

poration initiated its uranium enrichment program. The Uranium Enrichment Associates was to be an *international* commitment to a nuclear energy future, with approximately 66 percent of the financing to come from foreign sources: France 10 percent, Iran 20 percent, Japan 20 percent, W. Germany 11 percent, and others including Italy, Switzerland, Taiwan, Spain, Portugal, and Austria 5 percent. UEA expected to sell two-thirds of its product to foreigners, particularly the major contributors. Bechtel had already proved itself to be one of the most aggressive of the nuclear energy interests. In early 1971 the French CEA had announced that it had chosen Bechtel to conduct initial site selection of the Eurodif plant. (Not coincidentally the Gaullist CEA had earlier decided to work cooperatively with GE's arch rival, Westinghouse, on nuclear reactor construction). By 1972 Bechtel was working on a variety of enrichment programs with Canada's Brinco. In 1973, cooperation began with the Japanese on the conceptual design and marketing design for a 9 million SWU base-line gaseous diffusion and centrifuge plant. In 1973 Bechtel began studies with the Australians for similar enrichment facilities. By 1975, Bechtel was studying the possibilities of constructing enrichment facilities in Zaire and was providing unclassified enrichment data to Iran. In early March, 1975 Bechtel officials met with the Brazilian Minister of Mines and Energy offering them "the entire gamut from the development of the (uranium) mine, ore processing, enrichment, fuel processing, through the design and construction of the nuclear power plants themselves."

The danger of permitting Bechtel to begin the Alabama facility was clear to Rockefeller interests. Office of Management and the Budget's Lynn, who generally backed the program, pointed out in the 1975 hearings on the Nuclear Fuels Assurance Act: "It seems to me reasonable to believe that private firms would be more aggressive than a Government agency or corporation in pursuing foreign customers...." Heading the opposition to the legislation, Congressman Seiberling (D-Ohio) picked up the same theme from the negative perspective in the July floor debate, "...if we start creating a private industry for uranium enrichment, we are just going to create one more lobby, one more pressure group pushing to sell more and more regardless of controls. Because of the commitment of 60 percent of the product of the UEA plant to foreigners, they will be lobbying too, as will their governments...."

Rockefeller interests went after the Bechtel proje going after the enabling legislation, the NFAA, which had been submitted by President Ford June 26, 1975.

Like Westinghouse, which naively accepted John J. McCloy of Chase Manhattan Bank as their counsel, Bechtel chose Sherman and Sterling as their legal advisors. Longstanding lawyers for Citibank, the law firm was hardly pleased with Bechtel's encouraging Brazil and Zaire to use their currency reserves for nuclear energy development rather than debt service, and Sherman and Sterling partner John Bullitt had already been recruited as treasurer to New Directions, an arm of David Rockefeller's Trilateral Commission, which was drafting and lobbying for anti-nuclear energy legislation

## U.S. Uranium Enrichment Critical

Uranium enrichment involves separating the two principal isotopes found in uranium in its natural state - U-235 and U-238. By weight, 0.711 percent of natural uranium is U-235. The work done to separate these isotopes to increase the U-235 content in a portion of the material leads to the productive capacity measure, Separative Work Units (SWU), which is not a quantity of material but a measure of the effort required to separate a given quantity of uranium into two streams, one having the higher percentage of uranium-235.

Most domestic and foreign commercial nuclear power reactors require slightly enriched uranium — between 2.0 and 4.0 percent: Normal separative work produces only one stream with this percentage of U-235. However, the internal economics of the process are such that the other stream, called the "tails assay," can have its content increased so that it is more enriched. However, since this involves less efficient separation, a change of the "tails assay" from, for example, 0.2 to 0.375 percent to permit the same separative work unit to produce more enriched uranium would require 44.5 percent more natural uranium input or feed.

Given current ERDA enrichment contracts, the

need for new enrichment plants cannot be delayed significantly by raising the "tails assay" for the indicated increase in output. In fact, present U.S. enrichment capacities are fully committed given even a 0.3 percent "tails assay." While some increased output could be achieved by increasing this to 0.375 percent, this would, as suggested, seriously strain the capacities of the uranium mining industry to provide raw supplies. The seriousness of the present enriched supply shortfall is indicated by the fact that without additional facilities, a "tails assay" of precisely 0.375 percent will be required to meet even the U.S. demand already written into forward contracts by ERDA.

With 1977 world demand at 10 million SWU in 1977, the U.S. will deliver 4.7 million to foreign and 5.3 million to domestic customers. Total SWU in the U.S. will be 15 million with the excess going to the government's enriched uranium stockpile, presently at 21 million SWU and expected to reach approximately 40 million SWU by 1981. ERDA's present policy, as the Rockefellers would have it, is to draw down the stockpile to meet domestic and foreign requirements as demand increases — rather than construct new plant for the 1981-85 period's demand.