Batavia: Accelerating People as Well as Particles

"In any conflict between technical expediency and human rights we shall stand firmly on the side of human rights."—from a Policy Statement on Human Rights by the National Accelerator Laboratory.

Batavia, Illinois. Construction of the giant new proton accelerator out here on the Illinois prairies, some 30 miles west of Chicago, is proceeding better than anyone dared hope. An article in last week's issue of *Science* described how the National Accelerator Laboratory expects to commence experiments a full year ahead of schedule at more than twice the energy originally contemplated. Thus the engineering side of the project must be judged a surprising success.

Equally impressive has been the progress made toward solving social problems. Just 3 years ago the laboratory, through no fault of its own, became a symbol of the segregationist spirit that still dominates much of Illinois. The late Rev. Dr. Martin Luther King, Jr., sponsored a tent-in at the newly chosen accelerator site in protest against the location of a national laboratory in a state whose legislature had adamantly refused to enact open-housing legislation.

The accelerator chieftains supported King in his protest, and even petitioned the Illinois legislature—in vain—to pass a strong open-housing statute. But the protests by civil rights groups and by a few United States senators and congressmen had no visible effect. Although Illinois was the only state among six finalists that did not have an open-occupancy law, and although the Atomic Energy Commission had specifically stated that the civil rights situation around the sites would be an important criterion in final selection, the decision to put the new machine in Illinois remained unshaken. About all the civil rights advocates got as a result of their protests were some vague pledges that things would get better in Illinois.

Thus it is encouraging to report that, as far as the laboratory itself is concerned, things have indeed got better in the past 3 years. Illinois still has no open-housing law, but the laboratory itself has initiated an aggressive equal opportunity program. It can point to significant successes in recruiting and training ghetto youths to become technicians, in drumming up minority contractors to perform work on the complex construction project, and in exerting pressure for open housing in the communities of the surrounding area. Not all civil rights activists are completely pleased with the laboratory's achievements, and no one is claiming that the laboratory has magically ushered in a new era of harmonious race relations on the farmlands of the Middle West. But the laboratory is clearly one of the more vigorous proponents of racial justice in the Chicago environs. Its programs for minority groups might well serve as a model for other large scientific institutions that wish to make a contribution to the solution of threatening social problems.

Sober Second Thoughts

About the only disappointing aspect of the laboratory's progress so far involves its economic and technical impact on the surrounding area. Those pie-in-the-sky dreams of some politicians that the accelerator would somehow bring a technological miracle to the Illinois prairies—that it would spark economic development, spur the growth of universities, laboratories, and high-technology industry, perhaps even spawn another Route 128, right in the middle of the cornfields—have given way to more sober second thoughts. The latest official estimates—published in a special ten-volume study by Real Estate Research Corporation of Chicago—are that the accelerator's impact will be so diffused as to be almost unnoticeable. Indeed, one of the most obvious immediate impacts has been rather negative in character. Several local school districts have complained that they are in financial straits because land was taken off the tax rolls when it was given to the accelerator.

One of the key figures in the laboratory's minority group programs has been Kennard Williams, former head of a local chapter of the National Association for the Advancement of Colored People, who had previously been chief of inventory management at the Veterans Administration Research Hospital in Chicago. Williams was one of those civil rights leaders who had vociferously opposed placing the laboratory in Illinois, but after the battle was over he found himself working with the laboratory's leadership, including Robert R. Wilson, the director, Edwin L. Goldwasser, the deputy director, and Donald Getz, an assistant director. First Williams was asked to prepare recommendations as to what the laboratory should do about fostering equal opportunity, and, ultimately, he was hired as head of a new Equal Opportunity and Community Relations Office at the lab.

Money is Power

"Wilson laid it on the line about what he expected," recalls Williams. "He said he didn't want me to be quiet and nice. He wanted me to come in and do a job. We're trying to use as much of the $300 million it takes to build this accelerator to change social patterns as we can. The name of the game is power. Money affects these things."

The laboratory's minority group programs fall into three major categories: contracts, housing, and employment opportunities. Williams heads a six-man multiracial office (blacks, whites, and Spanish-Americans) that prods for progress in these areas, and there are some signs that they are having at least modest success.

The depth of the laboratory's commitment is well illustrated in the story of a manufacturing job that was awarded early this month to a black-owned manufacturing company on Chicago's South Side. The company, known as the Walter H. Sanderson Co., won two contracts with a combined potential value of nearly $600,000—equivalent to the largest award yet made by the laboratory to any single supplier in the Greater Chicago area. The contracts call for Sanderson to supply two million or more laminations for the magnets of the main accelerator and also to stack the laminations into finished cores—a job which laboratory officials describe as "an unusual assignment requiring great precision—there are only a few other companies in the country with experience in this field."

Now Sanderson didn't just walk in and ask for the job. Quite possibly he

NEWS IN BRIEF

● **PROPOSED SEABED TREATY:** President Nixon has proposed a treaty under which nations would renounce all claims over the resources of the seabed beyond the depth of 660 feet. The treaty would establish an international regime for the exploitation of seabed resources beyond this point, usually found on the average about 50 miles offshore. Money generated from such exploitation would be used for international community purposes, such as aid to developing nations. Nixon also suggested that coastal nations should act as trustees for the international community to govern the international seabed, receiving a share of revenues for payment. Currently, the United States does not recognize territorial seas which exceed 3 miles; we are now engaged in negotiating a treaty for a 12-mile limit for territorial seas.

● **NSB OFFICERS**: H. E. Carter, vice chancellor for academic affairs at the University of Illinois, has been elected chairman of the National Science Board (NSB), the policy-making body of the National Science Foundation. He replaces Philip Handler, president of the National Academy of Sciences, whose term on the NSB expires in 1974. Roger W. Heyns, chancellor of the University of California at Berkeley, was elected vice president of the NSB. Both terms last 2 years.

● **CBW RESEARCH**: At its recent annual meeting, members of the American Society for Microbiology broke with tradition by endorsing several resolutions on political issues. Members supported two resolutions which affirmed support of President Nixon's intentions to end the use, production, and research of chemical and biological weapons and which urged conversion of CBW facilities to peaceful uses.

● **STEAM CARS**: *The Steam-Powered Automobile: An Answer to Air Pollution*, a book written by Andrew Jamison, a former news intern with *Science*, has been published by the Indiana University Press. In his book, the 21-year-old Harvard senior describes the history of air pollution control legislation, the history of the steam car, and current progress on steam engines. The book can be obtained for $4.95 from the Press at Bloomington, Indiana.

had never even heard of the accelerator. But Williams, who is ever on the lookout for capable black-owned firms, heard of Sanderson by word of mouth. He went to Sanderson's metal stamping plant, was impressed by what he saw, and invited Sanderson to visit the laboratory to talk to purchasing and contracting officials about jobs he might be able to perform. After Sanderson decided to bid on the lamination job, he got additional valuable help from Williams who scoured the nation with him to locate the huge stamping presses required to perform the job. One was found in Pennsylvania, the other in California. "This is an important day for me and my company," Sanderson said when the contracts were signed. "These contracts represent the largest total that I have received since I started business on Chicago's South Side about 5 years ago."

There have been other successes in the contracting area as well, though they are considerably less spectacular than the Sanderson award. Williams and his staff have developed a list of "black industries" that perform work relevant to the laboratory's present and future needs, and they have made the list available to major contractors who might use the black firms as subcontractors. Williams estimates that maybe half a dozen firms on a list of roughly 45 have won jobs fabricating accelerator components, while several other have won subcontracts for routine construction work at the site. Most of the contracts have been small, but one black subcontractor won an electrical job worth a third of a million dollars. The chief problem hindering the effort to employ more black firms, according to Williams, is that "this is a pretty heavy, sophisticated construction project and most of the minority contractors aren't far enough along yet to handle it."

In the employment area, the laboratory has been scouring the ghettos for potential technicians and has been pressuring contractors to open their ranks to minority group members. All bidders are required to submit, under federal order, an "affirmative action" program for establishing training and jobs for members of minority groups. In theory, a bid can be rejected solely because its affirmative action program is unsatisfactory, and, on at least one major occasion, that is just what has happened. According to Williams, a large construction company that won one contract filed its affirmative action statement but then failed to comply with its pledges. By the time the company's duplicity was discovered, it was too late to revoke that contract. But the company later bid on another contract—one ranging into the millions of dollars—and even though its bid was low, the bid was thrown out. "The contractor threatened to take us to court," says Williams. "We told him 'Fine,' but he never did."

Williams gives most of the credit for bringing the contractors into line to the accelerator director, Robert Wilson. "Ken Williams can beat his head against the wall and the contractors will just laugh themselves sick," he says. "But when Bob Wilson tells them what he expects, and says that if they don't think they can do the job under these conditions they should go away, that makes all the difference."

Blacks in a White Union

The laboratory has also participated in several programs to train the hard-core unemployed. One of the first such programs involved training 100 youths to run heavy earthmoving equipment of the sort used to build the giant accelerator. Williams, in his wanderings, struck up an acquaintance with William Martin, the head of a local union of operating engineers. He learned that the union, most of whose members were white, was having trouble supplying contractors with manpower in the suburbs west of Chicago, where the accelerator site is located. Meanwhile, in the Chicago ghettos, young men were causing destruction at least partly because they were unable to get jobs. The way to start solving these two problems seemed obvious. Williams, along with the architect-engineering firm that is building the accelerator, recruited job candidates from the ghettos, and the labor union, under a Department of Labor grant, ran a training program for them. Of the initial 100 trainees, 86 completed the course and 72, at last count, were still working as operating engineers. Many have worked or will work on construction jobs at the accelerator site.

In another pilot program, the laboratory recruited 24 young blacks from the inner city and sent them to Oak Ridge National Laboratory for technical training as machinists, draftsmen, and mechanical and electronic technicians. "Overriding emphasis was placed on the apparent motivation of the interviewees," according to Goldwasser, the lab's deputy director. "No criteria

were imposed concerning previous school or job achievement, police or prison records." Of the 24 who started the course, 22 successfully completed the training program and about 20 are still at work at the laboratory. A second group of trainees—comprised of four American Indians, four Spanish-Americans, and four Negroes—has subsequently been sent to Oak Ridge.

Still, the laboratory's efforts to employ minority groups have not been an unqualified success. More than 20 percent of the laboratory's nonprofessional employees are black, but the percentage drops rapidly as the jobs increase in skill. Laboratory officials tend to blame this situation on the inequities in the society at large, rather than on any shortcoming in their recruiting procedures.

In the area of fair housing, the laboratory has been active and has achieved some success. The Illinois legislature still refuses to pass an open-housing statute, but at least 59 communities in northern Illinois had adopted local fair-housing ordinances as of 6 March 1970. Laboratory officials have testified in favor of such ordinances in the surrounding communities and, in some cases, according to Williams, the laboratory's voice has played an "important part" in the final decision to enact local fair-housing codes. Moreover, the laboratory helps its black employees find housing, it sometimes rents apartments and subleases them to black employees, or it otherwise guarantees to assume responsibility for the leases signed by its black employees—thus depriving landlords of a reason or excuse for turning down black tenants. Williams claims there has been only one housing problem so far where the landlord turned down an obviously qualified applicant, but he says the mayor of the town involved subsequently called "and assured us it wouldn't happen again."

How effective has the laboratory been at changing social attitudes? Wilson himself is making no great claims. "It is easier to accelerate particles," he has observed, "than it is to accelerate societies." Some officials of civil rights organizations go even farther and express disappointment at the "slow pace" of the laboratory's social programs. "Attempts are being made to use the project constructively, but it's low profile," says Hampton McKinney, program director of the Chicago Urban League. "The laboratory is not operating in a way that causes any big excitement. It's not as if they were really moving." Similarly, Ben Bekoe, head counselor for the Urban League's apprenticeship project, says that while the laboratory itself has an aggressive minority hiring program, it should "put the screws on the contractors" to hire many more blacks than are actually on the job.

Still, the laboratory's heart is unquestionably in the right place, and its minority group programs might well serve as a model for other large scientific and educational institutions that have sizable payrolls and large construction and purchasing budgets. Accelerator officials suggest that individual scientists and small institutions which lack the accelerator's muscle might want to band together in national or regional clearinghouses to make their collective weight felt on matters of racial justice.

In these days when increasing numbers of scientists are seeking a way to make their work "relevant" to society, they might well look, not to the substance of their work, but to such bread-and-butter matters as whom they employ and from whom they buy things. If high energy physics, the most arcane and remote of all subjects, can make itself relevant that way, so can all other disciplines. —PHILIP M. BOFFEY

Campus Politics: Decentralization Is Pattern at Berkeley, Stanford

Trendwatchers agree that the most significant campus reaction to the invasion of Cambodia by U.S. forces has been a large-scale involvement of students and faculty in nonviolent political action. Visits to the Stanford and Berkeley campuses made by this reporter during a 10-day trip to the San Francisco Bay area starting in mid-May tend to confirm this generalization, with the important qualification that campus efforts are not being channeled into conventional party organizational activity.

The strongest impression given is of decentralized activity. For the moment, at least, the campus confrontation seems to have become less important. The diffusion of political activity makes it much more difficult for the reporter or, in fact, for students, faculty, or administration to describe the situation on a particular campus comprehensively. For that reason alone, any analysis of current developments is best taken as partial and provisional.

In California the surge in nonviolent political action comes at the same time that destructive acts against campus facilities by individuals or small groups are increasing. The "fire bombing" of the computer center at Fresno State College in May did damage estimated at up to $1 million, and incidents of arson and "trashing" (window breaking) and vandalism of other kinds have multiplied this year. At Stanford and elsewhere many students and faculty members seem to have been impelled to take up nonviolent political action in part, at least, in response to the escalation of violence on campus.

This is not to question the impact of the Cambodian action on faculty and student opinion. Cambodia appears to have been the strongest catalyst to date in bringing large numbers of faculty to take active antiwar positions. At Berkeley, more than half the engineering faculty signed a statement urging an immediate end to the war and a vigorous attack on domestic problems. The statement, which noted that engineering students for the first time have become "deeply involved in a protest against government policy," is regarded as symptomatic of the depth of feeling because engineers have been regarded collectively as the least likely to protest.

For the universities, the most significant aspect of recent weeks may well be the character of the "strike" called in response to the Cambodian action. The boycotting of classes that occurred on many campuses was much less important than the accomodations made at Stanford, Berkeley, and else-