

IN BRIEF

Soviet treaty call

The Soviet Union called for an early treaty covering the development of weapons "still more pernicious" than nuclear arms when the 15th session of the Committee on Disarmament opened in Geneva last week. Delegates from 30 nations, urged to adopt a Soviet draft agreement on the issue, remained in the dark about the precise nature of the doomsday weaponry hinted at, but the Soviet delegate stressed that the reference was not to environmental or weather modification techniques, on which the USSR and USA are expected to approve a draft ban treaty by the end of the 1976 conference. The USSR also renewed its call for a committee of nuclear and non-nuclear states to discuss a comprehensive test ban treaty.

Nuclear safety

Three nuclear scientists who recently quit responsible positions with General Electric in a stand against the US nuclear programme last week told a

Joint Congressional Committee that many US nuclear installations should close because they are below Federal safety standards. In Europe, the Nuclear Energy Agency of the Organisation for Economic Cooperation and Development has meanwhile calculated that ambient radiation levels would increase by about 6% if electricity production needs were met entirely by fission reactors—an increase reckoned to pose less overall risk than hazards associated with existing methods of production. News has also come of a similar assessment attempted in the USA 20 years ago when, between 1945 and 1947, the US authorities secretly injected 18 terminally ill people with doses of plutonium equivalent to levels that would normally be received by plutonium workers in 100–800 years. Three of the human guinea pigs are still alive.

Nuclear arms

As a safeguard against possible terrorist attempts to seize nuclear fuel in Britain, a Bill presented to Parliament

last week extends the authorisation whereby security forces guarding UK Atomic Energy Authority establishments carry firearms to cover other nuclear installations housing "accessible" nuclear materials and UKAEA police accompanying fissionable material in transit. MPs unhappy about the Bill have already promised action at its second reading.

EEC fish limits

In a move anticipating an extension of international fishing limits during next month's Law of the Sea conference in New York the European Commission has called for the setting up of a 200 mile community limit around EEC states. Under the proposals, presented in Brussels last week, each nation will retain exclusive rights over a 12 mile strip within the wider community zone surrounding its own territory. A scientific and technical committee would advise fisheries officials of the Nine on necessary conservation measures before catch quotas and share-out proportions are drawn up for Community waters.

THE Delaney Clause of the Food Additives Amendment forbids the use of food additives that are carcinogenic, or animal feed additives that are carcinogenic and leave residues in the meat. The bureaucratic axe is being sharpened for bacon. On January 19 this year the FDA banned Red No. 2 (Amaranth), and on January 7 announced a forthcoming ban on diethylstilbestrol (DES) in beef production at an estimated cost of \$503 million annually to consumers. Representative James Delaney, evidently not satisfied with the effectiveness of his clause, introduced special and apparently superfluous legislation (HR 9837) for the latter purpose. Not to be outdone, the National Cancer Institute (NCI) recently warned pregnant women against eating beef liver.

Herbst and co-workers reported in 1975 on "benign alterations of the genital tract", especially abnormal vaginal mucosa, in a series of 110 females who had been exposed *in utero* when their mothers received DES prescribed during pregnancy. No cases of cancer were observed, although vaginal adenosis, which is suspected by some authors of being a "precancerous lesion", occurred in 35% of cases. The absence of cancer fits Herbst's earlier observation that the risk of cancer may be considerably less than 4 cases for 1,000 exposures. However, the dosage of DES received by the pregnant women is of extraordinary interest; it was

increased stepwise from the sixth to the 35th week for a total of 12.3 grams and a daily average of 60 mg per patient.

In other investigations, the "DES" content of liver from implanted cattle

Delaney's year**THOMAS H. JUKES**

was found to be 0.12 parts per 10⁹, so that 12.3 grams would be present in 100,000 tons of contaminated liver. The total amount of beef liver produced in the USA is about 140,000 tons per year. More than a century of beef production would have been needed to supply DES in beef liver to the women in the study, none of whom produced offspring who deve-

loped cancer. This assumes that the "residues" are actually DES, which is now known not to be the case. No wonder Mr Delaney is impatient for his ban; he may be worried that common sense will take over.

In a speech in the Senate, calling for a ban on DES in beef production, Senator Edward Kennedy said the ban had been requested by Dr Frank Rauscher, Director of NCI, and that public funds of about \$700 million annually were furnished to NCI, which provides scientific guidance to him on questions of cancer. Perhaps a small allocation, say \$100, should be set aside for the purchase of a pocket-size calculator to compute the actual risk from a daily intake of one molecule of DES, which NCI scientists have testified might cause cancer. Part of the \$100 could be used for a textbook on nutrition, so that NCI could learn that beef liver is the best dietary source of folic acid, and that folic acid deficiency is common during pregnancy.

Indeed, folic acid was discovered, as a result of the anaemia in pregnant women caused by its deficiency, by Dr Lucy Wills in 1931. The deficiency is still prevalent throughout the world, as noted by the World Food Congress in Rome, 1973. A continuation of the dietary lack of folic acid in pregnancy will be aided by NCI's recommendation against consuming beef liver. The protective effect against cancer of this recommendation seems dubious.