



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF THE ADMINISTRATOR
SCIENCE ADVISORY BOARD

November 5, 2008

EPA-SAB-09-003

The Honorable Stephen L. Johnson
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Subject: Science Advisory Board's Homeland Security Advisory Committee's Concern
on the Agency's Development of the *Bacillus anthracis* Technical Assistance
Document

Dear Administrator Johnson:

On October 15, 2008 the Science Advisory Board's Homeland Security Advisory Committee (HSAC) convened a public meeting via teleconference to receive a briefing from the EPA and its Federal partners on their plan to update a Technical Assistance Document (TAD) on *Bacillus anthracis* (*b. anthracis*). Following the 2001 and 2002 *b. anthracis* clean-up/decontamination efforts for the Capital Hill and postal offices, the first version of the TAD was developed under the direction of the National Response Team (NRT). Because *b. anthracis* has become a high-priority issue for the EPA and its Federal partners, the TAD requires revision so as to incorporate more current knowledge.

The HSAC appreciates the opportunity to have an early awareness of this effort and thanks the Office of Solid Waste and Emergency Response, the EPA's representative to the NRT, for conducting that briefing and seeking our individual thoughts on revising the TAD. I hope that our input will be helpful in developing the revised TAD, as we realize this project is a vital undertaking, utilizing the skills of experts from several federal agencies who comprise the task force.

Nonetheless, several Committee Members, myself included, were distressed at the lack of systematic, scientific attention to communicating with the public. I would like to put in writing the reasons for our concern. It is not unique to this anthrax project, but reflects a general problem in our national emergency planning – which has been raised in previous HSAC consultations

(including ones regarding the Emergency Consequence Assessment Tool (ECAT), the WaterSentinel Program and the Standard Analytical Methods (SAM) Program) and posted on the SAB web-site.

The objectives of our enemies include terrorizing the American people, in ways that undermine its faith in its leadership, and undermining our economy, by disrupting our normal patterns of living, working, and trading.

As we saw in 2001, a *b. anthracis* (“anthrax”) attack has enormous potential for achieving our enemies’ goals, even when causing relatively few casualties.

Much of that damage came from our own inability to communicate credibly, causing needless concern and distrust that persists to this day. Our response to a future attack will be viewed on the background of that historic experience, meaning that the burden of proof will be on national and local authorities (including incident commanders) to establish their competence and honesty (the two elements of trustworthiness).

Thus, however conscientious and technically sound the work of incident commanders (the target audience for the anthrax TAD), they will be judged by their words, as well as their deeds. Their trustworthiness will be tested at every stage of the process, from initial response to return to use. Any misstep in communication can do irreparable damage to trust, sending citizens to other information sources, often with less expertise and other agendas.

Losing the public trust will also compromise incident commanders’ ability to do their work. Citizens will be less likely to follow their instructions and more likely to force them to take needless precautionary actions. Whether through direct pressure, media-fanned issues, or threats of electoral reprisal, citizens will be active “players,” in how the response proceeds.

Incident commanders may have the advantage of knowing some local conditions and people. However, it is highly unlikely that they will be prepared to talk to diverse lay audiences about the unique problems posed by an anthrax attack. Even if they have total command of the technical details, incident commanders will not know their audience. Nor will local public affairs staff be able to help them, because they will understand neither the science nor the audience (in terms of its information needs for this unique situation).

Local authorities cannot be expected to prepare for this, thankfully rare, contingency. As a result, their communications will be improvised, based on intuitions. A very large body of research has shown that such intuitions are not to be trusted – as affirmed by our national experience in 2001.

The only way to prepare is to have, on hand, an inventory of scientifically sound communications (pre-scripted press releases, print and electronic explanatory materials, guides to self-testing, FAQs, etc.), ready for adaptation to specific circumstances. “Scientifically sound” means (a) grounded in the large research literatures on risk perception and communication and (b) subject to rigorous empirical evaluation (because intuitions are not to be trusted).

Communications research planning is not expensive. However, it requires a skill set that is not represented in the anthrax TAD task force. Nor is it present in most other parts of our

national response effort. As a result, much of what passes for risk communication advice has no scientific foundation. Rather, it is cut and pasted from one place to another, without any understanding of its provenance – paying unwitting lip service to a task that should be central to our mission.

I predict that, as currently conceptualized, the sub-bullet on communications in Chapter 5 of the draft TAD outline would lead to no more than perfunctory action. As a result, it would incur the very large opportunity costs of acting as though our communication responsibility has been fulfilled – when the public and the incident commanders have been denied needed tools for managing an attack.

Under these constraints, I believe that the anthrax task force must (a) clearly define the centrality of communication to the execution of the technical activities described in the TAD and (b) demand the investment in scientifically sound communication.

To repeat a phrase that I used during the October 15th conference call (and use all too often in other advisory settings), “...until we treat communication with the public as central to our national strategy, we are doing our enemies’ work for them.” We need to do better. I welcome the opportunity to help the anthrax task force address this central aspect of its mission.

Sincerely,

/Signed/

Dr. Baruch Fischhoff, Chair
Homeland Security Advisory Committee
EPA Science Advisory Board

cc: Dr. Deborah Swackhamer, Chair
EPA Science Advisory Board