data to apply for a "permanent" registration. To anticipate all the problems that might arise, EPA convened a special review conference in Atlanta in June. The final report,* now in press, was to represent the consensus of experts from the scientific and industrial communities, state and federal officials, and environmentalists.

During the conference, it became clear that Mississippi's point of view might not prevail. Ueltschey recalls that "Out of that symposium came a suggestion from EPA that we ask for an emergency use permit rather than a conditional label." Why? "EPA said we'd be in better shape to ask for that than to push for the conditional." He declines to name the officials who made the recommendation.

Thus, before EPA had ruled on the conditional application, Mississippi filed in August for an emergency exemption under Section 18 of FIFRA to allow the use of Ferriamicide. On 29 September, EPA granted the emergency exemption in a telegram signed by John Todhunter, assistant administrator for pesticides and toxic substances. Arkansas and Texas received identical emergency waivers, all of which expire on 30 June 1983.

Neither Todhunter nor the director of pesticide programs, Edwin Johnson, could be reached for comment. Johnson's staff assistant, James Roelofs, told *Science* that EPA does not try to decide whether or not an emergency is genuine if a state says one exists. That assertion is generally taken at face value. EPA limits its review to technical issues: the extent of hazard posed by the use of a product and the availability of alternatives. Roelofs was asked why EPA overruled in-house objections to the use of Ferriamicide. He answered that the staff's concerns were amply reflected in the restrictions on its use in Todhunter's telegram, the "tightest ever imposed," he said, on a Section 18 exemption.

What is the nature of the emergency? In short, Ueltschey says, "There are more ants." This means "more emergency trips to the health authorities," more broken farm equipment, and greater economic losses. He mentions a survey taken in 1980, showing that since Mirex use was stopped in 1978, the number of anthills at selected sites had grown by 3 to 1000 percent. As for alternative pesticides, Ueltschey says they are all 10 to 20 times more expensive than Ferriamicide and more difficult to apply. Because of their cost, they are not really available to Mississippi, he says.

However strong the economic argument may seem in Mississippi, it has not impressed outside observers. The draft executive summary of the proceedings in Atlanta notes: "Data concerning the agricultural impact of the IFA [imported fire ant] do not support a conclusion of its being an economic pest, although reports indicate livestock losses from IFA stings." It also mentions, in the ant's favor, that it is a predator of pests that attack cotton, soybeans, sugarcane, beets, and potatoes. Its greatest fault, the study notes, may be its sting, a hazard to allergic humans.

Turning to the options for treatment, the summary notes that Mirex is not the only chemical available:

> Ten insecticides are currently registered for IFA control by broadcast application on non-agricultural crops, for mound treatment, and for treatment of nursery stock; several have conditional registration or have registration pending. In addition, five insect growth regulators are being developed for possible use as IFA control agents.

One of the symposium panels examined the options in detail and concluded that the cost of using American Cyanamid's rapidly degradable poison, Amdro, might be as low as $5 an acre if applied over a wide area. Using Ferriamicide would cost about $2.50 an acre under similar conditions, the panel concluded. If correct, Amdro might cost double, not ten times the price of the state-manufactured product. This issue is difficult to analyze because the state plays such a large role in determining price.

EPA's handling of the matter has roused the old enemies of Mirex: the National Audubon Society, the Environmental Defense Fund, the National Wildlife Federation, and the Sierra Club. They brought the suit against EPA that resulted in the temporary restraining order. In Congress, they have gained the sympathy of, among others, Representative George Brown (D–Calif.), chairman of the House agriculture subcommittee on operations, research, and foreign agriculture. He called the EPA decision "a classic example of how government actions dictated by political pressure can make a mockery of scientific principles and commonsense."

Brown's staff on the subcommittee has begun a broad investigation of the possible overuse of Section 18 waivers for hazardous pesticides. The number of state emergency applications has grown from 282 in 1979 to 749 in 1982. As subcommittee staffer Charles Benbrook says, "It's beginning to look like a national emergency."—ELIOT MARSHALL

**Proceedings of the Symposium on the Imported Fire Ant*, sponsored by EPA and USDA, Atlanta, Georgia, 7–10 June 1982.

IOM Votes Statement Against Nuclear War

The Institute of Medicine (IOM) has joined the ranks of physicians and scientists who have issued proclamations against the use of nuclear weapons. At its annual fall meeting in Washington, D.C., IOM members called for a halt to the "continued build-up of nuclear arms" and urged a "mutually verifiable" agreement between the United States and the Soviet Union to stop the arms race.

"Nuclear war is the single event that could terminate all our efforts to improve the human condition," the IOM statement says. "That possibility seems particularly ironic at a time when great strides are being made in alleviating human ills, and even greater advances are in prospect. A nuclear war would instantly kill tens of millions of people . . . ," it continued, adding that no civil defense programs proposed so far would do much to protect war's victims.

—BARBARA J. CULLITON

NIOSH Backs Down on Portsmouth Study

The National Institute for Occupational Safety and Health (NIOSH) has withdrawn its proposal for a cytogenetic study of nuclear workers at the U.S. Navy's shipyard in Portsmouth, New Hampshire. A highly critical review of the NIOSH protocol by a committee of the National Academy of Sciences (NAS) apparently quashed any possibility that the Navy would agree to let NIOSH study the Portsmouth workers (*Science*, 29 October, p. 454).

In a letter to Vice Admiral E. B. Fowler, Philip J. Landrigan of NIOSH said, "We still sincerely believe the conduct of the proposed study would have generated occupational health data important to the [Portsmouth] workers, and other workers in similar occupations. However, since [the NAS] position clearly would not convince you that we should proceed . . . , we will therefore not pursue this effort. . . ." From the start, the Navy has opposed the study.

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Despite the NAS committee's view that the proposed study of the effects of low-level radiation on chromosomes and sperm would not be scientifically or medically useful, NIOSH holds to its opinion that the workers should be evaluated and informed of the results. ". . . [I]f it is to be assumed that low dose radiation causes chromosomal breakage [the NAS agrees that it does] workers need to be informed about the potential for genetic damage, although the significance of this damage is unknown," Landrigan wrote.—**Barbara J. Culliton**

Remembering the Bomb, 40 Years After

The impending 40th anniversary of the first artificially induced nuclear chain reaction has prompted unusual efforts to mark the event, commonly regarded as signifying the birth of the nuclear age.

Both the University of Chicago, where the first chain reaction occurred, and the American Nuclear Society (ANS) will hold symposiums memorializing the event. The ANS, which has scheduled the symposium for its winter meeting, is also sponsoring a gathering billed as a reunion of the alumni of the Manhattan Project, the code name for the World War II atom bomb project.

The ANS sessions will be held in Washington, D.C., on 16 November. Scheduled speakers at the symposium include Eugene Wigner, who was present at the first chain reaction; Isador I. Rabi; and General Kenneth D. Nichols, who in 1942 was an assistant to General Leslie R. Groves, the military head of the bomb project. The reunion following the symposium is for individuals who were actively involved in the project.

The University of Chicago symposium is scheduled for 1½ days on 1 and 2 December. The first chain reaction was achieved on 2 December 1942 by the group working under physicist Enrico Fermi with the famous pile under the university's Stagg Field stands. The symposium includes sessions on the scientific and political history surrounding the event, which Wigner will chair, and discussions of nuclear power, nuclear arms, and the contributions of nuclear science to physics and medicine.

Choice of a 40th anniversary for a major effort is somewhat rare, but one of the organizers of the ANS reunion said that in view of the ages of many of the key people involved, "we decided to do it now."—**John Walsh**

The End of an Accelerator Named Isabelle

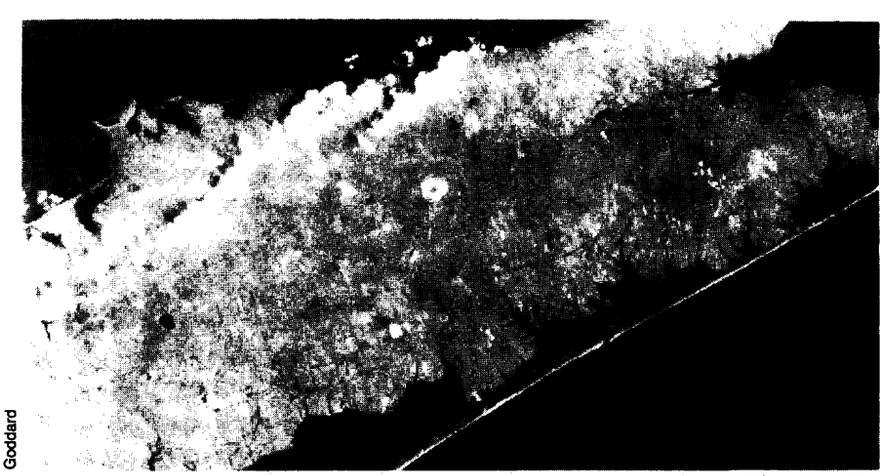
Troubled accelerators don't die, they just get a new name. That at least is the case with Isabelle, a half-built particle accelerator at the Brookhaven National Laboratory on Long Island that has fallen behind schedule and nearly doubled in price because of inflation and a history of problems with the construction of its superconducting magnets.

The christening was quietly alluded to in the pages of the *Brookhaven Bulletin*, which said in its 15 October issue that Isabelle in the future will be known as the Colliding Beam Accelerator (CBA), a name that unfortunately leaves little room for the fancy of headline writers (Perils of Isabelle, and so forth). Said the editor of the *Bulletin* in an announcement remarkable for its brevity: "The original plans for this accelerator are now under review and may be modified. Thus, the generic term CBA has been substituted for the familiar term Isabelle, which denotes a very specific instrument."

On paper the fate of the machine is up in the air, but at the huge construction site on Long Island work is speeding ahead. A production magnet that successfully meets design goals was recently installed in the machine's 2.5-mile circular tunnel, a high-water mark that comes after 2 years of quickened research aimed at removing flaws from the original magnet design. Laboratory officials say seven other magnets will be installed by the spring of 1983, at which time engineers will test how well the superconducting magnets work in unison. The machine's original design calls for 1100 magnets, each weighing nearly 8 tons.

The Administration cut all construction money for the accelerator in fiscal year 1983, but the continuing resolution that now funds the government may allow continued spending at the $15-million level set during the previous fiscal year. (That level, down from a request of $50 million, itself reflected tight budgets and worry about the soundness of the machine.)

In Congress, a move is afoot to fund the latest incarnation of Isabelle after the continuing resolution runs out. The House Appropriations Committee on 21 September approved a bill containing $5 million in construction funds for the troubled accelerator. The bill has not passed the House, and whether the Senate will go along with the initiative has yet to be seen. In any event, the $5 million would be mostly symbolic. This spring a Department of Energy estimate put the accelerator's minimum total cost at $640 million. So far the dollars paid out for construction and research have run to about one quarter of the total expected expenditure.—**William J. Broad**



Goddard

Long Island and the accelerator ring as seen from space by Landsat 4