

Ozone Plan: Tough Bargaining Ahead

Negotiating teams from 33 countries are scheduled to meet in Montreal on 8 September for what is supposed to be the final round of talks leading to a treaty to control emissions of chlorofluorocarbon (CFC) gases and solvents. After 9 months of negotiations, however, there are doubts about whether an effective plan to protect the earth from excessive levels of ultraviolet radiation will emerge.

Negotiators are now working on the seventh version of a draft treaty to control CFC emissions. They are hoping to have a final document ready for dignitaries to initial in Montreal during the week of 14 September. The negotiations, which are sponsored by the United Nations Environment Program, may, however, be unable to resolve disagreements on the timing and severity of cutbacks in the use of CFC compounds.

The thinning of the ozone layer is thought to be caused by increased levels of chlorine in the upper atmosphere. CFCs—which are widely used in industrialized countries for refrigeration, air conditioning, manufacturing plastic foams, cleaning electronic components, and other purposes—release chlorine when they break down in the atmosphere.

So far, delegates who last met in June in Geneva have tentatively agreed to a plan that would freeze production of most CFCs at 1986 levels. A 20% reduction in production and consumption would take effect 4 years after the treaty is enacted, and a further 30% reduction would be required within 8 or 10 years of enactment unless two-thirds of the participating countries vote against it.

But disagreements over the details of how to implement this plan threaten to diminish these proposed reductions, if not jeopardize the entire negotiations.

Some of the critical issues that must be settled include:

- The treatment of Halons 1211 and 1301, which are widely used as fire extinguishants. The United States wants them included in the agreement because they are highly destructive to the upper ozone layer and their use is expanding rapidly. Britain and France, however, oppose phasing out these compounds on the same schedule as other CFCs. They favor a freeze on production levels, with a review in 1990 on whether actual reductions should be required.

- A proposal to count the 12-nation European Economic Community as one bloc. Such an approach would mean that EEC member countries would not have to achieve uniform reductions in CFC consumption if the community as a whole were

in compliance. The United States opposes this because it could result in some countries putting off taking action.

- Another sticky issue is when and how to impose trade sanctions on goods containing CFCs (refrigerators) or made with CFCs (electronic items, packaging, and other foam products). In particular, should sanctions apply to all countries that fail to follow the treaty—signatories and nonsignatories—and should they be imposed 1 year after the treaty's enactment, 4 to 6 years later, or not at all?

The Reagan Administration is far from united on some issues. In June, the White House Domestic Policy Council had to settle an interagency fight (*Science*, 29 May, p. 1052) over whether the United States should back a 50% reduction in CFC use or settle for a freeze in production. Department of Interior Secretary Donald Hodel went so far as to suggest that the Administration should consider encouraging Americans to use sunscreen and wear sunglasses rather than force industry to adopt substitutes to CFCs. The White House sided with the Environmental Protection Agency and the Department of State, both of which favor a staged 50% reduction.

This position represents a compromise from the stance first taken in December 1986 by Richard E. Benedick, the State Department's deputy assistant secretary for environment, health, and natural resources. At that point the Administration was calling for a rapid 95% reduction in CFC use. A phase-out continues to be official policy, but the draft protocol specifies that further reductions beyond 50% will be subject to the recommendations of a science review panel.

Whether EPA will conclude that a 50% reduction is adequate remains to be seen. The agency is under court order to issue regulations by December that will protect the ozone layer from being eroded. The rule-making results from a lawsuit brought by NRDC in 1985, and could call for American industry to shift away from chlorofluorocarbons at a faster pace than the rest of the world.

"A 50% agreement will do half the job, but only half," says David Wirth of the Natural Resources Defense Council (NRDC). "To the extent that the agreement does not protect the environment, we are going to be looking to the domestic regulatory process to achieve more." EPA's own studies, NRDC notes, indicate that an 85% drop in CFC production is needed to prevent further damage to the ozone layer. ■ **MARK CRAWFORD**

Animal Rightists Raid USDA Lab

On the weekend of 22 August a group of animal rights activists calling themselves the Band of Mercy broke into a Department of Agriculture laboratory and made off with 28 cats and 8 miniature pigs. Eleven of the cats have toxoplasmosis, an incurable parasitic disease that can cause birth defects in humans if pregnant women are exposed to the cats' feces.

The group, associated with the radical animal rights group People for the Ethical Treatment of Animals (PETA), broke through a chain-link fence and cut several padlocks to gain entry to the Protozoan Diseases Laboratory, which is in the Animal Parasitology Institute at the Agricultural Research Center in Beltsville, Maryland.

Toxoplasmosis is a major cause of abortions among ewes, causing as many as 500,000 a year, according to the laboratory's research leader, Michael Ruff. Ruff says the cats are only infectious when they are shedding the parasite and researchers are particularly interested in whether shedding reoccurs in the same animal. They also wanted to know if the 14 kittens included in the heist had received the parasite from their infected mothers.

PETA, which is acting as spokesman for the cat-nappers, has claimed that the animals were suffering a variety of symptoms such as dehydration and bloody diarrhea; that they were kept chained; that they were rubbed raw by restraints; that they were covered with feces, and that they were being force-fed infected mouse brains. Ruff says this is all fantasy—that toxoplasmosis is asymptomatic in cats, that there were no restraints, and that the cats were not force-fed. Pictures of the captives publicized by PETA show what appear to be healthy animals.

PETA has said that the animals will be treated with sulfa drugs and then given to "caring" families. But Ruff says there is no cure for toxoplasmosis. About 3000 babies a year suffer birth defects from the parasite; Ruff says a pregnant woman who comes in contact with the feces when an infected cat is shedding the parasite stands a "pretty good" chance of infection, and there is about a 50–50 chance of birth defects if a woman is infected. The parasite also poses a danger to people with immune deficiency diseases.

The Federal Bureau of Investigation, the Park Service, and the U.S. Inspector General are now all in on the investigation, but so far there have been no prosecutions in connection with any of the laboratory break-ins and thefts which have occurred periodically around the country in recent years. ■

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