Mongolia is not exactly the most powerful nation in the world, but she is an ally of the Soviet Union. Moreover, Dugersuren's comments at CCD are often regarded as reflecting the Soviet view. Whether or not the above remarks were symptomatic of Soviet thinking, they at least represented a growing sentiment among nations at CCD.

A Symptom of General Confusion

If the binary procurement funds are approved by Congress, it will not be the first time that the United States has gone about building a weapons system while simultaneously engaging in international negotiations for its abolition. Indeed, when seeking funds for other weapons, such as the antiballistic missile or the Trident submarine, the military have claimed that the programs would strengthen our international bargaining position.

Another interpretation of the advance of the binary program, however, is that it is less a well-thought-out strategem than evidence of the current confusion of U.S. chemical warfare policy. The CCD is but one of three international fronts where other nations have taken action or indicated their intentions, but are waiting on the United States.

One of these is the 1925 Geneva Protocol which bans first use of chemical weapons in war. One hundred and two nations are parties to the treaty, and in 1969, 58 nations voted in favor, with 3 opposed, to a United Nations General Assembly resolution stating that the protocol included tear gas and herbicides.

However, in 1969 when President Nixon sent the protocol to the Senate for ratification, he added that the United States should exempt tear gas and herbicides—both of which were at the time being used in the Vietnam war. The Senate Foreign Relations Committee, after holding hearings on the matter, in October 1972 asked the White House to reconsider its interpretation of the protocol. Although the National Security Council (NSC) periodically restudied its position on the protocol, no message from the White House has been forthcoming. NSC is now making another study, which, this time, might include a possible chemical weapons ban.

Another area of confusion is the Biological Weapons Convention of 1972, which the other two principal signing nations—the Soviet Union and the United Kingdom—have said they were ready to ratify when the United States is. But the Senate has told the White House that it will not ratify the convention until after it receives a reply to its queries on the Geneva protocol. Thus not one but two landmark treaties—to which many other nations have agreed—are stalled.

It is against this background that the arms control advocates are dreading the advent of a U.S. binary weapons program. Or, as Iklé said in his testimony, "If we start on a new type of production program it becomes even harder to envisage constructive arms control agreements limiting competition in chemical weapons."

—DEBORAH SHAPLEY

Clean Air: Congress Settles for a Restrained Coal Conversion Plan

Congress was expected last week to pass a bill designed to shift some oil users to coal without doing too much violence to air quality standards.

The bill, called the Energy Supply and Environmental Coordination Act of 1974, is the result of a good deal of cutting and pasting of other energy bills that have been sitting around Congress, as well as of the Energy Emergency Act that was vetoed by President Nixon last February. The emergency act was shot down because of provisions calling for rollbacks on crude oil prices (Congress has since given up on that effort); it also generated a good deal of alarm among environmentalists and public health officials because it would have permitted selective violation of national primary ambient air quality standards (the ones designed to protect public health) instituted by the Clean Air Act of 1970.

The chief purpose of the current bill is to take the edge off demand for oil and gas and stimulate coal production by requiring that certain utilities convert to coal as their primary fuel. The original House bill, drawn up in the Interstate and Foreign Commerce Committee, chaired by Harley Staggers (D–W.Va.), would have mandated conversions even where they would have resulted in violations of primary standards for up to 4 years. The House-Senate conference, however, settled on a version closer to that masterminded by Senator Edmund Muskie (D–Maine), chairman of the air and water subcommittee of the Public Works Committee. The conditions for conversion are exceedingly complicated. In brief, the Federal Energy Administration (FEA), with the approval of the Environmental Protection Agency (EPA), could order coal conversions in air quality regions where conversion would not cause or contribute to violation of primary standards. In clean areas, individual effluent limitations would be lifted to allow the burning of dirty (high-sulfur) coal; in dirty areas, plants would have to burn clean coal or install whatever devices that would be necessary to avoid aggravation of existing conditions. FEA would have the power to order conversions for a period of a year after enactment of the bill. Enforcement powers would extend until the end of 1978. By 1 January 1979, all converted plants would have to be back in conformance with the original federal and state timetables. Estimates of the potential number of plants affected vary; one guess is between 12 and 20, considerably fewer than those on a list drawn up last winter by the FEA, which contained well over 100. At that time the American Public Health Association predicted that such a massive conversion would raise the rate of respiratory diseases and death among the "at risk" population by 20 to 40 percent.

The success of the plan depends in large part on the availability of low-sulfur coal, all of which is currently being burned up as fast as it comes out of the ground. Framers of the bill

are relying on new long-term contracts between utilities and suppliers to stimulate the opening of new mines and reopening of old ones; however, a possible coal strike next fall, when United Mine Workers' contracts come up for renegotiation, could foul the picture considerably.

Another major provision of the act is the long-anticipated postponement of strict auto emission standards. The 1975 interim standards for carbon monoxide and hydrocarbons will be extended to 1976, with exceptions allowed to 1977. Deadlines for limits on nitrogen oxides are being pushed back from 1976 to 1978.

In addition to extending timetables for pollution standards, the anticipated bill also curbs the EPA's powers to require transportation controls. When state plans for reducing auto emissions are deemed inadequate, EPA has told them to take additional measures, in the form of parking surcharges, creation of fast bus and car-pool lanes, and permits for the location of new parking lots—all of which serve to reduce automobile use and stimulate mass transit. When EPA imposed these demands on a number of cities last summer, it generated a good deal of ill will, especially in California where there are virtually no alternatives to the automobile. In response to these complaints, the House committee decided to prohibit EPA from requiring parking surcharges, and put the parking-lot permit issue on ice for a year.

The bill also settles an issue that Muskie was getting very hot under the collar about, relating to EPA's relationship to the National Environmental Policy Act (NEPA). Representative Jamie L. Whitten (D–Miss.) of the House Appropriations Committee believes that EPA's actions should be subject to the NEPA provisions that require all federal agencies seeking to institute major actions affecting the environment to file environmental impact statements. EPA head Russell Train, presumably in order not to jeopardize EPA's funding, has been tooling up the organization to comply with Whitten's suggestion. This infuriated Muskie, who said the NEPA environmental review procedures "were intended to apply to mission agencies . . . and not environmental protection agencies." The application of NEPA to EPA could indeed result in endless delays and subject the agency's decisions to interminable tie-ups in court. On the other hand, there are some observers who see no reason why NEPA shouldn't cut both ways. They say, for example, that if a statement had been filed on the impact of the Clean Air Act, problems of oil shortages resulting from past conversions by utilities to oil (in order to abide by effluent limitations) might have been anticipated. At any rate, Muskie won this one—the current bill specifically exempts EPA actions under the Clean Air Act from the NEPA provisions.

Whither the Clean Air Act as a whole? Some environmentalists were despairing over its future last winter, but now things look brighter. The act was supposed to be up for reauthorization this year, but the new act, which comes in the form of amendments to the Clean Air Act, gives the Clean Air Act a 1-year extension, delaying the real challenges by a year. A Senate staffer explains that the delay is appropriate in light of uncertainties about impeachment. Others observe that the act could stand a better chance later of escaping weakening amendments. And Congress can avoid thinking about the Clean Air Act amendments submitted by the Administration in April, which include extension of auto emission control deadlines for up to 10 years in some cases and suspensions and extensions of air quality standards going beyond anything yet suggested on Capitol Hill.

Currently, the most potent threat to the Clean Air Act is coming from utilities and heavy industries such as steel, copper, and chemicals. They complain about the unavailability of clean fuel and assert that current abatement technology is unwieldy, unreliable, energy-wasting, and expensive. These enterprises are pushing for intermittent control strategies, otherwise known as "pollution by dilution," which would involve building tall stacks to disseminate pollutants, switching back and forth between clean and dirty fuels depending on what the atmosphere can stand, and other methods to hold effluents under prevailing limits.

On the other hand, according to congressional staff members, state agencies responsible for promulgation and enforcement of air quality standards find the basic act workable and oppose any attempts to weaken it. In fact, some states like the primary standards so much that they are moving ahead to set deadlines for secondary standards, which are designed to protect property, vegetation, and esthetic things such as visibility. (The federal government has only said these standards should be put into effect as soon as possible.)

It is probably well that the grab bag of proposals called the Energy Emergency Act was scotched last winter. The current act is considerably more modest in intent and more carefully thought out—even if no more prescient.—CONSTANCE HOLDEN

RECENT DEATHS

Joseph R. Bailer II, 70; professor emeritus of education, Western Maryland College; 7 January.

Satyendra N. Bose, 80; professor emeritus of physics, Calcutta University; 4 February.

Frank D. Enck, 47; professor of physics, Franklin and Marshall College; 16 December.

Edwin R. Erickson, 73; professor emeritus of chemistry, Augustana College; 16 January.

Gerald W. Fox, 73; former head, physics department, Iowa State University, Ames; 12 January.

Glenn Gentry, 78; retired chief of fish management, Tennessee Game and Fish Commission; 15 December.

Ralph W. Gerard, 73; professor emeritus of biology, University of California, Irvine; 17 February.

Albert H. Hegnauer, 73; former research program director, U.S. Army Research Institute of Environmental Medicine; 25 December.

William P. Hurley, 78; former professor of physics, Fordham University; 7 January.

R. Russell Murphy, 74; professor emeritus of poultry science, Pennsylvania State University; 3 February.

Theodore T. Odell, 77; professor emeritus of biology, Hobart and William Smith Colleges; 8 February.

Leland W. Parr, 81; professor emeritus of bacteriology, hygiene, and preventive medicine, George Washington University; 15 December.

Rudolph D. Radeleff, 55; director, Veterinary Toxicology and Entomology Research Laboratory, U.S. Department of Agriculture; 7 January.

Marvin J. Stern, 38; former professor of chemistry, Belfer Graduate School of Science, Yeshiva University; 29 January.

Lewis L. Strauss, former chairman, Atomic Energy Commission; 21 January.