## The Polygraph vs. National Security

There may be a serious problem at the Department of Energy National Laboratories, one that goes beyond missing hard drives, credit-card fraud, and sloppy handling of classified computer codes. The Labs' raison-d'être -- what management likes to say distinguishes them from crass commercial enterprises – is their claim on selfless objectivity: providing "service in the national interest based on sound science" despite the ebb and flow of political tides. If my recent experience is any reflection, this code of conduct is conditional.

More than four years ago, in the wake of the arrest of Wen Ho Lee on espionage charges, then-DOE Secretary Bill Richardson imposed a sweeping polygraph program, ostensibly to identify spies. Scientists objected strenuously, as they knew that polygraphs had never caught a spy – not even Aldrich Ames, who had passed his CIA polygraph at least 5 times – but that they do destroy careers and morale. Sandia Lab's President Paul Robinson ordered his small group of senior scientists to review publications on polygraphs in order to make recommendations to the Secretary. The seniors concluded that polygraphs were worse than worthless. Their report to this effect was, however, ignored. Followon letters to Richardson and the Chairman of the Senate Intelligence Committee opposing the expanded polygraph program went unanswered.

As the only senior scientist who had also practiced medicine, I knew that continuation of polygraphs was going to be a disaster for individuals at Sandia and elsewhere in the DOE complex. And indeed it was. Within a few months Sandia employees began contacting me with tales of unconscionable abuse: Polygraphers were asking detailed questions about medical histories and medications (both are of no proven relevance to outcome of the polygraph test), and were engaging in 4-hour-long inquisitions, accusing staff of lying and revealing classified information. Employees who flunked their first polygraph were brought back a second, or even third, time for more of the same, and were denied legal representation, or even independent review of the videotapes of their sessions. But no employee dared appeal to the DOE or to Laboratory managers because they feared for their jobs. As one Sandia scientist of 26 years wrote to me: "if the Lab and DOE are permitting the polygraphers to do this to me in the first place, what reason is there in complaining?"

It got even worse. In February of 2003, David Renzelman the head of the DOE polygraph program said at a meeting of DOE counter-intelligence officials that he "liked to see lab geeks squirm" when they were strapped to the polygraph chair. Renzelman's bluster came on the heels of a National Academy of Sciences study – specifically designed to evaluate polygraphs in the DOE labs – that concluded that "[the polygraph's] accuracy in distinguishing actual or potential security violators from innocent test takers is insufficient to justify reliance on its use in employee screening." The NAS panel further stated that "polygraphs have no place in *any* federal agency," and -- much as the Sandia senior scientists had warned -- that there was no chance that polygraphs would ever catch a spy, but every chance of their undermining security. Renzelman was fired in March, but only after his garish disrespect for science became public, and an embarrassment to DOE that could no longer be hidden, thanks to an anonymous counterintelligence staffer who revealed the incident in an unsigned letter to officials.

At the same time, Richardson's replacement Spencer Abraham was required to appear before Congress to comment on the Academy report. In early March he sent a note to the Directors of the National Laboratories stating that he had "delayed" his testimony and the making of any decision on polygraphs because of "pending hostilities in Iraq." That turned out to be untrue, because within a week, DOE published a Federal Register notice of its intent to continue the polygraph program, asserting that polygraphs are "a tool that appears in current circumstances well-suited" to security goals.

Scientists everywhere were aghast. Donald Kennedy, editor of the prestigious magazine Science, wrote: "In its Notice of Proposed Rulemaking ... DOE

referred to the report but said that although the academy's recommendation might be all right for the academy, its own mission was different, so the judgment couldn't apply to it! ... it's just bad science." The Lab directors were nonetheless silent. So much for logic and reason at DOE and its labs.

As a physician, I felt obliged to put pressure on the Secretary to reconsider his decision even if the Lab Directors were unmoved; after all, people were (and still are) getting hurt. And so I wrote an editorial piece published in The Washington Post recounting these events ("Polygraphs: Worse Than Worthless," May 27, 2003). Within days, my supervisor at Sandia, Dori Ellis, placed me on disciplinary suspension without pay, accusing me of "insubordination." When I returned to the Lab, she also banned me from working on a counter-terrorism software tool that I had invented and developed over the prior four years, and which was nearing technology transfer to the public domain. The Rapid Syndrome Validation Program (RSVP) enabled physicians all over the country to report unusual disease outbreaks quickly, and it had operated successfully in three states, was utilized by hundreds of doctors, and was a subject on which I had testified before very supportive Congressional committees on four separate occasions. I reported Ms. Ellis' retaliatory banning order to my colleagues at the New Mexico Department of Health who had helped me design and test RSVP, and notified her that I was ethically bound to do so, while continuing to speak out on polygraphs in public forums, as scientific reason, on that issue, had failed. She again placed me on disciplinary suspension a week later. When I appealed to Sandia's president, and he didn't respond to phone calls or letters, I resigned. It wasn't too difficult to read the handwriting on the wall. Unsurprisingly, RSVP now languishes, gathering dust on a shelf.

Why did Lab management react so strongly to my polygraph protest? There is only one credible explanation: If DOE dumps polygraphs, the other US government agencies that have long used them – CIA, NSA, and the FBI – look pretty silly by comparison (and indeed they are if they place the slightest reliance on the polygraph). Much better to ruin a few scientists' careers than trouble the Cabinet officials and agency administrators responsible for the internal integrity of our front-line intelligence agencies, even if sparing them will undermine security not only at the Labs, but at all of the agencies still hanging their hats on the aggressively counterproductive polygraph. So it's a good bet that DOE put pressure on the Lab to muzzle me, and then, when the muzzling failed, exerted pressure to get rid of me.

Sandia's "corporate values" emblazoned in its employee handbook and on placards in just about every nook, bathroom and cranny at the Lab are: "Integrity, Quality, Leadership and Respect for the Individual. "But it appears that these values only go so far as political expediency – and protecting a budget of \$2.2 billion – permit. There is no doubt that Sandia scientists do many good things (as would expected with such generous funding) but perhaps over the last few years the Lab has evolved into a middling, even mediocre bureaucracy that is willing to dismiss uncomfortable scientific facts, sacrificing its staff members' careers at the altar of Congressional largesse.

That's a dangerous indoctrination for new Lab employees, for we will depend on their commitment to objectivity in order to maintain the safety and security of our nuclear stockpile. There can be nothing conditional about that.

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