under such conditions. Nevertheless, it has been Inco's policy since 1976 to exclude women from working in areas where accidental exposure to nickel carbonyl is possible. This action was taken because of concern for the possible toxicity to the fetus of diethyldithiocarbamate, the therapeutic agent for carbonyl poisoning developed by Sunderman and his father. Sunderman was informed of Inco's action several years ago.

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Good Menus and Fine Recipes for Absent Cooks

A conference for nongovernmental organizations (NGO's) in preparation for the August 1979 U.N. Conference on Science and Technology for Development (UNCSTD) was held in Singapore from 22 to 26 January. It was attended by 137 delegates and observers from such NGO's as the International Council for Scientific Unions, the British Association for the Advancement of Science, the International Federation of Institutes for Advanced Study, the U.S. National Academy of Sciences, the World Bank, the International Institute for Applied Systems Analysis (U.S.-U.S.S.R.), and so forth—13 of them from Africa, 39 from Pacific Asia, 8 from Western Asia, 9 from Latin America, 7 from Eastern Europe and the Soviet Union, 28 from Europe, and 17 from the United States. The delegates received about 3 kilograms of papers at the start, and in six plenary and 12 specific subject sessions held simultaneously produced a final 0.5 kg of new papers containing recommendations. The subjects were for the most part those dealt with at other such conferences attended by delegates from the same types of organizations. Technology transfer and "appropriate" technology were discussed less than at other meetings. For me, a pleasant novelty was the attention given to "social, political, economic, cultural and other contexts of development" in relation to science and technology. It was recommended that UNCSTD consider, "What *specific social* innovations (new laws, organisations, professions, codes of conduct, patterns of behaviour, intelligence systems, patterns of incentives and combinations thereof) should the LDC [less developed country] make in order to import, adapt foreign and/or create domestic technologies in order to contribute the maximum possible to their specific development needs and goals."

By my count this is the tenth mammoth international conference held in preparation for UNCSTD. Taking into account the regional, national meetings involving about 170 countries, I surmise that never in the history of humanity—with the possible exception of the Tower of Babel—has so much effort in the form of words, papers, meetings, and travels, in so many tongues been invested to prepare for an event as for the 2-week-long UNCSTD. All this effort has produced good menus and fine recipes for how to cook together science, technology, and development. But even the "social, political, economic," and so forth sessions in Singapore, as in many of the previous UNCSTD preparation efforts, did not take into account the heads of states and other holders of power in the 170 LDC's. It is they and no one else who have to combine this knowledge in the form of science, technology, and development menus and recipes with the political power and intelligence available to cook them into dishes suited to their national pocketbooks, appetites, and palates. So far these 3000 cooks have not participated in the UNCSTD preparation efforts. Yet without them there won't be any good meals.

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Review of Rasmussen Report

Both the Nuclear Regulatory Commission's 19 January policy statement disclaiming the executive summary and the risk estimates of the Rasmussen report on nuclear reactor safety and the review (News and Comment, 29 Sept. 1978, p. 1196) which motivated that policy statement are remarkable. Even so, they may have been overly generous and insufficiently explicit about the abuses of scientific ethics and the violations of the public trust that appear to have surrounded the study and the high-pressure public relations that uses it as a prop (*1*).

Hearings before the Committee on Interior and Insular Affairs of the House of Representatives were recently held to ascertain how and why, without adequate review, the report was given credence by the Atomic Energy Commission and its successor, the Nuclear Regulatory Commission, and to determine the extent to which the report influenced regulatory policy concerning reactor safety.

Further steps should now be taken to assure that the violations which appear to have occurred in the name of promoting nuclear power do not pass with mere quiet acknowledgement and professional disdain. The abusive use of science to bias public policy decisions will be minimized in the future only if it is emphasized publicly, is punished legally when appropriate, and defenses are constructed to prevent its repetition.

It would seem prudent—in view of (i) the immensely catastrophic consequences of a nuclear accident of even moderate proportions, heretofore downplayed, but which the data of the report and its predecessors alike suggest; and (ii) the fact that no reliable estimate exists of the improbability (or probability) that a nuclear accident will occur—for there to be a formal, public reassessment of the nation's commitment to the widespread use of nuclear power.

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Sudden Infant Death

Jean L. Marx (Research News, 1 Sept. 1978, p. 799) summarizes the case for botulism as the cause of sudden infant death (SID). On the other hand, D. J. C. Read (*1*) has pointed out the similarities between thiamine deficiency–induced neuropathology and SID symptoms, especially the characteristic apnea. I wish to call attention to a possible connection between the two lines of investigation.

It is instructive to note, first, that the thiamine intake of infants may be marginal. Quoting W. J. Sebrell, Jr. (*2*):

> Holt *et al.* [*J. Nutr.* **37**, 53 (1949)] found the thiamine requirement of seven infants to vary between 0.14 mg and 0.20 mg/day on the basis of a urinary excretion test. With an average thiamine content of cow's milk of 0.35 to 0.4 mg/liter, an infant weighing 7 kg is calculated to receive at least 0.3 mg of thiamine a day, but this makes no allowance for destruction by heat in pasteurization or sterilization. The margin of safety is, therefore, regarded as small by Holt and co-workers in the case of either sterilized milk or breast milk, since the latter contains roughly only half as much thiamine as cow's milk.

In view of these figures, the fact that many strains of *Clostridium botulinum* produce thiaminase-I (*3*) may be significant. The anaerobe could precipitate or exacerbate a deficiency by decomposition in the gut of the low concentration of thiamine ingested.

Marx mentions the neurological effects of botulinum toxin. While of slower onset than those of the toxin, the effects of thiamine deficiency on the peripheral and central nervous systems can be devastating. Thiamine triphosphate appears to have an important role in excitable membrane function (*4*). Moreover, evidence now has been adduced for in vivo interaction of acetylcholine and thiamine (*5*).

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Predictive Coding Techniques

Arthur L. Robinson, in his recent article on speech recognition (Research News, 16 Feb., p. 634), ascribes the linear predictive coding technique to Bishnu Atal and other workers in the speech processing field. Without detracting from these significant accomplishments, I wish to point out that an almost identical approach has been used with great success for the past 15 years in petroleum exploration for the processing of seismograms recorded in water-covered areas. In our industry, this method goes under the name "predictive deconvolution." Both approaches are direct outgrowths of the fundamental ideas of Norbert Wiener who developed most of the relevant theory at the Massachusetts Institute of Technology during the 1930's and early 1940's.

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Erratum: In "Uranium mill tailings: Congress addresses a long-neglected problem" by Luther J. Carter (News and Comment, 13 Oct. 1978, p. 191), the chemical designation for yellowcake was given as ^{308}U, instead of the correct formula, U_3O_8.