

largely can be controlled. But new regulations have been proposed that would go far beyond existing Federal Clean Air Act standards. If adopted, these regulations would wipe out just about all development of oil shale, or any other kind of industrial development in most parts of the Colorado/Utah/Wyoming area.

Economic Problems

In time — and with massive amounts of money — the technical and environmental problems associated with the mining and above-ground retorting of oil shale could be overcome.

Oil companies have committed hundreds of millions of dollars to obtain leases from the Federal government—monies that gave the companies just the right to develop the oil shale on the public lands leased. Since then, they've invested millions more in environmental and other studies, and in pilot plant testing.

One oil company official estimates that it will cost some \$1.17 billion (in 1976 dollars) to develop a plant to produce 100,000 barrels of shale oil a day; more than \$4 billion to develop a 300,000 barrels-a-day operation. Over the long term, one study indicates that more than \$15 billion will be required through 1990 to achieve a shale oil capacity of 1.5 million barrels a day. (That's less than 10 percent of current crude oil demand.)

An Uncertain Future

Technical, environmental and economic problems notwithstanding, many people in the oil business believe it's worthwhile to seek to develop oil shale. They know U. S. reserves of crude oil are declining and that the only alternative to development of U. S. energy resources — including oil shale — is even greater dependence on oil from the Organization of Petroleum Exporting Countries (OPEC)—some of whose members imposed the oil embargo back in 1973-1974.

But they also know that the U.S. Government holds nearly all of the most valuable oil shale lands and that oil companies must be given access to these lands if they are to develop the oil shale in any significant quantity. They also recognize that proposed government laws and regulations would make it even more difficult and costly to develop most of the oil shale.

And, over and above these practical deterrents, is this uncertain question: What happens if—after the companies invest the billions of dollars to overcome the problems associated with oil shale and to construct the oil-shale processing facilities—the OPEC cartel decides to undercut these efforts by dropping the price of their oil?

That's a billion dollar gamble some oil companies are still willing to take — if the Federal government doesn't load the dice against them.

Right now, however, because of proposals before Congress, the companies find themselves "between a rock and a hard place" in oil shale development. Meanwhile, our nation's energy situation continues to grow more serious.

Tar Sands

If you were to go backpacking through the lonely hills outside the little town of Vernal in northern Utah, you might stumble onto a two-acre tract of cleared land on which stands a strange collection of objects. Two tall oil storage tanks, three low buildings, a water-storage pond, some air compressors in carefully placed fashion on the dark sandstone plateau.

Curiosity prompts you to ask a man in jeans standing by the oil storage tank, "What's going on here?"

He replies, "We're finding oil!"

Oil? No familiar horsehead pump nodding up and down? No derricks? You look dubious.

"Yes, *oil!* The Department of Energy (DOE) and an oil company are working to get oil from the tar sands you're standing on. We have the first 50 barrels of oil from tar sands in these tanks here. There are 25 *billion* barrels more waiting in the Utah tar sands."

What Will It Cost?

Getting the first 50 barrels of oil from tar sands cost many thousands of dollars. If the cost can be brought down, this country may have found a useful alternate source of energy.