LETTERS

Nuclear Safety

I am concerned that Colin Norman's article "Assessing the effects of a nuclear accident" (News and Comment, 5 Apr., p. 31) may be misread to imply that I am an antinuclear critic.

My position is that nuclear power is an option our country needs and may continue to need. The best solution to our country's energy crisis is not obvious, and so we need to be exploring various energy alternatives, including nuclear energy.

My primary concern with nuclear power has been and continues to be that all important safety issues be addressed. Technical criticism that responsibly addresses safety problems is not antinuclear but rather is ultimately pronuclear. Safe operation of our nuclear plants is mandatory if nuclear power is to have an expanding future.

My position differs drastically from that of antinuclear critics such as Steven Aftergood, whose goal is to shut down the nuclear industry.

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NAS Exchange Protocol

We read, with disquiet, R. Jeffrey Smith's briefing about the return from Moscow of a delegation headed by the president of the National Academy of Sciences (NAS), Frank Press, who announced that formal scientific exchange agreements between the U.S. and Soviet academies would resume (News and Comment, 8 Feb., p. 614). The new draft protocol has already been accepted by the NAS Council. These accords will affect the activities of much of *Science*'s readership, so we wish to point out some troubling features of their negotiation with regard to time, manner, and place.

Exchange agreements between the academies were partially suspended in 1980, when the erosion of human rights was dramatically underscored by Andrei Sakharov's exile, without trial, to Gorky. The sense of outrage faded gradually to the point, in 1984, when the NAS felt ready to renew the agreements. The NAS Council shelved moves to reopen the matter when consciences were freshly jarred both by political events and by Sakharov's hunger strike on behalf of his wife's health.

What, then, has changed in the past 5 years to explain the about-face from the moral stance of 1980? Have human rights for scientists in the U.S.S.R. shown improvement? Sakharov is representative of scores of others; his situation has worsened—neither he nor his wife can get the medical attention they request, and she too has been banished to Gorky. Scientific seminars by jobless refusenik scientists are in danger of elimination. The NAS Human Rights Committee, in a recent report (*1*), sounds angry: "none of our numerous letters and telegrams to the Soviet authorities have been answered. Many new arrests of scientists have come to the attention of the Committee. . . . [E]fforts by the Committee on Human Rights to obtain reliable information on the current physical and mental state of NAS Foreign Associate Sakharov have proven frustrating and largely unsuccessful. . . ." If anything has changed, it has been for the worse.

Despite the absence of many exchange protocols these past 5 years, interaction on matters concerning catastrophic world dangers have continued. Such issues as arms control and nuclear winter transcend in importance the more normal activities in science, and we applaud the continuing discussions of these topics.

Why then, one wonders, the haste in getting back to doing business as usual? To have held the negotiating meeting in Moscow makes it hard to avoid an unfortunate hat-in-hand image. The timing of the signing of the draft protocol (22 January 1985) is particularly poor. Had Sakharov been sentenced to exile by a court (which he was not) for the maximum legal term of 5 years, he would have been due for release exactly 1 day after the signing.

The contents of the draft protocol have been closely guarded. We hope, but doubt, that human rights are properly shielded by unambiguous language. The sentiments agreed to by the United States and the U.S.S.R. in the Report of the Hamburg International Forum in 1980 seem a minimal starting point. In short, they said that improvements in scientific cooperation of all nations (i) rested on respect for human rights and fundamental freedoms and (ii) required "equitable opportunities for scientific research and wider communication and travel for professional purposes." Any accord, we believe, should include the right to choose exchange participants for their scientific competence (and to refuse last-minute mediocre substitutes) and the right to ensure the freedom of scientific contact both in personal meetings and in correspondence.

If, indeed, the language in the protocol turns out to be less than crisp, we urge our NAS colleagues actively to press for verification measures, watch out for noncompliance, and be bold to speak out. Above all, we should insist that individual cooperation depends on demonstrable evidence of improvements in the human rights status of those scientists who, like Sakharov, have been denied access to official programs.

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Reference

1. NAS Committee on Human Rights, *122nd Annual Meeting Business Session: Annual Report of Officers and Committees* (National Academy of Sciences, Washington, D.C., 1985), p. 61.

Paleobiology at Caltech

Without addressing the pros and cons of Princeton's decision to abandon paleontology, one aspect of Constance Holden's article (News and Comment, 5 Apr., p. 38) deserves redress. It is incorrectly stated that technical universities like Caltech do not train "people on the interface between biology and geology." The evidence clearly shows that, through the substantial efforts of Heinz A. Lowenstam, Caltech has been doing precisely that for 25 years.

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Erratum: In the Research News article by Jean L. Marx, "The polyphosphoinositides revisited" (19 Apr., p. 312), the name of Thomas Roberts of Harvard Medical School was inadvertently omitted from the list of investigators who collaborated with Lewis Cantley on the research on the cellular *src* gene.

Erratum: The negative for figure 4 in the article "Molecular models for DNA damaged by photoreaction" by D. A. Pearlman *et al.* (15 Mar., p. 1304) was accidentally reversed when prints were being made, resulting in a picture that is the mirror image of the correct one. The error does not affect any of the conclusions made in the article. A corrected version of this figure may be obtained upon request from the authors.

Erratum: In the article "Antiviral chemotherapy and chemoprophylaxis" by Raphael Dolin (15 Mar., p. 1296), the compound rimantadine should have been identified as α-methyl-1-adamantane methylamine hydrochloride, not α-methyl-1-adamantanamine hydrochloride.