saying that what was needed was a bomb out here so that you could start all over again."

While morale is good or not so bad in many other laboratories, in some it is rather worse. The committee chaired by Glenn S. Pound, the report of which has been discussed in previous articles (*Science*, 5 Jan., 27 April, 4 and 18 May), chanced upon one large ARS laboratory where scientists reported that mail was censored, telephone conversations monitored, and the staff on the verge of mutiny. The director of the laboratory reportedly 'intends to rule this laboratory by calculated intimidation' and he was said to operate 'by threatening people with reassignment to more unpleasant jobs, demotion, abolition of their jobs, and dismissal. Nothing riles him as much as basic research and professional recognition.' Pound says that this laboratory was not unique. His committee learned of other laboratories where there was a "question whether the administrators had the kind of philosophy that would provide the atmosphere for an unfettered quest for truth." Other sources have said that the laboratories in question are the four utilization laboratories, which, after Beltsville, are among the largest of the ARS's installations. (It may be significant that the work on utilization has not been considered a very successful effort in total.)

Steps have been taken to assist the director of the laboratory that horrified the Pound committee, and morale at Beltsville has improved since last year's reorganization. Talcott W. Edminster, administrator of ARS since July 1972, says that he has never sensed a division between scientists and administrators in ARS. Asked if scientists are concerned about their status in the ARS, Edminster says that "If they were, they would leave. I have talked with 2000 of our scientists in the last few months and I think most of them are pretty happy."

Unlike SAES scientists, many of whom are located on campus and hold dual appointments with the university, ARS scientists are relatively isolated from academic life. Many ARS stations are located off campus. The agency performed only 3 percent of its research work extramurally last year and hired the services of only ten outside consultants. University scientists, in turn, have often made their agricultural colleagues feel like poor cousins

Briefing

U.S.-Soviet Pacts Threatened by Scientists

All may not be smooth sailing for the spate of United States-Soviet Union science agreements concluded by President Nixon and his emissaries in Moscow last May. The opposition is coming from an unlikely source—the scientists themselves.

A petition, signed by 150 government scientists at NIH, declares that the signers welcome the new exchanges, but that their "readiness, personal and professional," to "welcome" the Soviet scientists here is "impaired" by the authorities' treatment of scientists in that country. One of the originators of the petition, Jack Cohen of NIH, says that its careful wording implies a veiled threat of noncooperation with the agreements. He says that he has heard of individual scientists who already have declined to participate because of the Soviet government's actions.

The petition and reports of noncooperation are the first sign of a chill in the warming relations between the two countries in the fields of health and science (*Science*, 6 April). Cohen and other organizers on behalf of Jewish scientists in Russia say that, despite such apparent relaxations as the ending of the government education tax on educated persons who try to emigrate to Israel, harassment of Russian Jewish scientists continues.

The most prominent example of this continued harassment, according to reliable sources, is the mistreatment of the family of Benjamin V. Levich, one of the most prominent Soviet scientists to try to go to Israel, who has already lost his job as a result. On 16 May, Levich's 25-year-old son Yevgeny apparently was abducted from a Moscow sidewalk and forced into a car; his family eventually learned that he had been inducted into the army and stationed in the Zabikal military district near Mongolia. In the past he has been deferred from the Army because of poor health: sources close to the family believe the authorities, by drafting the son, will have an excuse to keep the whole family in the Soviet Union. Levich himself has recently been threatened with dismissal from his post as a corresponding member of the Soviet Academy of Sciences.

The extent to which the Levich case and others are generating resentment among sympathetic American scientists cannot be ascertained. However, the NIH petition was signed by three Nobel laureates: Christian B. Anfinsen, Julius Axelrod, and Marshall Nirenberg. It is now being circulated elsewhere.

The authors of the petition, who addressed it to the President, have had no reply from Administration officials charged with implementing the agreements in health and science. It remains to be seen, then, how sensitive these officials are to the Jewish protest, and hence, whether the accords themselves will reflect the actual wishes and feelings of the scientists who are supposed to be benefiting from them.—D.S.

AEC Shakes Up Nuclear Safety Research

A long and often bitter internal conflict over the management of nuclear safety research appears to be heading toward resolution within the Atomic Energy Commission. A major staff shake-up announced on 15 May by AEC chairman Dixy Lee Ray promises to give safety research new prominence and independence in the AEC hierarchy, a move advocated by a number of safety researchers themselves and rejected last year by Ray's predecessor as chairman, James Schlesinger.

The reorganization of safety research is reported to have provoked some angry protests from key staff members in AEC headquarters at Germantown, Maryland, and it also sparked a brief power struggle between the commission and the congressional Joint Committee on Atomic Energy (JCAE). But it appears now that tempers have cooled, and Ray is said to have emerged victorious from a closed-door grilling on the matter before the JCAE. The incident suggests that Ray is firmly in control of the AEC and capable of leading it on an independent course. There are

at the academic table, and for this reason, some say, have accorded them relatively few academic honors. Does the ARS lack its fair share of outstanding researchers, as the Pound committee suggests? "I would like to see this as unmerited," says Irving, "but if I were to make a case against it, there is not a great deal of evidence I could find. One measure is the number of people anointed by the National Academy of Sciences. If you compare the ARS with the numbers that come from M.I.T. or Illinois, it makes agricultural research look pretty puny."

Academic merit, the criterion by which the Pound committee measured the USDA-SAES system, is in some ways an unfair yardstick. Unlike universities, the system is not designed to produce Nobel Prize winners, although this it does do. It is designed to solve seemingly pedestrian but economically important problems in response to the needs of its clients, which is why much of the direction comes from the grass roots rather than the top. Such apparatus for directing research policy as is visible to the outside observer appears, on closer inspection, to play a largely ceremonial role.

The principal reef on which research planning founders is the jealously guarded autonomy of the 53 state stations. The SAES directors supposedly plan research through their own organization, the Experiment Station Committee on Organization and Policy (ESCOP). In practice, ESCOP is chiefly a lobbying organization with little effective influence on individual state policies. It collects and coordinates the directors' wish list but has no power to tell the directors what to do.

A similar degree of impotence characterizes the other body supposed to coordinate state research, the Cooperative State Research Service (CSRS). The CSRS, an agency of the USDA, is charged with disbursing federal funds to the state stations and with reviewing the projects the states propose to undertake with the funds. To this end, the CSRS has a staff of 111 and an administrative budget of $2.3 million. The teeth of the review process, however, have been drawn by the station directors. Few proposals are rejected. Some are deferred but, according to an internal CSRS report,*

* J. J. Endean, "CSRS administrative procedures: An outsider's appraisal," mimeographed (16 August 1971).

Briefing

also signs that the committee's domineering leadership has begun to lose its grasp on junior members, some of whom openly sided with Ray.

For over 2 years, citizens' groups and researchers in the national laboratories have complained that major uncertainties in the ability of nuclear power plants to control accidents have gone unattended, while research projects meant to settle these questions have taken a backseat to the AEC's star enterprise, the nuclear breeder program. The reorganization seeks to solve this difficulty by removing safety research on conventional, light-water reactors from the AEC's huge Division of Reactor Development and Technology (RDT) and placing it in a new division by itself, answering directly to the AEC's general manager, Robert Hollingsworth. The effect is to elevate safety research by one step on the commission's bureaucratic ladder and to remove it from direct competition for funds and attention with the breeder.

In announcing the reorganization, Ray said the commission was seeking "greater emphasis and effectiveness" in safety research programs in order to "speed resolution of the still-unanswered questions in this rapidly developing technology."

Within the commission staff and the AEC's laboratories, reactions to the shake-up ranged from cautious praise from long-time critics to raised hackles among the RDT leadership. One former safety research administrator at the National Reactor Testing Station in Idaho called the move "one big step in the right direction," while the *Weekly Energy Report*, a Washington newsletter, said that Milton Shaw, the RDT's powerful and controversial director, had briefly considered resigning in protest. Shaw has been the main target of critics, both inside the laboratories and out, who have heaped on him much of the blame for long delays and huge cost overruns suffered by key safety research projects. Shaw will remain in charge of the breeder program.

Within the JCAE, Representative Chet Holifield reportedly was enraged that three AEC commissioners—Ray, William O. Doub, and Clarence Larson—apparently drew up the reorganization plan without fully consulting with commissioner James Ramey or the JCAE. (A fifth seat is vacant. To fill it, President Nixon has nominated William E. Kriegsman, 41, a former staff assistant on energy affairs with the White House Domestic Council.) A California Democrat, Holifield has more clout than anyone else in Congress in matters of nuclear energy, and he has been an important source of political strength to both Ramey and Shaw. Sources said that Ramey was the only commissioner who opposed the reshuffle. It is worth noting that his term expires on 30 June, and that, as a Democrat, Ramey's chances of reappointment are regarded as slim.

Whether bureaucratic surgery will solve the safety program's problems remains an open question. Details—such as whether Shaw or the head of the new safety division will exercise control over operation and construction of the program's test reactors—are still to be worked out. The AEC's choice of safety director, however, seems calculated to mollify critics. He is Herbert J. C. Kouts, a senior staff member of Brookhaven National Laboratory and a member from 1962 to 1966 of the AEC's Advisory Committee on Reactor Safety, a group which, since 1969, has publicly and sharply criticized the laggard pace of safety research under Shaw. One acquaintance, an Idaho researcher with intimate knowledge of the long tribulations of safety research, says he thinks Kouts "has the right credentials, the right frame of mind" to revitalize the program.—R.G.

Milton Shaw