problems of its own region—the evident need for tighter control of strip mining and for a "severance" or production tax on coal, ARC has been suspect from the start in the eyes of people such as Harry Caudill, the Whitesburg, Kentucky, attorney (and author of Night Comes to the Cumberland), who seeks to have Appalachia throw off its subservience to outside economic interests. When the Appalachia legislation was being formulated, Caudill and others wanted it to provide for studies that might lead to publicly owned hydropower and minemouth power systems. But their proposals were successfully opposed by the electric utilities, railroads, and other corporate interests.

Adoption of a severance tax could bring the Appalachian coal field region a measure of the economic self-sufficiency that has thus far eluded it. A bill by U.S. Senator Lee Metcalf (D-Montana) would establish a 5 percent federal severance tax on all minerals—with the states allowed to claim a total rebate by adopting severance taxes of their own. This measure, now stuck in the Senate Finance Committee, would allow Pennsylvania and West Virginia each to collect over \$45 million a year and Kentucky to collect more than \$26 million. There are also bills in Congress to have federal authorities oversee state regulation of strip mining, regulation which is now plainly inadequate. These too languish in committee.

While the ARC staff has recognized the need for federal or state severance taxes and for better regulation of strip mining, it has been leary of pressing either of these controversial issues. Now, however, ARC has studies under way which may lead the commission to advocate severance-tax and strip-mine control legislation, possibly combined in a single package. Part of the proceeds of the tax might be assigned to such things as land reclamation and public purchase of those coal lands zoned against strip mining. Given ARC's prestige regionally, and even nationally, its endorsement of such measures could have an influence.

In sum, the Appalachia program has provided a test of a promising new mechanism for a joint federal, state, and local attack on regional development problems. But, up to now, that attack has not reached to two gut issues—issues which cannot be avoided much longer without leaving ARC open to charges of a shameless dereliction of duty.—LUTHER J. CARTER

Los Alamos, Livermore, JPL Studied

Special committees at two California universities have recently examined their ties to government-supported laboratories and have determined that closer control by the campuses is imperative.

A Study Committee at the California Institute of Technology has concluded that it should maintain its ties with the Jet Propulsion Laboratory (JPL) provided the scope and style of work is "appropriate to a university-affiliated laboratory, and meaningful interactions with the campus exist." Similarly, a special committee at the University of California has recommended that the university assume substantially more control over the operation of two weapons laboratories, the Lawrence Radiation Laboratory at Livermore, California, and the Los Alamos Scientific Laboratory at Los Alamos, New Mexico.

Caltech has managed the Jet Propulsion Laboratory for the National Aeronautics and Space Administration (NASA) since 1958. JPL, which is located a few miles from the Caltech campus at Pasadena, has been responsible for research, development, and engineering for unmanned spacecraft and has controlled lunar and planetary flights of these craft. JPL has also designed, built, and operated the Deep Space Network, a series of three tracking stations designed to monitor Mars, Venus, and other deep-space probes. For fiscal year 1968–69, expenditures at JPL were \$144 million; by comparison, Caltech's campus budget was \$32.6 million.

The Study Committee's report suggests that a faculty committee be established to give advice on policy matters at JPL and that the faculty be involved in long-range planning for JPL. Caltech divisions should consider more JPL staff members for visiting or part-time faculty appointments, the report says. The Graduate Study Committee should develop policies for graduate students who wish to do thesis work at JPL, and undergraduates should be more readily employed.

The Study Committee recommended that the laboratory open its guarded buildings and grounds to all persons with Caltech identification (this recommendation has already been implemented); publication and information policies should be as open as possible, and classified work should not be permitted. (JPL now has one task that is entirely classified; several others incidentally involve some classified information.)

The report also suggests some changes in JPL's work. The Study Committee declared that JPL should work on only a few missions at one time; that it should diversify carefully, choosing work closely related to Caltech's competence; that the basic research program should be strengthened, with more discretionary authority given to JPL management; and that nonspace projects be modified to focus on one or two areas.

Some of the recommendations require administrative or faculty action; others need NASA approval. The Caltech trustees apparently need not act.

The University of California laboratories at Livermore and Los Alamos are operated for the Atomic Energy Commission; most of their work is devoted to research and design in the area of nuclear weaponry. Last year the operating budget of the laboratories was \$224.5 million, as compared to an operating budget for the nine university campuses of \$678 million.

The Special Committee (with one dissenter) supported the university's war weapons research, but declared that "the Laboratories contribute too little to the welfare of the University." The committee felt the university should increase its administrative control over the laboratories, shape their policies, and increase the educational functions of the laboratories. If these steps are not taken, the committee said, the university should terminate its relations with the laboratories.

The Academic Senate will meet next fall to consider the report. Any faculty action will be advisory to the Regents.—NANCY GRUCHOW