

tive committee of the university Senate, said in an interview, "What is happening is that the polarization is becoming ever more evident—it's become a situation of 'them' and 'us.' Students are going to come back this fall, whether they knew the dead students or not, and they will believe only that two students were killed without seeming justification. The students will think that any of us can be killed on the street by police. It will lend credence to the radicals' contention that there must eventually be a radical armed conflict in this country. This may really be the passing away of the nonviolent era."

On 29 July the national commission on campus unrest, headed by Governor William Scranton, announced that it would look into the situation at the University of Kansas. Four days earlier, Joseph Rhodes of Harvard University, the member of the commission who attracted attention because of his disagreement with Vice President Agnew, visited here to meet with students.

#### **Embittered Attitudes Bode Ill**

As universities prepare to open in September, it is clear that attitudes are growing more embittered. As the massive Chicago "rock" riot of 27 July illustrated, some young people view police as the enemy and are willing to do open battle against armed police. And, as the killings at universities show, police may shoot at students.

"This is the last nonviolent march I'm ever taking you on," shouted George Kimble, as the Oread Avenue people finished their march to protest police killing. "If it happens again, it will be different." Students, both white and black, say that the number of guns is increasing among students in Lawrence.

"Two students are dead. This university won't be able to go back to what it was before," said one student.

It is difficult to stitch together a university that has been ripped apart by killings of its members by police authority. The time for responsible university administrators, professors, and students to establish continuing channels of communication between students and police is before the shooting starts.—BRYCE NELSON

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## **U.S. Seeks Cleaner Auto Engines**

Sufferers on the smog-bound East Coast last week could take little comfort from government promises to clean up automobile contributions to air pollution. In recent weeks, federal officials have announced that the government would sponsor the development of alternatives to the internal combustion engine, with the hope of having such cars on the market by 1980, and that it would stiffen exhaust emission testing procedures. But at the same time, air pollution officials announced that manufacturers will have until 1972 to meet emission standards originally set for 1970. The standards will have to be met under the new, stiffer testing procedures, however, which have recently shown that cars certified as meeting current standards actually fail them dismally.

Russell E. Train, chairman of the Council on Environmental Quality, said that by the 1980's, new engines must be developed because even cleaner versions of the present internal combustion engine in the increased number of cars would produce high levels of pollutants. Auto emissions are estimated to cause at least half of the nation's air pollution.

John J. Brogan, who will manage the program to develop new engines under the National Air Pollution Control Administration (NAPCA), said he hopes to have two low-pollution engines by 1975. The auto industry would thus be able to retool its plants and mass-produce the engines by 1980. Among the promising alternatives to the internal combustion engine, Train said, are the gas turbine engine, a hybrid engine combining a low-powered, fuel-burning engine and an array of electrical batteries, and a steam engine. The project is estimated to cost \$45 million.

The new exhaust emission procedures will be used this fall, when 1972 prototypes begin their tests. Under the old, inaccurate procedures, cars tested by NAPCA meet the 1970 limits for hydrocarbon emissions (2.2 grams per mile) and carbon monoxide (23.0 grams per mile). Under the new procedures, the cars emit more than twice as much as allowed.

Under the new testing procedures, exhaust will be measured entirely by instruments, rather than partially by extrapolation; the test cycle will be lengthened and will include more idling patterns, to more closely resemble city driving; durability tests will be done by NAPCA rather than by the auto makers; each engine will be judged separately; and flame ionization detectors will measure hydrocarbon emissions.

Currently, the cars tested are prototypes, which are different vehicles from the ordinary, assembly-line product. Only 1200 cars last year were tested—4 for each of the 300 prototype engines. An individual engine did not have to pass the standards, provided that the average of the four engines in a class was satisfactory. "We don't have a clear authority to test cars on the assembly line," NAPCA Commissioner John Middleton said. The Administration has introduced Clean Air Act amendments, already passed by the House, which would permit such testing, although the author of the original act—Senator Edmund Muskie (D-Maine)—has repeatedly said that NAPCA already has this authority.

Middleton said industry should be able to adapt to the new procedures easily—indeed, NAPCA began consulting the auto makers on the new procedures in February. The emission control devices, which cost new car owners about \$50, are not expected to increase in price.

NAPCA earlier announced the first standards for oxides of nitrogen for 1973 models. The first standards for particulates (the major constituent of which is lead) will be imposed in 1975.

By then, if a recent Commerce report is correct, the gasoline industry can produce an unleaded grade of fuel. "The Implications of Lead Removal from Automotive Fuel," by the Commerce Technical Advisory Board Panel on Automotive Fuels and Air Pollution, also says that a low-leaded fuel could be available by the end of 1972 and that tax or subsidy policies concerning gasoline should be modified to provide price incentives for the purchase of these fuels.—NANCY GRUCHOW