



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

July 27, 1983

OFFICE OF
THE ADMINISTRATOR

Dr. Courtney Riordan
Acting Assistant Administrator
for Research and Development
U.S. Environmental Protection Agency
Washington, D.C. 20460

Dear Dr. Riordan:

The Research Outlook Review Subcommittee of the Science Advisory Board met on May 2, 1983, to review the Office of Research And Development's (ORD) research strategies for fiscal year 1985. The Subcommittee members had a number of comments and recommendations, which are summarized in this letter.

Generally, the Subcommittee members were disappointed in the lack of preparation by those presenting the strategies. The Energy Research Strategy document had not been sent to Subcommittee members beforehand, making any comments thereon nearly impossible; a number of the presenters were unable to adequately address many of the Subcommittee's questions. There also seemed to be some confusion as to when certain ORD personnel were to make their presentations. Although the Office of Exploratory Research had been requested to write a strategy document only shortly before the May 2 meeting, the Subcommittee would have appreciated a brief overview of proposed extramural research. A lack of supervisory overview seemed apparent in that the strategy documents varied in format and did not present a cohesive overall ORD strategy, but rather a collection of seemingly unrelated research goals.

The Subcommittee members felt that they could not respond critically to the substance of the research strategies because of the general treatment of the proposed research. Only two strategies appeared to be reasonably well-directed by identifying specific research needs: the Air Pollutants Research Strategy and the Water Research Strategy.

The Subcommittee did make some general comments and raised some questions about the various strategies, and these follow.

Air Pollutants Research Strategy.

Questions were raised as to the ability of EPA to carry out research on fine particle epidemiology, in FY 1985, when there is presently no in-house expertise for either conducting the research in-house or managing it extramurally. Some areas that are not addressed include exposure to diesel emissions; models for calculating the effects of oxidant control activities; risk assessments for CO at high altitudes; studies

into health effects from carbon monoxide; and monitoring of acidic aerosols. The Subcommittee members felt that the Air Pollutants Research Strategy does not sufficiently identify, among the research needs stated, the air pollutant research priorities for FY 1985.

Energy Research Strategy

Because the Subcommittee members did not see this strategy document prior to the meeting and only a few responded with a critique subsequent to the meeting, the comments on the Energy Research Strategy were limited. The strategy for acid deposition appears to have been lifted directly from the interagency report, and EPA's strategy raises several questions: Why is no activity projected for control technology when an in-house capability for control technology responsibility exists? Why are the responsibilities of the different agencies not delineated even though they expend considerable funds? It is not made clear in the strategy which parts of the interagency plan are EPA's responsibilities. We feel that effects of terrestrial systems on water quality are crucial to the study of acid deposition. Yet statements made in the strategy document lead one to believe that important interagency elements are not aware of its significance nor of work already done in the area by the Soil Conservation Service (SCS) and the Forest Service.

Water Research Strategy

The members raised a number of concerns. Among these were the following:

- a. The apparent lack of water quality research into possible intermediate and long-term effects on non-human population viability and dynamics.
- b. The lack of integration into the strategy of the work presently under development by the Agency and under review by the SAB, i.e., the review of site-specific water quality criteria.
- c. The need to validate the assumptions made in the extrapolation of inhalation data to ingestion exposure.
- d. The need to separate engineering and technology research issues for ground-water from those of surface water. For example, further investigations are needed into the technology for avoiding contamination between different aquifers resulting from widespread use of multi-aquifer wells.
- e. The overall water research priorities should be more clearly spelled out.

Pesticides Research Strategy

There were a number of concerns voiced by members in this area. Included among these were the following:

- a. There is a paucity of information about pesticide exposure in daily human activity patterns.
- b. More long-term research should be done with subjects potentially at greatest risk by reason of biological susceptibility, i.e., pregnant women and children.
- c. There should be some discussion regarding the need for or lack of need for control technology for the pesticides industry.
- d. The strategy is too general and could use a statement indicating the justification for selecting particular areas and directions of research.

Toxic Substances Research Strategy

A number of items in the strategy appeared to be overly ambitious, for example, the research into structure-activity relationships (SAR), proposed occupational health research, and research into stratospheric modification. There should be a sharper focus on what goals can actually be met in these areas during the stated time frames. Although the goals of the strategy are laudable, there is too little depth in the document for the members to adequately comment.

Superfund Strategy

The Subcommittee was concerned with two questions regarding mobile technologies:

- a. How will EPA define the mechanism for establishing technologies for intermediate-sized mobile facilities? Present mobile facilities are too small for a number of the kinds of problems encountered at Superfund sites.
- b. How will EPA deal with the problems of placing mobile facilities in densely populated areas?

The Subcommittee members also commented that the Superfund area was not receiving adequate research support by relying upon research conducted in other program areas. Because of that lack of research support, the SAB recommends that EPA and Congress work to amend the Superfund legislation to provide authority for separate research for Superfund-related activities.

Hazardous Wastes Program Strategy

The question was raised about problems arising from reclaiming "old fields" that were once extensively treated with pesticides. Because of the number of these "old fields," research into this area may be warranted.

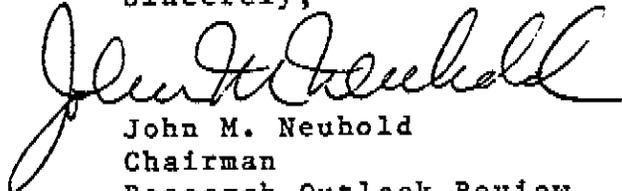
Exploratory Research

A strategy on exploratory research was not available for review. The Subcommittee expressed its concern that this important area be given a significant position in ORD's research strategy.

The Subcommittee members, as a whole, felt that they could not respond critically to the majority of the strategy documents because of their inability to get a coherent, overall picture of EPA's proposed research. It was suggested that EPA establish some reasonable criteria for writing future research strategies.

We hope that these comments have been useful to your office in the early preparation of the Research Outlook 1984. We look forward to receiving the draft Research Outlook in September 1983.

Sincerely,



John M. Neuhold
Chairman
Research Outlook Review
Subcommittee

cc: Alvin Alm