

month. In short, the shuttle has become to President Nixon what the Apollo programme was to President Kennedy in the early 1960s—a political goal.

Congressional opponents of the shuttle, who in previous years have been unable to shoot down the project's budget, are already girding their loins for the ensuing battle. NASA's budget for 1973 is expected to contain about \$200 million in funding for further design studies and contracts for the shuttle, which is still not a very tempting target (the Administration asked for only \$100 million last year), and Senator Edmund S. Muskie, President Nixon's most likely Democratic opponent in November, has already weighed in with a statement saying that the project should not be given priority since there are other more pressing demands on scarce resources.

But Muskie's comments look pale against those of Senator Walter F. Mondale, chief opponent of the shuttle in the Senate in the past two years. He said last week that Nixon's decision to back the project is "yet another example of perverse priorities and colossal waste in government spending. Typically this Administration can squander \$6,500 million to fly four people in orbit, while it refuses less than one third that amount to provide desperately needed day care and development programs for millions of pre-school children". Allied with Senator William Proxmire, Mondale plans to mount a full scale assault on the shuttle's budget, and comparisons with the SST are already being offered.

Another highly political aspect of the shuttle is that it is expected to create about 50,000 jobs in the aerospace industry—about a quarter of those lost through running down the Apollo programme. And in addition, selection of the launch base will be politically sensitive since it would be a strong economic asset to the state in which it is located. The decision to scrap plans for a fully re-usable booster has, however, effectively narrowed the site selection down to Cape Kennedy or Vandenberg Air Force Base in California, since those are the only sites in which populated areas would not lie under the flight path of the booster. Moreover, since Dr Fletcher said that only \$300 million would be spent on site preparation, Cape Kennedy seems to be the chief contender; its existing facilities would not require very extensive modification.

AEC

In Court Again

by our Washington Correspondent

THE Atomic Energy Commission, still in turmoil after the court of appeals forced it to amend its environmental rules, and still in the throes of a management shake-up instituted by the new

chairman, James R. Schlesinger, is now faced with an even greater threat to its existence. Last week, a group of six environmentalist organizations filed a suit in the district court alleging that the act which set up the commission is unconstitutional since it created an organization which both promotes and regulates the atomic energy industry. The suit charges that the dual role of the commission denies the citizen his constitutional right to a free hearing on nuclear matters, and "violates the due process principle that no man shall judge his own cause".

The environmentalist groups, headed by the Conservation Society of Southern Vermont, which has been active in bringing public attention to the possible environmental and health hazards of the Vermont Yankee power station on the Connecticut River, want the commission stripped of one of its roles, but as yet they have no set convictions about which role should be divested and who should take it on. But they are convinced of one thing, that until the case is settled no new licences for construction or operation of new plants should be issued by the commission, and the groups will ask the court for a temporary injunction to that effect.

But the environmentalists are not alone in realizing the potential conflict of interest inherent in the commission's dual role. The AEC itself decided in 1961 to separate promotion and regulation into different divisions, and in a recent address Dr Schlesinger handed out a stern warning to the nuclear industry that the commission would no longer fight its battles (see *Nature*, 233, 582; 1971). Also, in a speech made last November, James Ramey, one of the five commissioners, suggested that the time has come for the AEC and the Joint Committee on Atomic Energy to take another look at the commission's dual role.

But Irving Like, an attorney for one of the environmentalist groups, said last week that the separation of interests inside the commission is a fiction. "The decision-making machinery is so infected with promotional bias", he said, "that the AEC is not capable of adjudicating disputes." The twenty-seven-page brief filed with the district court also charges the commission with displaying open bias in a number of regulatory processes. It is alleged, for example, that the commission entered into a contract with Vermont Yankee for fuel enrichment before hearings on an operating licence took place, and that the commission's licensing regulations allow manufacturers to purchase or make major components of the steam generators before a construction permit is granted, thereby ruling out a review by the commission of the safety factors of such components.

Asked last week how far the conservation societies are prepared to take the case, Peter Strong, president of the Conservation Society of Southern Vermont, said "to the Supreme Court if necessary". Mr Strong is hoping that the case will bring together a large coalition of environmentalist groups prepared to chip in most of the costs. The whole process could cost up to \$150,000.

AUTOMOBILES

Standards Unmet

by our Washington Correspondent

A COMMITTEE of the National Academy of Sciences has put forward the tentative conclusion that motor manufacturers will not be able to meet the requirements of the Clean Air Act of 1970. The committee, in its first semi-annual report to Congress and to the Administrator of the Environmental Protection Agency, suggests that 1975 model cars will not be able to meet the exhaust emission requirements specified by the act without replacement of catalysts during the lifetime of the vehicle as specified by the act. Moreover the committee suggests that if the requirements of the act were met, cars would cost about \$200 more to buy, up to 12 per cent more to run, and they would not perform as well as present cars.

But the committee suggests that if manufacturers were given one more year to develop engines to meet the requirements, the reliability of the vehicles would be markedly improved. And, as far as controls on emission of oxides of nitrogen are concerned, the committee paints an even gloomier picture. "The technology of catalysts suitable for NO_x reduction is not nearly as advanced as that of oxidation catalysts," the committee states, and "the level of current research and development on reduction catalysts for NO_x control is not commensurate with the importance of the problem".

The committee's report is potentially very influential, since the Clean Air Act specifies that the Administrator of the EPA has the power to defer compliance for one year, but in doing so, he must take into account advice from the academy.

The committee says that it addressed itself specifically to the question of whether the motor manufacturers would have the technology available to meet the requirements by 1975. It bases its conclusions on information supplied chiefly from industry, but more than 700 statements were also sent to newspapers, individuals, magazines, environmental groups and publications. But the committee claims that the response has been "disappointingly small".