take opposing sides on the defendant's mental health is a growing problem, according to several attorneys. John Wright, a DOMH psychiatrist, states in the report that "courts are presented too often with the perplexity of defense and prosecution witnesses giving opposite interpretations of the same agreed-upon facts, symptoms, and observations. Who should be believed? The psychiatrist who uses the most scientific language? Who uses the least? Who looks and

sounds most like a psychiatrist?" According to many lawyers and psychiatrists, such conflict is caused by disagreement within the psychiatric profession. In one case, well known in judicial circles, a psychiatrist from St. Eliza-

Briefing.

Like Bank Robbers, Criminal Polluters Will Be Prosecuted

Where violations of pollution control laws involve criminal behavior such as surreptitious dumping of toxic substances or false reporting to the Environmental Protection Agency, the Department of Justice will react with the "same seriousness with which it must approach enforcement of the tax laws or the laws against bank robbers." So says the assistant attorney general for the department's land and natural resources division, James W. Moorman, who is one of the numerous practitioners of public interest law brought into the government by President Jimmy Carter.

Moorman, formerly head of the Sierra Club's Legal Defense Fund, is convinced that for the middle-class, white-collar professional or business person, the threat of prosecution is a more powerful deterrent to criminal conduct than it is for the hoodlum on the street. "Many of those who have chosen to violate or who will be tempted to violate the pollution control laws are professional and business people," Moorman said recently at an environmental law course in Washington sponsored by the American Law Institute and the American Bar Association. "These are people for whom an indictment alone, not to mention conviction or imprisonment, can be a catastrophe."

According to Moorman, the task of pollution control is so huge that it cannot be accomplished unless all actual or potential polluters accept responsibility for selfpolicing, just as taxpayers must accept responsibility for faithful compliance with the income tax laws. "It is illusory," he said, "to believe that the government can check every tax return or the effluent coming out of every pipe." The number of industrial and municipal discharges subject to regulation under the clean air and clean water acts runs into the tens of thousands, and a large but unknown number of them are not in compliance with abatement plans or discharge permits, Moorman noted.

Although billions upon billions of dollars are being committed to a vast and commendable pollution control effort, many companies and municipalities "have not been good soldiers," he said. "There is still substantial resistance to compliance in some quarters." For those merely engaged in "foot dragging," as in trying to throw up legal smoke screens for failures to meet compliance deadlines, the Department of Justice will seek civil remedies in the form of injunctions and fines.

But for those who perpetrate "willful, substantial violations . . . of a criminal nature," the department already has begun asking for grand jury investigations and indictments, Moorman said. There was, for instance, the recent prosecution and conviction of the sewer system manager and the Sanitation Commission in Little Rock, Arkansas, for false reporting. A successful criminal prosecution was also mounted in a case involving Tuck Industries in New York and its discharge of wastes that had not been reported at all.

"If properly enforced, [the pollution control laws] can be both a sword and a shield," declared Moorman, winding up his talk with a flourish. "A shield to protect society; a sword to chasten those who would bring misery on society. I want all to know and none to doubt that the Department of Justice intends to enforce those laws through criminal prosecutions."

Trouble Even in New Mexico for Nuclear Waste Disposal

The Department of Energy's troubled search for potential sites for the deep geologic disposal of nuclear wastes now seems to have run into serious political trouble even in New Mexico, which along with Nevada and Washington has been regarded by DOE as its ace in the hole (*Science*, 23 September 1977).

At a recent meeting with the New Mexico congressional delegation, Secretary James Schlesinger promised that the state would have the right to veto any DOE plan to establish a pilot waste-disposal facility within its borders. After the meeting, Senator Pete Domenici (R–N.M.) reported that the secretary had said that the state could, by whatever method of review its legislature should establish, say "yes or no [to] future nuclear [waste] projects."

Similar assurances have been given by federal energy officials to state officials across the country before; but Schlesinger's specific commitment to New Mexico was made under coercive circumstances. For, had the secretary refused to make this commitment, there was every likelihood that New Mexico the state where DOE's efforts to identify a suitable disposal site are furthest advanced—would have reacted stormily and told DOE that any disposal facility would be unwelcome.

In Michigan last year Governor William Milliken went so far as to tell the Energy Research and Development Administration (ERDA), DOE's predecessor agency, that no exploration for geologic disposal sites for "commercial" wastes from nuclear power plants should be conducted in his state. In Louisiana, the legislature forbade the establishment of commercial waste repositories in any salt domes in the state, and, although it did not try to make ERDA stop its field studies, it left little hope of a change in the state's attitude.

The New Mexico legislature has made no effort as yet to try to stop DOE from proceeding with its plans for a Waste Isolation Pilot Plant (WIPP) near Carlsbad where some "military" wastes from the nuclear weapons program might be received. But the intense debate that arose in the state House of Representatives in January over whether to put this issue to the voters in November could well have been interpreted by Schlesinger and others at DOE as an ominous straw in the wind.

This ballot proposal, sponsored by the Democratic majority leader in the form of a constitutional amendment, came within three votes of receiving House approval. Furthermore, polls conducted by the Albuquerque *News* and the Bureau of Business Research at the University of beths Hospital in Washington, D.C., testified in court on a Friday afternoon that a person with a sociopathic personality was not suffering from a mental disease. On Monday morning, as a result of policy change at the hospital, administrators determined that a state of psychopathic or sociopathic personality did constitute a mental disease.

In addition, there is a growing concern that psychiatrists may be unable to tell when a defendant acquitted for reasons of insanity should be released from an institution—in other words, may be unable to predict whether the defendant is still dangerous to society. According to Wright, for example, "No matter how careful the procedures, observations,

Briefing

New Mexico have indicated that, if the question of whether a waste repository should be built in the state ever be put to the voters, the answer is likely to be no.

How has this situation come to pass in New Mexico, which, like Nevada and Washington, has had so long and intimate a familarity with the atom? Alamogordo was of course the site of the first atomic bomb explosion, and the Los Alamos and Sandia weapons laboratories are among the state's economic mainstays.

In part, the New Mexicans' hardening attitude about waste repositories may merely reflect the squeamishness that most people, wherever they live, seem to feel about radioactive wastes. Aside from this, however, there is also the fact that ERDA and DOE officials, who have a knack for making politically maladroit moves when it comes to waste management, have given plenty of ammunition to New Mexico environmentalists and have made skeptics even among their friends in the New Mexico congressional delegation.

New Mexico's two Republican senators, Pete Domenici and Harrison Schmitt, last fall found much ambiguity in DOE's plans for the WIPP project. At first, the WIPP had been intended as a pilot repository for low and intermediate level military wastes. Any radiologically and thermally hot "high level" wastes received would be used only for experimental or demonstration purposes.

But. then, late last summer, it began to appear that something much more ambitious was in the wind. Agency officials were now saying that ERDA (soon to be DOE) was "considering" having the WIPP licensed by the Nuclear Regulatory Commission (NRC) as a high level waste repository. In November Senator Domenici received a letter from a DOE official to that effect, only to discover later that 4 days before this letter was dispatched the same official had informed the NRC that the scope of the WIPP design was being expanded to accommodate high level wastes and that DOE definitely planned to have the facility licensed accordingly.

Meanwhile, environmentalists in New

Mexico, with leaders of a Sante Fe group known as the Clearinghouse for Environmental Action in the forefront, were intensifying their efforts to block both the WIPP project and plans by Chem-Nuclear, Inc., to establish a burial ground for commercial low level wastes near Cimarron in the northeast part of the state. The level of citizen concern about the waste issue was rising rapidly.

Reflecting this concern, Senator Schmitt has observed that New Mexico, "the Land of Enchantment," would not like to become known.as the "Nuclear Garbage Dump state." As matters stand today, New Mexico has not closed its mind to clear waste repositories, but the DOE clearly has a tough selling job to do.

United States and Bulgaria to Cooperate in Research

Détente and the Soviet Union's apparent desire to have the communist countries of Eastern Europe reach out to the United States to strengthen themselves in science and technology have led to another agreement for cooperative research activities in these fields. The latest one is between the United States and the People's Republic of Bulgaria and is part of an "umbrella" agreement calling for exchanges between the two countries over the next 5 years in cultural, scientific, technological, educational, and other fields.

Nacho Papazov, chairman of the Bulgarian State Committee for Science and Technical Progress, signed the scientific and technological cooperation agreement for his country at a ceremony held at the National Science Foundation (NSF) on 9 February. Richard C. Atkinson, the director of NSF, signed for the United States.

Papazov said that Bulgaria was most interested in working out cooperative research projects having to do with computer programming, chemical catalysts, seismology, and agriculture. As for the United States, Atkinson said that it would be particularly interested in projects related to agriculture, electronic microprocessors, computer science, and chemistry. But, except for those fields in which NSF has no authority to sponsor research (namely clinical medicine, business administration, and education), proposals will also be entertained for research in other fields.

Cooperative research projects are to be sponsored in the following way. After developing plans for a project through discussions with his Bulgarian colleagues, an American scientist will submit a proposal under which NSF would pay for his or her research and foreign travel and for the expenses incurred by the Bulgarian scientists while in this country. Simultaneously, the Bulgarians participating in the project would submit a similar proposal to the Bulgarian State Committee for Scientific and Technical Progress.

The two countries are to share the cost of the research projects on a 50-50 basis. Once the program is well under way, NSF expects to be spending a few hundred thousand dollars a year in support of the projects.

The United States now has cooperative research programs with all of the Eastern European countries except East Germany and Czechoslovakia, and negotiations looking to such a program are currently under way with the Czechs.

According to NSF sources, the programs have generally been quite fruitful. For instance, scientists at the Unversity of Akron and Hungary's Research Institute of Chemistry have developed some patentable chemical processes.

The cooperative program with Rumania, undertaken under a 1973 agreement that expires this September, is said to have made a good start but began to suffer about a year ago from a serious breakdown in communications. No new projects have been started since that time. The root of the difficulty, which may prove to be only temporary, is believed to lie in a reordering of research priorities by the Rumanian National Council for Science and Technology in keeping with the national objective of fostering economic growth.

Luther J. Carter