location permits only limited inspection and observation, the tanks present a significant potential source of leakage. API and individual companies are devoting considerable attention to the problem.

The issue is essentially a health/safety and environmental one. Escaping vapors can seep into basements, sewers and conduits, creating not only a nuisance but the danger of explosion and/or fire. Escaping gasoline also enters and pollutes the water table. (Groundwater is a major source of the U.S. water supply.) Certain chemicals in gasoline (namely the aromatics like benzene) may be carcinogenic or toxic in certain quantities. Polluted groundwater of gasoline also presents waste disposal problems, primarily because of the toxicity potential.

The Problem at ARCO

Marketing’s present posture on underground leaks can best be described as cautious and unhurried. Its 1981 program has been halting and troubled-plagued, principally because a new detection system developed by Harvey Technical Center has proved unreliable. Due to this setback and other financial concerns, it is extremely unlikely that Marketing will spend even the reduced funds allocated for testing and replacing tanks this year. Prospects for an all-out effort in 1982 are uncertain. Marketing management is still weighing how much priority to give a proposed $5.6-million capital program. It is fair to say that the momentum which was apparent when the five-year, $36-million program was announced in 1980 has been lost today.

The sheer number of tanks makes this a highly risky situation for ARCO if Marketing continues to drag its feet. Mounting public concern and awareness over the health and safety issues, coupled with the tank-age factor, make the situation even more precarious and potentially very costly.

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Current Incidents

As of July 9, 1981, Marketing faced 12 tank or pipe leaks across the country (mostly in California and Pennsylvania, both high-visibility areas). Estimated cleanup costs for these leaks total $550,000. This does not include any damage claims that may occur (see "Legal Aspects").

The thorniest problem at the moment is in Blakeslee, Pa., in the Pocono Mountains. A leak reported there in February 1980 has contaminated about a dozen private wells in the area. Some residents have claimed stomach disorders as a result of the water, and the state Department of Environmental Resources contends the water is unfit to drink because of a high benzene content. ARCO is cleaning up the spill, has agreed to provide bottled water and filters to those affected by the contamination, and may have to drill new wells for them. Cleanup costs alone are estimated at $150,000. The problem has received local media coverage but has not gained national attention.

Company Policy

Atlantic Richfield's Environmental Protection Policy says we will:

- Manage our operations with diligence and with an awareness that our goal is to protect the environment by employing the best control mechanisms, procedures and processes which are proven technically sound and economically feasible.

- Entrust each line manager with responsibility for the environmental performance of his or her activity.

- Consider the expense of environmental protection as a legitimate cost of doing business in modern society.

In a speech to the Company Environmental Seminar in 1979, Mr. Kieschnick stated:

"If the air and water quality regulations were the issues of the 70s, human health and toxicology will be the big issues of the 80s...We must have values. There can be no question that we want to act responsibly in matters of health and well-being of our employees, consumers and neighbors and to be in compliance with both the spirit and the substance of the law."

In outlining strategies, Mr. Kieschnick declared, "We must do our homework before we stumble into trouble rather than afterward."
Legislation/Regulation

This has not become a major legislative issue as yet, but many expect the more opportunistic politicians to seize on it at some point, particularly if the number of incidents proliferates and dangers and public outrage increase. EPA is attempting to develop groundwater standards (ARCO has participated in hearings and workshops on the subject). There are already some federal regulations covering spilled gasoline in navigable waters and some federal drinking water standards. There are also stringent federal regulations governing toxic substances and hazardous wastes. Legislation for some sort of petroleum superfund is in the works and is expected to pass in some form.

Some feel legislative reprisals could occur if industry does not respond on its own. It is difficult, however, to put a price tag on current or anticipated regulations.

Public Opinion

All of our public opinion survey data indicate continuing public support for environmental protection—even if the costs are passed on to consumers and regulations are required. Environmental protection seems to be the only area where the public feels the same degree (or more) regulation is needed. Survey data reflect growing public awareness and concern over health/safety issues, especially toxics and waste disposal.

Other Companies

Chevron expects to spend approximately $100 million by 1984 in a comprehensive program aimed at "eliminating all leak potential." Chevron expects to test all tanks and remove any potential problems, spending up to $50,000 for each affected station.

 Exxon is more than halfway through its leak prevention program, and Shell is well along in its program to replace all tanks with fiberglass.