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**Testimony of Jeffrey P. Ruch**

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**Promoting Public Relations over Public Health:**

**Perspectives on EPA's FY 2007 Science and Technology Budget Proposal**

Before the

Environment, Technology, and Standards Subcommittee of the

U.S. House of Representatives' Committee on Science

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Good morning. My name is Jeff Ruch and I am the Executive Director of Public Employees for Environmental Responsibility (PEER).

PEER is a service organization dedicated to protecting those who protect our environment. PEER provides federal, state, local and tribal employees dedicated to ecologically responsible management with a safe, collective and credible voice for expressing concerns. Headquartered in Washington, D.C., PEER has a network of ten state and regional offices. Most of our staff and board members are themselves former public employees who left public service after experiencing ethical conflicts within their former agencies.

On a daily basis, public employees in crisis contact PEER. In our D.C. office alone, we average five "intakes" per day. A typical intake involves a scientist or other specialist who is asked to shade or distort the truth in order to reach a pre-determined result, such as a favorable recommendation on a project or approval of the commercial release of a new chemical. It is in this context that PEER hears from scientists working within the U.S. Environmental Protection Agency (EPA). My remarks reflect the input we have received from EPA scientists who are not afforded an opportunity to openly voice their concerns.

In this morning's testimony I have been asked by the Committee to comment on the relative strengths and weaknesses of EPA's proposed Science and Technology Budget. In addressing this topic, I will: 1) spotlight three structural weaknesses in the budget proposal; 2) analyze the priorities reflected by proposed budgetary cuts compared with proposed augmentations; and finally 3) focus on several emerging challenges that are not provided for in the budget plan.

## **I. Structural Weaknesses: Building on Sand**

Regardless of the particular budgetary levels, the paramount measure of a budget is whether it delivers value for what is expended. Thus, with respect to its expenditures on science, technology and research, the essential question is what the public is getting for its investment.

### **A. Politicized Science**

The failure of EPA to dispel concerns voiced by its own scientists, as well as outside observers, compromises the perceived value and reliability of agency science. The past several years have witnessed numerous instances in which EPA scientific work is altered, manipulated or suppressed (in “draft” status) for non-scientific reasons.

Rather than confront this issue, EPA shrinks from these questions or offers only bland, non-specific denials. Until EPA offers its scientists some meaningful protections for discussing emerging issues or reporting findings without prior political vetting, the agency’s entire science program will be tainted in the eyes of both the scientific community and the general public.

For example, in contrast with recent “open science” policies announced by the National Oceanic and Atmospheric Administration (NOAA) and the National Aeronautics and Space Administration (NASA), EPA has reiterated its policy of requiring prior headquarters approval for all communications by its scientists with the media.

In a February 9, 2006 email to all staff, Ann Brown, the News Director for the agency’s science arm, the Office of Research and Development (ORD), admonished –

“We are asked to remind all employees that EPA's standard media procedure is to refer all media queries regarding ORD to Ann Brown, ORD News Director, prior to agreeing to or conducting any interviews...Support for this policy also will allow reasonable time for appropriate management response.”

By contrast, less than a week earlier on February 4, 2006, NASA Administrator Michael Griffin sent an all-employee email in which he committed the agency to “open scientific and technical inquiry and dialogue with the public.” Mr. Griffin stated, “It is not the job of public affairs officers to alter, filter or adjust engineering or scientific material produced by NASA's technical staff.”

Ten days later, in a Valentine’s Day message to all staff, NOAA Administrator Conrad Lautenbacher wrote –

“Our media standards also reflect an open policy. We encourage our public affairs staff to keep abreast of media interests. I encourage our scientists to speak freely and openly. Dozens of you every day are talking to the media and providing the results of peer reviewed science across a wide variety of NOAA topics. We ask

only that you specify when you are communicating personal views and when you are characterizing your work as part of your specific contribution to NOAA's mission."

Why are scientists at NASA free to answer questions about global warming while their colleagues at EPA are not? Unless the EPA believes that science comes in Republican or Democratic flavors, agency scientists should be able to discuss findings without having to check whether facts comport with management policy.

### **B. Alienating Scientists**

In any organization, it is difficult to be successful without the support and cooperation of the staff required to implement the agency's programs. In EPA, its own internal surveys signal a growing disconnect between scientists and managers within its research program. Breakdowns in trust, communication and shared vision are beginning to threaten the nation's largest scientific organization dedicated to studying human health and the environment.

EPA's Office of Research and Development consists of three national laboratories, four national centers, and two offices located in 14 facilities around the country employing approximately 2,000 scientists. Internal surveys were taken in 1999, 2001 and 2003 to gauge "organizational climate."

While overall morale remains high, survey results show increasing doubts about the "competence" and trustworthiness of ORD leadership. With a 66% response rate, the latest survey (2003) found –

- Scientists' trust in leadership declines markedly at each step higher up in the chain-of-command, with 38% of staff scientists reporting distrust of laboratory managers versus only 23% who expressed trust;
- Less than one in three respondents (30%) felt that lab managers "address challenging situations competently;" and
- Barely half (56%) were optimistic about ORD's future.

In essays accompanying the survey, one scientist wrote "Despite email and the like, there is no real communication in the organization and no consistent mechanism to share knowledge." Another added, "A complete lack of communication exists leading to the strong distrust that is present today."

While these results may be the early warning signs of a scientific organization drifting toward dysfunction, ORD has stopped conducting these surveys. Nor does there appear to be any effort by the current ORD leadership to address trust and communication breakdowns.

Although these survey results predate the proposed 2007 Science & Technology Budget,

the proposed cutbacks in research funding will only aggravate trust and credibility concerns by agency scientists.

Significantly, PEER had to file suit under the Freedom of Information Act to obtain the surveys after ORD refused to release them. In July 2005, EPA surrendered the surveys and paid PEER's attorney fees and costs out of funds that should have been used for research.

### **C. Lack of Coherence**

In a different context, California Governor Arnold Schwarzenegger recently commented that a good bodybuilder could not focus on developing his chest, back and arms to the neglect of his abdominal muscles and legs. So, too, does EPA have to effectively address all areas affecting human health and the environment to have a coherent science program.

In a draft report issued almost exactly one year ago today, EPA's Science Advisory Board warned that the agency is no longer funding a credible public health research program:

“[R]esource constraints ...preclude EPA from conducting science in all the areas necessary for supporting effective environmental policy development.”

Among the deficiencies highlighted by SAB were ecosystem research, mercury and ammonia monitoring, human responses to toxic pollution and an array of emerging contaminants being introduced into the stream of commerce. Comparing the 2007 proposed budget with the one commented upon by the SAB, this coherence gap has only grown more profound, hobbling EPA's research program like the unbalanced bodybuilder.

## **II. Perverse Priorities**

The overall reduced funding levels in the Science & Technology Budget plan only magnify the impact of cuts as well as funding augmentations. A review of these shifts in funding shows increases in areas that appear to benefit corporate regulatory needs and cutbacks in areas affecting human health and basic ecological research.

### **A. Corporate Contributions Setting the Research Agenda**

EPA is increasingly relying on corporate joint ventures in its research program, according to agency documents obtained by PEER under the Freedom of Information Act. This trend, coupled with declining research budgets, suggests that EPA is diverting funds from basic public health and environmental research toward applied research to address regulatory concerns of corporate funders.

The records obtained by PEER show a marked increase in “cooperative research and development agreements” (or CRADAs) with individual corporations or industry associations since the advent of the Bush Administration. During the first Bush term EPA entered into 57 corporate CRADAs, compared with 34 such agreements during Clinton's second term. Corporate CRADAs executed during the Bush administration

outnumber those entered into with universities or local governments.

As a result of this trend, the American Chemical Council (ACC) is now EPA's leading research partner. In internal agency surveys, EPA scientists maintain that corporations are influencing the agency's research agenda through financial inducements. As one EPA scientist wrote, "Many of us in the labs feel like we work for contracts."

A classic example of recent EPA/corporate joint ventures is the 2004 agreement reached with the ACC to fund the now-canceled CHEERS experiment in which parents would have received payments and gifts in return for spraying pesticides and other chemicals in the rooms primarily occupied by their infant children. The object of this experiment was to test (through urine samples) the extent to which the chemicals were absorbed in to the infants' systems. The study protocol contained no provision for medical monitoring of subject children or any controls against improper chemical application by parents.

In return for its \$2 million contribution to CHEERS, the ACC obtained an agreement to expand the scope of the study beyond pesticides to include the exposure of the subject infants to flame retardants and other household chemicals.

As members of this Committee know, a Government Accountability Office study released in April 2005 concluded that EPA lacks safeguards to "evaluate or manage potential conflicts of interest" in corporate research agreements. No such safeguards are proposed for FY 2007.

Thus, under its current leadership, EPA is signaling its willingness to become an arm of corporate R & D in which the selection of agency research topics will increasingly be influenced by the availability of corporate underwriting.

#### **B. Winners and Losers in 2007**

An examination of the proposed changes in funding levels contained within the 2007 Science & Technology Budget reveals a pattern in which public health-related research is reduced while research with corporate regulatory applications is enhanced:

- Research on the toxic effects of pesticides on humans and the environment would be reduced by \$4.1 million while the proposed budget for registering new pesticides and re-registering existing chemical agents would grow by \$643,000;
- The climate protection program would lose approximately one-third (\$6.1 million) of its funding and research on air pollution's contribution to global warming would be also be cut by more than \$1.1 million. Support for corporate clean air trading credits would, by contrast, jump by three-quarters of a million dollars; and
- Support for work on human health and ecosystems would fall by almost \$10 million; research in land protection would lose more than a million dollars; and

agency efforts to promote sustainability (including appliance efficiency) would be slashed by nearly a fourth (\$7.2 million).

At the same time, the Science & Technology Budget proposes healthy increases in a number of Homeland Security-related areas. Regardless of the merits of these security-related programs, it appears that these new expenditures have come at the expense of longer-term environmental research.

### **C. Public Relations Budget Intact**

Despite these cutbacks in health and environment-related research, EPA is financing a “multi-year” public relations campaign, including public service announcements, video news releases plus “major events, tours and advance [work]” to “enhance [its] corporate image,” according to agency documents. The campaign began in 2004 and runs through September 2007.

This ambitious rollout features a media campaign called “Science for You” run out of ORD. The effort also includes –

- Operating a “radio and television news director science awareness program;”
- Placing “feature” media accounts;
- Developing a “print and virtual press media kit;”
- Conducting a “readership/product use survey;” and
- Operating a “Science Writer’s Circle” to enlist professional writers to re-write scientific tracts.

As part of this program, EPA surveyed what it considers to be “influential” news editors to assess their “awareness of and opinions about EPA’s scientific research program,” according to a copy of the questionnaire distributed this past November by JDG Communications, Inc., a public relations firm based in Falls Church, Virginia under contract to EPA. The survey consisted of 15 questions, including—

- “Do you feel that U.S. environmental policy is influenced more by political interest or research findings?”
- “When you receive information from EPA, do you think there is research behind this information?” and
- Asking editors to compare the scientific credibility of EPA against other entities, such as the National Science Foundation, the National Institutes of Health and the Centers for Disease Control and Prevention.

To the extent that EPA seeks to measure its scientific credibility, one would think that the agency should be surveying scientists rather than journalists. Of greater concern, however, is that this public relations effort is being financed out of funds that could otherwise be used for public health and environmental research.

At our request, the EPA Office of Inspector General has reviewed the legality of this program and concluded that it does not violate the Congressional prohibition on the use

of appropriated funds to generate “publicity or propaganda.” In a letter dated January 30, 2006, the EPA/OIG Director of Public Liaison informed PEER that the program as currently constituted was not illegal. We are seeking the basis of this conclusion through a pending Freedom of Information Act request.

One area that the EPA/OIG declined to review was the appropriateness of using research funds for public relations efforts. Since the OIG considers this question beyond its purview, it is incumbent upon Congress to consider whether EPA’s scarce research dollars ought to be shielded from diversion to public relations efforts.

#### **D. Research Without Libraries**

Under EPA’s proposed FY 2007 budget, the agency is slated to shut down its network of libraries that serve its own scientists as well as the public. Approximately \$2 million of a total agency library budget of \$2.5 million will be lost.

According to staff documents, the initial plan included shutting down the electronic catalog which tracks tens of thousands of unique documents and research studies that are available nowhere else. After this plan was revealed last month, EPA backtracked and pledged to restore the \$500,000 budget for the EPA Headquarters library and its electronic catalog, but this reversal will likely mean deeper cuts elsewhere in the library network.

EPA’s own scientists and enforcement staff are the principal library users. EPA’s scientists use the libraries to research questions such as the safety of chemicals and the environmental effects of new technologies. EPA enforcement staff use the libraries to obtain technical information to support pollution prosecutions and to track the business histories of regulated industries.

EPA currently operates a network of 27 libraries out of its Washington, D.C. Headquarters and ten regional offices across the country. The size of the cuts will force most of the libraries to shut their doors and cease operations. Each year, the EPA libraries –

- Handle more than 134,000 research requests from its own scientific and enforcement staff;
- House and catalog an estimated 50,000 “unique” documents that are available nowhere else; and
- Operate public reading rooms and provide the public with access to EPA databases.

This cutback stands in sharp contrast with President Bush’s plan to significantly increase “cutting edge” research as part of his “American Competitive Initiative” as it is not at all clear how EPA scientists are supposed to engage in cutting edge research when they cannot find what the agency has already done and must spend considerable time reinventing the proverbial wheel.

Access to information is one of the best tools we have for protecting the environment. In considering EPA's Science & Technology Budget, the Congress should also take into account the extent to which agency research will remain accessible to EPA's own staff, as well as to university scientists and other researchers.

### **E. High Cost of Going Partially Paperless**

While the Science & Technology Budget contains only a modest increase (\$95,000) in Information Technology Management, elsewhere in its budget, EPA is making a relatively large investment in what appear to be marginally useful and potentially disruptive information systems. In an effort to reduce paperwork, EPA is paying an estimated \$7.2 million to obtain 18,000 site licenses for something called the Enterprise Content Management System.

In addition to the licenses, EPA has committed itself to approximately \$4.3 million per year in ongoing maintenance cost (\$234.00 per person/per year X 18,000) for the system.

ECMS describes itself as "The official EPA content management program which includes software, hardware, policies, standards and guidance to manage unstructured information such as documents, records and web content." According to its PowerPoint presentation, this elaborate new information regime is supposed to "Reduce costs and improve efficiency; Improve institutional memory; Streamline processes; Manage workflows; [and] Automate records capture."

Despite this investment, the new system software will never be applicable to research records. Thus, the agency will have to maintain a wholly separate information system for its research programs—which constitute the bulk of the agency's paper holdings.

It is puzzling how an agency that can no longer afford to maintain libraries can afford to invest in new information systems that appear to be both costly and ineffective. For what the agency is spending on ECMS, EPA could, for example, restore its global warming research programs to previous levels.

## **III. Emerging Challenges**

The proposed FY 07 Science & Technology Budget does not appear to make any allowances for expenditures to address a series of emerging challenges confronting EPA.

### **A. Brave New World of Human Experimentation**

Under new rules that are slated to become effective April 7, 2006, EPA will welcome industry experiments using human subjects to test the effects of pesticides and other commercial toxins. In addition, EPA itself will be able to conduct or finance a broad range of experiments in which humans are exposed to potentially harmful chemicals.

According to its industry supporters, the new EPA rules will enable experiments on humans to replace reliance on animal studies. During the past decade, human testing has become central to the regulatory plans of the chemical industry. These companies are challenging the utility of animal studies and demanding that EPA use human subject tests



as the new safety benchmark. Because human tests cannot use the same high concentrations used in animal tests, companies can argue that there is no definitive proof of harm from the introduction of chemicals based upon small-scale human studies of dubious probative value.

The agency's latest plan is the product of a Congressional ultimatum this past summer to ban all future human tests until EPA finally adopted ethical safeguards. Congress acted after mushrooming controversy concerning the "CHEERS" study. In order to dissolve the Congressional human subject ban, EPA has offered a grudging plan that imposes few absolute safeguards. For example, EPA's plan would allow –

- Dosing experiments involving infants and pregnant women using any chemical (except pesticides). Thus, companies will be free to test other toxic agents, such as perchlorate, on nursing mothers;
- A repeat of the infamous (now canceled) CHEERS study because EPA pointedly omits any check against undue economic inducement, *i.e.*, paying poor people enough to lure them into signing informed consent papers; and
- Studies on orphans, mentally ill children and prisoners without informed consent.

We are not able to find funds reserved for staffing human subject review boards or for providing ethics training to agency scientists who will be involved in this burgeoning field of human experimentation.

In addition, there is another potential unplanned budgetary impact in the legal and financial liability of EPA and its contractors for human experiments conducted or sponsored by the agency in which subjects suffer harm. In a recent Maryland Court of Appeals case (*Grimes v. Krieger*, (2001) 362 Md. 623, 766 A.2d 147], Johns Hopkins University was held to answer for a study involving public health concerns associated with children and lead paint. The study looked at the lowest cost methods of effective lead abatement.

Aggrieved families of participants sued for damages from the effects of lead exposure. The lower court dismissed the suit but Maryland's highest court reinstated the claim, writing –

“We hold that in Maryland a parent, appropriate relative, or other applicable surrogate, cannot consent to the participation of a child or other person under legal disability in nontherapeutic research or studies in which there is any risk of injury or damage to the health of the subject.”

The experiments in the *Grimes* case parallel the type of experiments to which EPA will be throwing open its doors. Neither its researchers nor its Office of General Counsel have formally considered policies and practices to minimize agency (and thus taxpayer) liability for the hundreds of new human studies expected to be conducted each year.

## **B. Waves of New Chemicals**

Each year, an estimated 1,700 new chemicals are introduced into the stream of American commerce. EPA has no mechanism to regulate these new chemicals. Even more fundamentally, EPA's research program is not equipped or funded to monitor these new chemical agents.

The consequences of this huge blind spot are illustrated by the case of perfluorochemicals, better known as PFC's. Introduced by 3M in products such as Scotchgard, Teflon, Stainmaster and Gore-Tex, the chemicals are now widely distributed across the globe. This highly toxic and persistent class of chemicals can now be found in the blood of over 95 percent of Americans. PFCs have been linked to developmental defects, high cholesterol, and immune disorders.

Without the ability to carefully monitor the chemical and conduct strict oversight to accompany voluntary phase outs that EPA negotiated earlier this year with 3M, DuPont and other companies, these toxic chemicals will continue to pollute people, their food, and their environment with unknown adverse effects.

Each year, a new chemical horror story is unfolding but the agency charged with protecting the environment is more than a day late and a dollar short. If EPA is ever to get a handle on the threats posed by what are called "emerging contaminants" there must be both a dedicated commitment of funds and agency leadership.

Unfortunately, a review of the proposed Science & Technology Budget suggests that neither the funds nor the leadership will be available.

## **C. Candor Backlog**

Even as waves of new chemicals are being introduced, EPA has been mired in assessing known chemicals and their impacts. For example, the EPA Reassessment of Dioxin and its effects has been kept in draft form since 1994. Thus, agency decisions on one of the most persistent and widespread pollutants has been held hostage for 12 years by political complicity to corporate pressure.

Similarly, under Defense Department and defense contractor pressure, EPA delayed setting standards for perchlorate, a chemical found to contaminate hundreds of drinking water aquifers in more than 20 states. The resulting overdue standards were so weak that affected states, such as California and Massachusetts, are adopting their own, much stricter standards.

So long as the publication of EPA scientific findings (unaltered by politics) remains so vulnerable to corporate and inter-agency manipulation, the Science & Technology program will be relegated to producing useful work only around the margins, timidly leaving the major public health and environmental challenges for others.

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