

to question the coal industry's claims that land which has been stripped can be satisfactorily reclaimed.

The moratorium would give soil scientists and agronomists more time to find out whether, after stripping, the original soil profile and other conditions can be reestablished well enough to permit an early return to the high yields of corn, soybeans, or other crops known in the past. During the last 2 months a broad consensus has developed within the Administration that this question should be answered before the stripping of prime agricultural lands is allowed to proceed unchecked, particularly inasmuch as by far the larger part of the nation's coal reserves is "deep minable."

Even before President Carter was inaugurated on 20 January, the staff at the

Council on Environmental Quality (CEQ) and some of the early Carter appointees, including Andrus and Schlesinger, are said to have already felt that there might be a need for the pending strip-mining bills to be strengthened to protect prime farmlands. Accordingly, once congressional hearings began on the bills, the CEQ staff initiated a moratorium proposal. Because nothing of the kind had been offered before, the Office of Management and Budget (OMB) decided that the proposal should be reviewed by an ad hoc interagency task force. OMB, CEQ, FEA, the Environmental Protection Agency, the Bureau of Mines (an Interior agency), the Soil Conservation Service, and the White House Domestic Council were all involved in this review.

Meanwhile, as this study was getting under way, Schlesinger, the President's top energy adviser, touched on the prime farmlands question in a letter to Representative Morris K. Udall (D-Ariz.), chairman of the House Committee on Interior and Insular Affairs. "Fortunately," he observed, "the great abundance of coal in this country allows us to declare certain areas off limits to strip-mining because of their greater value for competing purposes. Protection of alluvial valley floors in the west [where ranchers grow forage crops to tide their cattle over the winter] and prime agricultural land should be considered on the basis of the most valuable use of those lands to the nation. It is wise planning to utilize land that is more productive for agriculture for that purpose."

Briefing

Nazi Coal Conversion Methods Reviewed

An enthusiastic young history professor at Texas A & M University is undertaking a mammoth study of old German war documents in hopes of uncovering lost secrets about the conversion of coal into synthetic fuels.

Arnold Krammer is a 34-year-old professor of German history with a background in chemistry. About a year and a half ago, inspired by the energy crunch, he and a colleague, chemical engineering professor Richard Wainerdi, took a trip to the National Archives to look up documents captured by allied forces in a sweep through German petroleum plants in the closing days of World War II. Now, with the backing of the University's Center for Energy and Mineral Resources (CEMR) and money from a half dozen American companies, the search has blossomed into a 3-year project. The goal is to translate and abstract information from hundreds of thousands of documents, put it in a computer, and make it available to help America solve her energy problems. Most of the material relates to the conversion of lignite (brown coal) into petroleum and petroleum products.

Although there are those who doubt the worth of pawing through 30-year-old technical papers, Krammer is very high on the project and is convinced that there are gems that remain to be uncovered

among the dusty accumulations which he estimates may amount to over one million pieces of paper.

As he points out, Germany in large measure ran its war machine on synthetic fuel from its abundant lignite deposits. The scope of their effort dwarfs anything undertaken by any other nation, and he believes chances of uncovering more efficient ways to convert coal to oil are good.

The project is still in a very preliminary phase, and Krammer says all the depositories have not yet been located. The documents investigated so far include unsecured patents, plant blueprints, experiments on catalysts, methods for sulfur removal, fuel blending, and fuel transportation and storage as well as information on other ingenious wartime accommodations such as the making of sugar from sawdust.

Krammer is particularly interested in what the Germans knew about catalysts—metal oxides that speed the chemical reactions that bind carbon monoxide and hydrogen together to produce oil molecules. Nothing of note has turned up so far, but Krammer is optimistic. After all, he says, Nazis apparently possessed advanced knowledge in another area, namely electricity storage. German trucks found in the North African desert decades after Rommel's crusade were found to have batteries that, amazingly, still worked.

Krammer says the CEMR pooh-poohed the idea at first, but kicked in a few hundred dollars for the trip to the Na-

tional Archives. Subsequently, American oil companies were contacted, and five companies—Dow Chemical, General Motors, Diamond Shamrock, Union Carbide, and Texas Utilities—have contributed \$289,000 to the venture. Translators are now being hired to cull through the documents, reduce them to abstracts, code them, and put them in an Energy Resources and Development Administration computer at Oak Ridge National Laboratory. Although the computer time is being donated, Krammer says he doesn't seek government money because those on the project don't want to bother with the government meddling and paperwork that go with it.

Krammer says the university ultimately hopes to establish a "coal conversion library"—particularly fitting for Texas, which has an estimated 110 billion tons of lignite.

Another facet of the project is the establishment of an "oral history library." Krammer and colleagues have been digging up German scientists who were brought to the United States after the war through Operation Paperclip (the project that collected rocket scientist Wernher von Braun). So far 12 of these scientists have been located and interviewed, as have a number of the technical team that conducted the sweep through the German factories.

The head of that team was Wilburn Schroeder, now professor of chemical engineering at the University of Maryland. Schroeder was with a 150-man group that followed the conquering ar-

As it turned out, the task force report on the moratorium question was a loosely constructed and ambiguous document which one could cite either for or against a moratorium. It pointed out that soil scientists and agronomists at the University of Illinois and elsewhere are only now beginning the experiments needed to determine whether prime croplands can be returned to full productivity after stripping and reclamation. But, at the same time, it seemed to argue that, even if reclamation proved a failure, the effect on the nation's overall agricultural productivity would be inconsequential.

Not surprisingly, a copy of this report has found its way into the hands of the people at the National Coal Association, and they are making hay with it. Yet, once the report's findings were evaluated

by representatives of all of the agencies involved in the review, it was unanimously agreed that a moratorium should be mandated.

So, whatever the fate of the proposed moratorium in Congress (the fierce industry opposition to it indicates that it will have tough going), Secretary Andrus and his department will not have to worry about flanking attacks from other federal agencies, at least not on this issue.

As for the promise Andrus has made to centralize all of the policy-making for his sprawling bureaucratic organization (Interior has more than 60,000 employees and contains more than a dozen distinct agencies), eventually he may find that he cannot deliver, but he seems determined now to make a brave try. For

instance, he is attempting to weld his staff and that of his undersecretary, James A. Joseph (the first black ever to serve in this job), into a single, tightly integrated administrative unit. As the deputy undersecretary, Barbara Heller, 28, who has been an environmental activist specializing in outer continental shelf (OCS) oil and gas leasing and development, will be reporting directly to Andrus as well as to Joseph on OCS issues.

The several assistant secretaries responsible for Interior's operating agencies—the BLM, the Geological Survey, the Fish and Wildlife Service, the National Park Service, and so on—are being told to participate directly and forcefully in shaping and carrying out the policies of those agencies and not serve merely as an intermediate link in the

Briefing

mies through all the German synthetic fuel plants and some research laboratories. He is dubious about the value of the Texas venture because he says the cream of the material was translated and sent back and examined—reports known as the Technical Oil Mission reports. He says the German technique for coal hydrogenation was “uneconomic” and, he adds, “I sort of doubt if there is too much to be gained by extensive review of this older technology.”

The Germans would probably agree. Kurt Irgolic, chief chemist at CEMR, says that Germans made no effort to resuscitate their synthetic fuels technology after the war when petroleum became plentiful. And even now, he says, South Africa is the only country involved in the large-scale processing of synthetic fuels.

Nonetheless, the people at Texas A & M think the economics of the present energy situation call for another look at the German effort. Krammer recollects Santayana to the effect that “those who do not study the past are doomed to repeat it.”—C.H.

Mexican Heroin Flow Continues Unabated

A congressional committee has returned from an inspection tour of the Mexican-American border to report that the flow of narcotics into the United States is almost entirely out of control

despite programs to eradicate opium crops and strenuous enforcement efforts by U.S. officialdom.

Said Representative Lester Wolff (D-N.Y.), chairman of the House Select Committee on Narcotics Abuse and Control: “The problem looks almost insurmountable—the future does look very bleak.” He likened the 2000 mile Mexican-American border to a “Maginot Line that is being outflanked, outflown and infiltrated” by people toting in 5 to 6 tons of heroin a year. He said the “shooting” was just as bad as in a war, and that the casualties—an estimated 5000 deaths a year from heroin overdoses—“are unacceptable.”

Eradication of opium grown illegally on Mexican government land has stamped out 80 percent of the crops, the committee members said; nonetheless, the remaining 20 percent is filling 80 percent of America's addiction needs. Only 10 percent of such traffic is being interdicted, and one in three of those smugglers who are convicted are let loose again on probation.

The committee members complained that there is no coordination among responsible U.S. agencies, and intelligence activities are the responsibility of “everybody and nobody.” The burden is being carried by the Drug Enforcement Administration, the U.S. Customs Service, and the Immigration and Naturalization Service. However, the group said, their efforts are doomed so long as there continues to be no cooperation from the Federal Bureau of Investigation, the Central In-

telligence Agency, and the Internal Revenue Service. (Customs commissioner Vernon D. Acree noted that the narcotics trade is “the greatest untaxed industry in the world.”)

The committee members also made it clear that they felt the Mexican government was not putting itself out to help stem the problem. A joint commission of the two governments set up last year already seems to have evaporated, said Wolff. The congressmen noted that this country is fighting apathy not only in Mexico but worldwide, where, according to the United Nations Commission on Narcotics, it is supporting 80 percent of the drug control effort. (The Soviet Union, added one congressman, is supplying “not one red cent.”)

The Mexican heroin problem has been with us for some years now, and has received less publicity than it might have because of the low priority that drug abuse has held in the last two Administrations.

More attention may be expected under President Carter who has vouchsafed his concern through the creation of two new high-level positions. Carter now has a White House adviser on mental health and drug abuse, Peter Bourne, a psychiatrist who is an expert on international drug trafficking. And there is new interest at top levels of the State Department as evidenced by the appointment of Mathea Falco, a lawyer formerly with the Drug Abuse Council, who is now Secretary of State Cyrus Vance's senior adviser on international narcotics matters.—C.H.