

industry competition is still alive and that the public and the environment will probably benefit from this competition.

The contract is between the Interior Department and the American Gas Association. It calls for an expenditure of about \$300 million over the next eight years to develop a commercial process for making synthetic fuel gas from coal. To begin, two-thirds of the money will come from Interior (\$20 million in fiscal 1972) but the ratio could be changed toward a larger industry contribution if processes to be developed at three pilot plants look good. Gas is a virtually nonpolluting fuel for power plants and other uses. The coal gas is needed, says Morton, because of a growing shortage of natural gas.

But oil company statements have shown pessimism about commercial coal gasification before 1985 and have consistently suggested that higher natural gas prices would stimulate exploration and discovery of new gas fields. Even with the higher prices, natural gas would beat out coal gas in the marketplace, the companies claim. But coal advocates, including officials of Interior's Office of Coal Research, claim that if coal gas were commercially available today it would be highly competitive with natural gas in populous Eastern markets even at current prices.

Those who charge that monopoly control of energy sources is stifling competition—including a Ralph Nader team—claim coal, oil and gas company interests are virtually identical because of interlocks created by mergers. They claim also that oil company claims of natural gas shortages are really a "natural gas strike" aimed at artificially boosting prices. If the two assertions are both correct, it seems unlikely the large-scale coal gasification program would be getting under way.

On the other hand, there are many techniques other than coal gasification for using coal in nonpolluting ways, and these techniques are still getting short shrift.

For instance Hydrocarbon Research Co. and OCR have discussed building a pilot plant at OCR's existing Cresap, W.Va., facility to test HRC's H-coal process for liquefaction of coal into a low-sulfur fuel oil for power plants. The talks foundered when the Office of Management and Budget insisted on a one-third industry contribution to the project. The logical contributors, the oil companies, aren't interested, they have told officials. Asked about the Cresap project, Morton referred the question to OCR's George Fumich, who would only say negotiations are too "delicate" to discuss. □

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CHEMICAL ACCIDENTS

Fighting fire with a computer

A propane tank car exploded in Illinois several months ago, causing a train wreck of considerable proportions. Vinyl chloride burned rapidly producing a by-product that railway personnel believed was the dreaded mustard gas of World War I. About a thousand persons, whose homes were near the wreck were evacuated. Although the by-product of vinyl chloride turned out not to be mustard gas, and no lives were lost, the railroad ended up paying the town's citizens thousands of dollars to cover the inconvenience of the evacuation, rather than have these people bring suits against the railroad for negligence.

This is only one example of explosions and accidents that can take place while chemicals are being transported, usually by railroad. Deaths, illnesses, damage and public inconvenience might be prevented if railroad employees, fire departments and physicians arriving on the scene knew what to do. They usually do not because there is no communications center to call to find out exactly what chemicals have exploded, and what countermeasures should be taken.

In response to this need, the Railroad Systems and Management Association has devised information systems to help people know. The simplest is a pocket index to be carried by the man on the scene that lists over 200 chemicals and tells what first-aid measures to take for each and what not to do. For use in railroad control centers they have devised a manual that picks up where the index stops. It lists procedures to be followed from the time a carrier's control center receives word of an accident through clean-up of the area.

The manual gives several thousand names for some 400 chemicals. For each it estimates the severity of risk and the hazards to life. It details methods of fire control and waste disposal and it describes first-aid and medical supportive procedures for physicians on the scene.

With the help of the RCA Corp., the RSMA has developed a computer which would make all this information available through print-outs in four languages at various computer outlets around the country, or via special phones hooked up to the central computer bank. The index and manual are already being used by eight railroads, some fire departments and several industries other than railroads. Bringing the computer into use, RSMA officials believe, is a project for the U.S. Department of Transportation.

The computer was demonstrated be-



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It might have been mustard gas.

fore DOT officials last April, but RSMA spokesmen say that DOT has made no definitive response about financing implementation of the computer, possibly because the department is waiting for the passage of an appropriations bill to fatten the Federal Railroad Safety Act of last December.

Quentin Bank, assistant chief of hazardous materials at DOT, however, says DOT is hesitating about the computer for several reasons: Few large chemical companies have been willing to provide RSMA with information about their products. RSMA indicates it would like to run the computer system for DOT, but DOT is having trouble generally in delegating its authority to industry. Anyway "the idea is good," Bank says. "RSMA or somebody will eventually get the job to do."

In any event, Ted Leviton of RSMA, who demonstrated the index, manual and computer at the 23rd International Congress of Pure and Applied Chemistry, held in Boston last week, believes that waiting is a pity when millions of dollars and not a few lives are at stake.

The question is, will Government now pay the tab to make the chemical explosions communications computer available? Regardless of DOT action, Grant Cvietsch, president of RSMA, says another Government agency has promised to get the computer implementation going within six weeks. □

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