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**UNITED STATES DISTRICT COURT  
DISTRICT OF NEW JERSEY**

Adam M. Finkel,	)	Civil Action No. 05-5525 (MLC)
Plaintiff,	)	
v.	)	Hon. Mary L. Cooper
	)	
The United States Department	)	
Of Labor and	)	
Occupational Health and Safety	)	
Administration,	)	
Defendants.	)	

DECLARATION OF ADAM M. FINKEL, Sc.D.

***A. Personal Background***

1. I am Dr. Adam M. Finkel. I am making this declaration in support of my requests for disclosure of information from the U.S. Occupational Safety and Health Administration (OSHA) that I need for critical scientific research and analysis.
2. I am a Professor of Environmental and Occupational Health at the University of Medicine and Dentistry of New Jersey (UMDNJ) School of Public Health in Piscataway, New Jersey, and a Visiting Professor of Public Affairs at the Woodrow Wilson School of Public and International Affairs in Princeton, New Jersey (WWS).
3. I have a doctoral degree in Environmental Health Sciences from the Harvard School of Public Health (1987), a master's degree in public policy from the John F. Kennedy

School of Government (1984), and an undergraduate degree in biology from Harvard College (1979). I am a Certified Industrial Hygienist. I am recognized as a national expert in quantitative risk assessment and environmental/occupational regulatory policy, having published more than 50 scientific papers on these subjects (approximately 35 of which were peer-reviewed), having served on several committees of the National Academy of Sciences, and having received numerous awards and fellowships. For example, in 1998 I received the Chauncey Starr Award from the Society for Risk Analysis (“honoring an individual under age 40 who has made outstanding contributions to the field of risk analysis”). In 2005, I was named one of the “Sigma Xi Distinguished Lecturers” for 2006-2008, an opportunity to travel to Sigma Xi (the national engineering honor society) chapters around the U.S. to lecture on science-policy topics. In November 2006, I will receive the David P. Rall Award for Advocacy in Public Health, one of the few association-wide awards given by the 50,000-member American Public Health Association—the award is given for “a career in advancing science in the service of public health protection.” A true and correct copy of my current curriculum vitae is attached as Exhibit 1.

4. I currently teach three courses at UMDNJ and WWS, one on the fundamentals of risk assessment (primarily for students with medical and public health degrees), one on scientific and economic input to federal regulation (for Master of Public Administration candidates), and one on statistical methods for medical and environmental decision-making (for Princeton undergraduates and graduate students).

5. I am engaged in a portfolio of research to bring sound scientific and economic analysis to decisions on how and to what extent to control hazards to health, safety, and the environment. For example, I recently wrote an article on the scientific, legal, and ethical dilemmas created by our new ability to estimate risks to individuals based on their genetic predisposition to disease (*Protecting People in Spite of—Or Thanks To—the ‘Veil of Ignorance’*, chapter in **Genomics and Environmental Regulation: Ethical, Legal and Policy Issues**, Johns Hopkins Univ. Press, 2006, Gary Marchant, ed.). This fall, I was awarded a large (approx. \$750,000) grant from the National Science Foundation, to conduct a three-year study (with researchers from Princeton, Resources for the Future

(RFF), the University of California, and others) on how regulatory cost estimates could be improved by adopting the approaches that risk analysts commonly use to quantify uncertainty and explore the differing risks that different people face. Much of my previous research (primarily conducted at Harvard University and at RFF, a non-partisan Washington think-tank specializing in environmental policy) has pioneered methods to quantify uncertainty (to what extent could risks to the public be larger or smaller than any single-number risk estimate acknowledges?) and variability (to what extent do particular persons face larger or smaller risks than those faced by the average person, as a consequence of their exposure and/or susceptibility?). My work under the NSF grant will adapt these techniques to the study of the “cost side” of cost-benefit analysis. My intent is that this work will improve the accuracy and quality of cost estimates used in making important regulatory decisions affecting public and workplace health and safety.

6. Although I have at times advocated for particular policies and positions (for example, as OSHA’s chief regulator from 1995-2000 I vigorously defended OSHA’s regulatory conclusions before Congressional committees, courts, and groups of stakeholders), I adhere above all to the professional norms of the communities of scientists to which I belong. The scientific method compels us to examine and disclose our ingrained assumptions in considering all the evidence available, and to be forthright about uncertainty and the possibility and consequences of error. For example, I was the Department of Labor’s voting representative on the National Toxicology Program Executive Committee from 1995-2000, and in that capacity I made numerous judgments about which substances did and did not deserve to be categorized as “known human carcinogens” by the U.S. federal government. I made these judgments as a scientist, even when they happened to be favorable to industry’s interests and were criticized by my own staff [attached as Exhibit 2 is a true and correct copy of a recent journal article by a former OSHA employee, taking strong issue with my views on one of these cases—see esp. reference 23 in that article]. To my knowledge, none of my scientific papers has ever been impeached for any deficiencies in analysis. I also believe strongly that the privacy rights of individuals often should outweigh the desire for scientific certainty and completeness, even when the information could be used to save the lives of the individuals involved or of others. Among other activities, I was OSHA’s representative

on an interagency group that drafted the Executive Order (#13145, signed by President Clinton in February, 2000) on “Prohibiting Discrimination in Federal Employment Based on Genetic Information.” I have been certified by the National Institutes of Health as having completed a course (“Human Participant Protections Education for Research Teams”) in the proper safeguarding of data derived from human tests or interviews. I am absolutely committed to protecting the privacy of the data I should receive from OSHA, in accordance with all the scientific, professional, and ethical norms I have followed throughout my career as a scientist.

### ***B. Overview of this Declaration***

7. This declaration is in support of two related requests I made under the Freedom of Information Act (FOIA) in 2005. Both requests were for data contained within “the Salt Lake database”—a computerized database of chemical sampling results that OSHA has collected during the course of inspecting U.S. workplaces, and that it has maintained and continuously updated for at least the past 27 years.<sup>1</sup> I filed the first request on June 28 of 2005; in it, I asked OSHA for data on sampling results for a single substance—beryllium—and for redacted medical records indicating the anonymous results of blood tests performed on OSHA inspectors for health effects related to beryllium exposure. On August 12, 2005, having received no response from OSHA (other than acknowledgment that the Agency did receive my request on June 28), I filed an appeal of the constructive denial of my request with the Solicitor of Labor. Also on August 12, I filed a second FOIA request with OSHA, asking for selected data fields for all of the sampling data (i.e., for all substances, of which beryllium is one out of approximately 1600) contained in the Salt Lake database. On September 20, having received no response from OSHA on this second request, I filed another appeal with the Solicitor of Labor. As of this writing (October 11, 2006, nearly 16 months after filing the original request), I have received none of the information requested in either of my FOIA filings, with the exception of one

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<sup>1</sup> The database is managed at OSHA’s Salt Lake Technical Center (SLTC), and is one of the databases comprising the “IMIS” (Integrated Management Information System). Although some outside observers have referred to the sampling database as “the IMIS database,” the IMIS also contains separate databases concerning violations and penalties, accident investigations, etc. I will therefore refer within this declaration to the chemical sampling database as “the Salt Lake database” or simply “the database.”

text file I just received (on October 2 of this year), containing approximately 5% of the data requested. Even that small portion was heavily redacted, and converted—at not-insignificant effort on OSHA’s part, by the way—from its “native” form (a relational database, designed to be manipulated with common software such as “Microsoft Access”) into a form (a text file) that will make even the initial appraisal of the data needlessly difficult.<sup>2</sup> All of the research I intend to conduct using these data will contribute significantly to public understanding of the workings of OSHA and of the risks posed by substances it does or does not regulate. *Some of the research is also aimed at providing potentially life-saving information to OSHA’s own workforce, regarding a serious disease for which prompt diagnosis is vital.* Therefore, OSHA’s continued resistance to disclosing the requested information is having serious consequences that go well beyond the legal issues of FOIA.

8. The remainder of this declaration will consist of 10 sections: (C) a summary of my previous employment as a senior executive at OSHA between 1995 and 2005; (D) some background information on the magnitude of the occupational health and safety problems that OSHA was established to address, and the relevance of the data I have requested to helping OSHA fulfill its statutory mission; (E) a chronology of a lawsuit I filed against OSHA alleging whistleblower retaliation taken against me in connection with the beryllium medical testing program at OSHA, culminating in a Settlement Agreement between me and the Department of Labor; (F) a discussion of the nature and purposes of my first FOIA request, and an explanation of how my scientific research will be thwarted without release of all the data requested; (G) a similar discussion of my second request; (H) an acknowledgment that the Department of Labor has agreed to waive all fees connected with my two requests; (I) a summary of my experience receiving portions of the Salt Lake database while an OSHA employee, as an indication of the ease with which the data can be provided in various desired forms; (J) a summary of OSHA’s clear and consistent policy statements that the information I have requested is in fact “routinely

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<sup>2</sup> Also on Oct. 2 of this year, OSHA sent me a second CD, which according to OSHA contained some of the remaining data requested in my second filing (also heavily redacted, according to OSHA’s explanation of the contents of the disk). However, none of the computers at the WWS Office of Information Technology was able to open any of the files that might have been contained on this disk, and OSHA has not yet answered any of our requests for a readable version of this disk.

disclosable” under FOIA; (K) a summary of some of the past instances where OSHA has already released substantial portions of the data I have requested, either in response to FOIA requests or to informal requests not invoking FOIA; (L) an explanation that there are no legitimate privacy concerns created by the release (as evidenced by previous releases I have documented) of the encrypted identification codes contained in the Salt Lake database and assigned to each OSHA inspector; and (M) a statement of conclusions. At the end of the Declaration, I have provided a glossary of acronyms and technical terms used within the Declaration.

### *C. Employment at OSHA*

9. From March 1995 until December 2005, I was a senior executive at OSHA. Of OSHA’s approximately 2200 employees, roughly 18-20 senior managers are career members of the Senior Executive Service (SES), as I was during my entire employment at OSHA. I reported to the Assistant Secretary of Labor for OSHA (OSHA’s chief official, a political appointee of the President), although at various times the Deputy Assistant Secretary was nominally my supervisor.

10. From 1995 until 2000, I was OSHA’s Director of Health Standards Programs, and was responsible for developing and promulgating all of OSHA’s regulations addressing chemical, biological, and ergonomic hazards in the nation’s workplaces. I supervised approximately 45 employees in this position, most of them scientists. I am particularly proud that although OSHA had not promulgated a single health regulation between 1992 and 1995, and did not promulgate a single one between 2000 and 2006, the Agency issued four major health regulations during the period when I was Director of Health Standards. These regulations were enthusiastically supported by labor unions, workers, and other public-interest groups, and although several of the many provisions within them were opposed by industry, none of the regulatory provisions that industry challenged in court were invalidated or remanded to the Agency during my tenure.

11. As Director of Health Standards, I also worked closely with industry groups on numerous occasions, to craft negotiated rules and establish creative partnerships in lieu of adversarial regulatory outcomes. I often did so against the objections of many on my own staff and some of my SES colleagues, who often told me they objected to my “getting in bed with industry.” For example, I created the “Health and Safety Partnership Program” (HSPP) with the major manufacturers of fiberglass insulation and the major industry trade associations representing fiberglass users. Attached as Exhibit 3 is a true and correct copy of a letter that the head of OSHA received in 1999 from the attorney representing the fiberglass manufacturers, commenting on my relationship with his clients; attached as Exhibit 4 is a similar letter from an executive with the trade association of fiberglass manufacturers. The HSPP showed that by recognizing the legitimate constraints under which industry operates, and by providing incentives to free up their resources for bottom-line improvements in health and safety, rather than mere compliance, government can create more benefits for workers than it could achieve through confrontational approaches. An industry Website explaining the benefits of the HSPP to both companies and workers can be accessed at <http://www.naima.org/pages/benefits/hspp/hspp.html>. I established analogous partnerships with various industries who use styrene (e.g., boat-builders), and with the manufacturers and installers of refractory ceramic fibers.

12. I believe that based on my academic record and my productive relationships with many individuals and associations in industry, many leaders in this community understand that my purpose in requesting data that OSHA has collected is in no way inimical to their activities. I note, for example, that the public comments submitted to OSHA by Brush Wellman Inc., the dominant U.S. producer of beryllium (a true and correct copy of which is attached as Exhibit 5), express no concern about my learning the concentrations of beryllium present in identified establishments of theirs or their customers, only that the sampling data not be further identified by job title or process description (two data fields I did not ask be included in my FOIA requests). Beryllium is the single substance in the database that is most controversial, guarded in terms of process confidentiality, and fraught with liability concerns (see below)—and so I interpret this conditional endorsement of my request by the major beryllium producer as

due at least in part to the company's familiarity with my reputation for objectivity and interest in public-private partnerships.

13. I have established mutually advantageous relationships with some of the most ardent opponents of toxic-substance regulation from within industry, probably because of my strong support for cost-benefit analysis as a common ground whereby regulatory policies can be debated on their merits. Although I am well-known for advocating a precautionary approach to interpreting uncertain science to favor more stringent protections (having written a minority report in a landmark National Academy of Sciences committee report to this effect), industry advocates seem to respect my commitment to weighing all the evidence and listening to alternative views, and my efforts to craft regulatory solutions that achieve results at the least possible economic cost to industry. For example, in a letter of support for a professorship I sought in 2003, Dr. Dennis Paustenbach (a prominent toxicologist who consults exclusively for industry) wrote:

Dr. Finkel's skills are not limited to his intellectual prowess. He has also shown himself to be a capable administrator and one who can bring together opposing views to reach reasonable compromises. As Director of Health Standards at OSHA, he had numerous successes in bridging differences between unions and the regulated community.... In particular, I found his recommended approach for revising and updating the severely outdated workplace exposure limits to be thoughtful, highly supportive of cutting-edge science, and in the best interests of the American workforce. It is regrettable that the Agency was not ready to embrace his recommendations.

14. From 2000 until 2003 I was Regional Administrator (VIII), the chief OSHA official in the Rocky Mountain region (Colorado, Montana, North Dakota, South Dakota, Utah<sup>3</sup>, and Wyoming). In that position, I supervised more than 100 employees, and oversaw the activities of many others, including state employees who worked on OSHA-funded enforcement and consultation programs. As Regional Administrator, I established several regional enforcement priorities based on my analysis of some air sampling data provided by the Salt Lake lab (see Paragraphs 50-51 below), represented OSHA in various

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<sup>3</sup> Please note that although the OSHA Salt Lake Technical Center (SLTC), where the chemical sampling data are analyzed and maintained (see Paragraph 39 below), is located within the boundaries of Region VIII, I had no supervisory authority over any of the Lab's personnel. The SLTC is part of the Directorate of Science, Technology, and Medicine, and reports to an SES manager in Washington, D.C.

negotiated settlements with companies who had violated OSHA standards, and revived the Region's moribund Voluntary Protection Program (a national program under which OSHA recognizes companies with exemplary health and safety records). I placed particular emphasis on creating local and regional partnerships with industries that challenged them to actually track and reduce their injury rates (in return for streamlined enforcement by OSHA), rather than merely to participate in "photo ops" with Agency leadership. In these initiatives, I worked to ensure that companies, particularly those in the commercial and residential construction sectors, took responsibility for tracking injuries suffered by employees of their subcontractors, even though that would have not been required absent a partnership with the Agency. Exhibit 6 is a true and correct copy of an article in the *Bureau of National Affairs Occupational Safety & Health Reporter* newsletter, discussing some of the initiatives I emphasized as Regional Administrator in Denver.

***D. Importance of OSHA's Mission and Concerns About OSHA's Ability to Fulfill It***

15. OSHA has a vital public mission: to protect more than 120 million U.S. workers from an array of both obvious (e.g., walking hundreds of feet above the ground on narrow steel beams) and hidden (e.g., inhaling millions of asbestos fibers each day at work) hazards to their lives and health. I came to OSHA having already pioneered methods for assessing the relative importance of risk-reducing programs. I co-authored a 1994 book ***Worst Things First? The Debate Over Risk-Based National Environmental Priorities*** on this topic. I believed then, as I do now, that no other federal agency has a greater opportunity to save lives than OSHA does. Simply put, the problems are huge, some of the successes to date (e.g., the virtual elimination of a former epidemic of "brown lung" disease in the cotton textile industry) have been impressive, and the remaining (and the newly-emergent) problems can be solved with readily-available controls. However, recent signs suggest that OSHA has begun to lose the ground gained—as the following eight paragraphs will summarize.

16. The annual death toll from industrial accidents can be estimated rather precisely. Each year, roughly 5500 U.S. workers die on the job from exposure to safety hazards, particularly fatal falls, entombment in unsafe trenches, and being struck or crushed by objects in the workplace. After a period of at least 32 years in which the annual occupational death rate decreased each year without exception, the rate stopped decreasing in 2002, and rose slightly between 2003 and 2004. Exhibit 7 is a true and correct copy of a posting from the Weblog “Confined Space,” providing a partial listing from media sources of the fatal workplace accidents during a one-week period in August 2006, to show the range of these tragedies and some representative details of each.<sup>4</sup> Note that of the 57 deaths mentioned in this “weekly toll,” all but one of them (the fatal poisoning in Rifle, Colorado) involved safety hazards rather than health hazards, demonstrating that the former hazards are disproportionately featured in media accounts and official statistics, despite the preponderance of premature deaths in the workplace that are caused by health hazards (see next paragraph).

17. All of the available peer-reviewed scientific evidence agrees that the number of U.S. workers who die prematurely due to diseases (such as cancer, chronic lung disease, neurological dysfunction, etc.) caused by occupational exposures to toxic substances dwarfs the number who die in accidents. Attached as Exhibit 8 is a true and correct copy of a recent article in the *American Journal of Public Health*, which discusses this disparity, and references the seminal scientific study on this issue by Leigh et al. (*Archives of Internal Medicine*, 1997, ref. 1 in Exhibit 8). Leigh et al. estimated that there were roughly 60,000 premature deaths each year due to work-related exposures. This number is larger than the number of Americans who die from HIV/AIDS, ovarian cancer, asthma, and homicides combined.

18. I have found, via a preliminary analysis of a small portion of the OSHA air sampling database that I received while Regional Administrator (see Paragraphs 50-51 below), that the average concentrations of many toxic substances that still prevail in U.S. workplaces are more than 1000 times the concentrations of the same substances in the general

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<sup>4</sup> This “blog” offers an array of editorial commentary about worker safety and health and about OSHA; note, however, that this particular posting is simply a compendium of fatality reports drawn verbatim from newspaper and other media sources.

environment (thanks in part to a much more successful campaign by the U.S. Environmental Protection Agency (EPA) to regulate industrial emissions of these substances). This disparity persists even for the very few toxic substances (there are only about 25 substance-specific OSHA health standards, out of over 70,000 chemicals in commerce) for which OSHA has issued a regulation restricting workplace exposures; for the vast majority of other substances, the disparities between occupational and environmental concentrations are even more dramatic. For example, I have estimated that the average concentration of perchloroethylene (a carcinogenic solvent commonly used to dry-clean clothes) in U.S. workplaces is roughly *one million* times greater than it is in the outdoor environment. I have not published these estimates (although I have presented them as a paper entitled “Kilo-Disparities: Prevailing Concentrations of Toxic Air Pollutants in U.S. Workplaces *versus* the Ambient Environment” at the annual meeting of the Society for Risk Analysis in December 2005—see <http://birenheide.com/sra/2005AM/program/singlesession.php3?sessid=M23&order=2#2>) because truly representative and reliable estimates must wait until I have access to the complete dataset I have requested from OSHA.

19. Many of the most dangerous substances in U.S. workplaces can be reduced toward acceptably low concentrations using simple control technologies that impose trivial costs on producers and consumers. For example, when OSHA (in 1997) reduced the permissible exposure limit (PEL)<sup>5</sup> for methylene chloride (a common solvent that causes cancer in laboratory animals and that can exacerbate heart disease in workers) from 500 parts per million (ppm) to 25 ppm, we demonstrated that many establishments could comply with the new limit simply by installing electric fans to increase ventilation, and/or by providing workers with long-handled brushes to strip paint from furniture, rather than forcing them to lean into the tanks containing methylene chloride.

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<sup>5</sup> The PEL is the cornerstone of the regulatory limitations OSHA has set for those few substances it has regulated since 1970; employers who are found to have workplace concentrations above a PEL are subject to monetary penalties, although in most cases the inspector is required to document that the concentration exceeded the PEL over a full eight-hour workshift, by taking samples of eight hours' duration.

20. As mentioned above, in the seven years since I was no longer Director of Health Standards, OSHA has promulgated only one final health standard (hexavalent chromium, produced under a strict deadline set in 2003 by the U.S. Court of Appeals for the Third Circuit). Therefore, occupational hazards known to scientists for hundreds of years (as in the case of silica dust, among others), as well as those only introduced or recognized very recently (as in the realization several years ago that diacetyl, an ingredient in artificial butter flavoring, can cause a fatal lung disease in workers who handle it) remain either unregulated or weakly regulated, using scientific studies that were superseded decades ago.<sup>6</sup> Even OSHA's most recent health standard (chromium), by the Agency's own risk calculations, allows employers who comply fully with the new standard to allow workplace levels high enough to impose an excess lifetime risk of cancer of greater than 1 chance in 100 upon their employees. But in contrast, Congress has most often instructed EPA to regulate toxic substances to low enough levels that the extra cancer risk will be no greater than one chance per million residents. *Therefore, it would be extremely misleading to equate an exposure level "not exceeding the PEL" with one that is "safe for workers"*—for the vast majority of toxic substances, there is no OSHA PEL, and for many others, exposure at the PEL is much riskier than any colloquial definition of "safe."

21. Probably every government agency faces criticism from constituencies it serves, regulates, or otherwise affects. OSHA has faced a particularly strong barrage of criticism, however, and in recent years critics have focused on some fundamental failures of the Agency due to inaction. For example, the *New York Times* won the Pulitzer Prize for Public Service in 2004 for two three-part series on OSHA ("Dangerous Business," January 8, 9, and 10, 2003) and "When Workers Die," December 21, 22, and 23, 2003). Among other revelations, these articles documented that in only a vanishingly small percentage of cases since 1970 where OSHA found an employer had—often on more than one occasion—"willfully" caused or contributed to a worker death did OSHA attempt to pursue criminal charges against the employer. In a June 14, 2006 hearing before the House Committee on Education and the Workforce, epidemiologist and former

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<sup>6</sup> For example, the PEL for beryllium was set in 1949; published studies make clear that workers can contract the fatal lung disease uniquely associated with beryllium dust after having been exposed to roughly the amount contained in one day's exposure at the PEL (but the standards allows this level of exposure every working day for 45 years) (see Paragraph 27 below).

sub-Cabinet official Dr. David Michaels opined that “Workers cannot rely on OSHA to issue new regulations on chemical hazards. OSHA is paralyzed and has abdicated its responsibility to issue health standards that protect workers.” In addition, with new scientific reports asserting that roughly 70 percent of the responders and cleanup workers at “Ground Zero” have developed respiratory problems, media accounts increasingly are focusing on OSHA’s decision not to conduct enforcement actions during the entirety of the 10-month cleanup operation, and on the fact that so few of the responders wore any effective respiratory-protection equipment. In my personal opinion, OSHA should, especially in the current climate, welcome the efforts of interested academics to evaluate their efforts and to recommend priorities for the research and control of hazards, and not seek to withhold basic data from them.

22. In my expert and personal opinion, the only way for OSHA to reverse its decline, and help eliminate the unacceptably high risks of illness, injury and death that persist in the nation’s workplaces, is through science-based regulation, enforcement (both traditional enforcement and via the types of partnerships I championed), and outreach. The cornerstone of scientific analysis is reliable empirical data. I believe it is extremely unfortunate that the U.S. has not conducted a systematic survey of workplace exposures to toxic substances since NIOSH (the National Institute for Occupational Safety and Health, part of the CDC) conducted such a survey in 1983. In the intervening 23 years, in contrast, the federal government has surveyed U.S. dietary patterns at least six times, and conducted numerous large-scale surveys of community exposures to human (and animal) populations.

23. Because the air sampling data collected by OSHA represents “the largest database of occupational air sampling measurements” (Melville and Lippmann—see paragraph 65 below), it is perhaps even more inexplicable that the Agency has devoted so little effort to analyzing the extremely valuable data it has collected on a daily basis for the past 30 years. OSHA’s most definitive recent opportunity to affirm the value of occupational exposure data was in 2003, when it published its 2003-2008 Strategic Management Plan. Even though OSHA acknowledged in its companion document to the Plan (“OSHA Strategic Assessment”) that statistics regarding occupational disease cases are extremely

unreliable<sup>7</sup>, all of the objectives and strategies mentioned in the Plan itself involve trying to measure the toll of illnesses and discern reductions in them, not trying to measure or reduce the exposures that cause illness.<sup>8</sup> I was critical of the first Assistant Secretary appointed by the current administration for rejecting out of hand an analysis I presented him, a report showing that roughly 20 percent of all fatal industrial accidents in Region VIII were caused by conditions that could recur elsewhere if OSHA failed to issue informational guidance about them. But my concern for OSHA's tendency to dismiss analysis as a guidepost for action did not begin with the current administration. I was also critical, for example, of the last Assistant Secretary appointed by President Clinton, for his insistence upon an overly-ambitious ergonomics regulation (overturned soon after its promulgation by an act of Congress) that in my opinion substituted guesswork about the causes of repetitive motion disorders for scientific analysis thereof. I have tried to encapsulate my continuing dedication to OSHA's mission, and recommendations for reclaiming it, in a letter I sent to the entire Agency workforce upon my resignation from the federal service (a true and correct copy of which is attached as Exhibit 9).

### *E. My Whistleblower Lawsuit and Settlement*

24. In December 2003, I signed a Settlement Agreement with the Department of Labor that resolved a lawsuit I had brought against the Department for whistleblower retaliation. I received approximately \$500,000 in salary, benefits, and other compensation through this settlement, with the majority paid in the form of 25 months

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<sup>7</sup> The Strategic Assessment noted, for example, that although researchers believe that over 150,000 new cases of work-related chronic obstructive pulmonary disease (COPD) arise each year, the Department of Labor received only 717 reports of new COPD cases in a recent year. Attempts to enumerate (as opposed to estimate using risk assessment techniques, as Leigh et al. and others have done) the national toll of work-related cancers and other illnesses that can arise decades after exposure are even more unreliable, yet OSHA inexplicably proposes to look at illness statistics, rather than exposure conditions.

<sup>8</sup> The words "sampling," "hygiene," or "monitoring" are not found on a word-search of the Strategic Plan (other than one instance of "monitoring" in connection with 9/11 rescue efforts).

full salary while I restarted an academic career, working independently (and on topics largely unrelated to OSHA's mission) at UMDNJ and Princeton. This section briefly describes the policy issue that precipitated my whistleblower case, which relates substantively to the first of my two pending FOIA requests.

25. **Overview.** I was removed in 2003 from my executive position at OSHA because I disagreed with (and, after months of working through internal channels to try to revisit this decision, ultimately revealed to the trade press) the decision by the Assistant Secretary not to offer blood testing to OSHA's own workforce of approximately 4,000 current and former inspectors. These tests would have revealed which of the inspectors (if any) had become "sensitized" to beryllium dust they had inhaled during inspections of facilities that produce or use this substance, and as a consequence were at extremely high risk of developing a progressive, often-fatal lung disease uniquely caused by beryllium. I told the Assistant Secretary repeatedly that offering the tests was scientifically and economically justified, based on my risk estimate that 1 or 2 percent of current inspectors would be found to have already been sensitized—and justified on strategic/political grounds, given that OSHA should arguably be seen as interested in the health of its own employees (as an indication of whether and how it cares about the health of the nation's private-sector workers). Five years after OSHA first began discussing a beryllium testing program, and several months after my lawsuit was settled, OSHA began offering the tests, and later revealed that nearly 4 percent of the first group of approximately 300 inspectors tested had been found to be sensitized (i.e., at least twice the prevalence I had feared would be found).

26. **Medical Background.** Beryllium is a lightweight and very strong metallic element, especially when alloyed with other metals. It has been used for decades in military and aerospace applications, and more recently has been used in computers, sporting goods, and dental prostheses, among other applications. The material is benign in finished products, but fine beryllium dust can cause a grave disease (formerly known as berylliosis, now known as chronic beryllium disease, or CBD) when inhaled or absorbed through the skin. CBD is a lung disease caused by the derangement of the body's immune defenses; when someone's immune system becomes sensitized to beryllium

particles retained in the air sacs deep within the lungs, the body's white blood cells begin to mount a defense, and ultimately suffocate the victim by filling the air sacs with white cells. The "beryllium lymphocyte proliferation test" (BeLPT), a reliable blood test that can now be performed for less than \$200, reveals whether a person's white cells have become sensitized to beryllium. One cannot develop CBD without first becoming sensitized, although for reasons unknown, only about 30 to 50 percent of sensitized persons go on to develop CBD. Sensitization is therefore somewhat analogous to an allergy, in that additional exposure to the agent can be extremely dangerous (although unlike a food allergy, one is not born with sensitivity to beryllium, but can develop it only following exposure). Beryllium is of course not an infectious agent, but the BeLPT is akin to the skin test for tuberculosis—a positive test confirms that you must have been exposed in the past, and that you are at risk of developing the associated disease later in life, with or without additional exposure. It is important to note that although it is possible to progress from sensitization to CBD without sustaining any additional exposure to beryllium, occupational physicians trained in beryllium disease generally agree that once someone has been diagnosed as sensitized, further exposure would be extremely unwise (and they also generally agree that other steps can be taken, particularly counseling to quit smoking and beginning treatment with corticosteroids, in order to help stave off the progression to CBD as long as possible). Therefore, *failing to diagnose workers with sensitization is tantamount to increasing the incidence of CBD in that population*, especially if the workers would otherwise continue to be exposed to beryllium, as is certainly true for active OSHA inspectors.

**27. Risk Calculations.** In 1970, OSHA adopted an enforceable permissible exposure limit (PEL) for beryllium, based on a calculation made in 1949, that allowed workers to be exposed (every day for a working lifetime) to up to 2 micrograms of beryllium per cubic meter of workplace air ( $2 \mu\text{g}/\text{m}^3$ ). In other words, with roughly 250 working days in a year and 45 years in a working lifetime, a worker can be exposed to just under  $22,500 \mu\text{g}/\text{m}^3\text{-days}$  (2 times 250 times 45) of beryllium in a career, and his employer would still be in compliance with the OSHA standard. However, numerous published medical case reports (see, e.g., Kelleher et al., "Beryllium Particulate Exposure and Disease Relations in a Beryllium Machining Plant," *Journal of Occupational and*

*Environmental Medicine*, March 2001, pp. 238-249) over the past decades have revealed that some workers have developed CBD after having been exposed to as little as  $2 \mu\text{g}/\text{m}^3$ -days, a level 1/10,000<sup>th</sup> of the allowable limit set by OSHA<sup>9</sup>. I learned in 2001, when OSHA sent its Regional Administrators portions of the SLTC database showing beryllium levels found by inspectors in establishments within our respective Regions, that some OSHA inspectors had spent at least one full day in workplaces where the beryllium concentrations were as high as several hundred  $\mu\text{g}/\text{m}^3$ —theoretically far more than enough to cause sensitization or CBD later in life just from that single encounter. It was also obvious to me that because OSHA inspectors typically conduct several dozen inspections each year, many of our employees could have inhaled beryllium dust many times over the course of a career as an inspector. Seeing these data also made it clear to me that OSHA had at its fingertips information of great medical importance—exposure data that should obviously be used to target the testing (or to target more emphatic advice about volunteering for testing) towards those inspectors it knew had visited the most highly-contaminated worksites (or who had by chance spent many more days in workplaces containing any beryllium than the average inspector had).

**28. *Early Involvement.*** Although I worked at the Harvard School of Public Health in the early 1980s with several of the leading researchers studying the epidemiology of CBD, my active involvement in the science and policy of beryllium began in 1998, when I led OSHA’s negotiations with the Department of Energy (DOE) over the content of DOE’s pending regulation of beryllium exposure at DOE facilities. Notwithstanding the solid evidence that the old standard was well out of date and not at all protective of health, DOE was reluctant to lower its exposure limit tenfold (from  $2 \mu\text{g}/\text{m}^3$  to  $0.2 \mu\text{g}/\text{m}^3$ ), because OSHA had not proposed to lower its own  $2 \mu\text{g}/\text{m}^3$  limit. DOE was considering leaving its limit at  $2 \mu\text{g}/\text{m}^3$ , with an automatic change to a lower limit if and when OSHA moved in this direction. I took the unusual step, with the concurrence of the Assistant Secretary at the time, of asking DOE not to put any weight on OSHA’s continued inaction, but to move forward despite potential embarrassment to OSHA of being “left

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<sup>9</sup> Because no other substance can cause CBD, and because exposure to significant amounts of beryllium dust is virtually unknown outside the workplace, researchers can be unusually confident about the cumulative exposures that victims such as these had sustained.

behind” (DOE did in fact lower its limit to one-tenth of the OSHA level)<sup>10</sup>. Then, beginning in 2000, I began to receive drafts of a beryllium medical testing protocol for OSHA’s workforce, written primarily by physicians in OSHA’s Office of Occupational Medicine. The protocol envisioned offering the BeLPT to current OSHA inspectors (referred to internally as “compliance health and safety officers,” or “CSHOs”), in order to determine whether any of them had become sensitized or had developed CBD. I made numerous comments on this protocol, which I believed was generally excellent but needed to be expanded to cover retired inspectors, whose exposures were presumably higher on average than those of OSHA’s active inspectors (given that much of industry has gradually implemented better controls on beryllium since 1970). I also urged my colleagues and the Assistant Secretary to implement the program expeditiously, in part because I believed some inspectors had already been sensitized (and in need of diagnosis, medical counseling, and restrictions on further exposures), and in part because we were aware that DOE had embarked on an ambitious testing program of its own, and was in the process of testing more than 20,000 of its current and former workers, including subcontractors who had never worked for that Department. DOE has had a reputation as an employer not particularly concerned about worker health and safety, and it seemed to me purely as a political matter that OSHA as an employer could not afford to fall behind one of the employers whose behavior it was committed to improving.

**29. Assistant Secretary’s Decision.** In April 2002, I attended a meeting of the “OSHA Executive Board” (OEB), at which all senior executives participated in person or by teleconference. After brief discussion, during which I was the only executive arguing for implementation and expansion of the proposed testing program, the Assistant Secretary ended the discussion by announcing that the tests would not be offered to active inspectors, and that although he might reconsider that decision in the future, there would definitely be no testing offered (or even information sent about why and how to obtain the tests by paying out-of-pocket) to retired inspectors. I thought the stated reasons for these decisions were particularly unsound. The Assistant Secretary emphasized that “no

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<sup>10</sup> Then, in 2005, the American Conference of Governmental Industrial Hygienists (an expert body that sets consensus standards) proposed to lower its recommended exposure limit for beryllium to 0.05  $\mu\text{g}/\text{m}^3$ , or one-fortieth of OSHA’s limit.

one we've ever tested has been positive for sensitization" as reason for not proceeding with testing, even though we openly discussed that only one group of five inspectors had ever been tested, and that an observed result of 0/5 is perfectly consistent with a "lucky" random result of sampling a tiny fraction of a population whose true sensitization rate might be as high as 1 in 10 (i.e., an "epidemic" of 400 sensitized employees among current and former inspectors). OSHA's most senior career executive spoke out against informing retirees, citing "the bad press we might receive" if we informed retirees but did not offer to pay for their tests—I argued in vain that we could easily pay for their tests, but that in any event any publicity concern would only be exacerbated when retirees eventually realized they had not even been informed of their exposure and of the benefits of testing.

30. **Whistleblower Disclosure.** The precipitating event in my leaving OSHA was the publication in November 2002 of an article in *Inside OSHA* (a biweekly trade newsletter published by Inside Washington Publishers of Arlington, Virginia), revealing that OSHA had decided at the April OEB meeting not to test active inspectors for beryllium sensitization or to inform retirees about their exposure (this newsletter rarely attributes quotes to named individuals, and this particular article named no sources). The day that the advance copy of the article appeared on the newsletter's Web site, the Deputy Assistant Secretary ordered me to fly from Denver to Washington the next business day. That evening, the *Inside OSHA* reporter to whom I had recently provided the information for the article left me a phone message, informing me that the personal press secretary for the Assistant Secretary had just called him, complaining about the "leak" of the beryllium decision, and indicating she knew that I was the source (the reporter did not confirm her suspicion). When I arrived in Washington, the Assistant Secretary told me privately that he was going to remove me from my Regional Administrator position and move my family and me from Denver back to Washington. I was going to be reassigned, he told me, to a position with no staff or management responsibilities, and no policy involvement, working from the offices of a private-sector organization (the National Safety Council) to help plan a conference on worker safety that was to be held three years hence. Later that day, the Assistant Secretary held up the new issue of *Inside OSHA* at a

meeting of all OSHA executives, and stated angrily that “one of you in this room” had leaked his decision not to implement a beryllium testing program.

31. **Office of Special Counsel.** In January 2003, I filed a complaint with the U.S. Office of Special Counsel (OSC) alleging whistleblower retaliation. In September 2003, having issued several stays blocking my move to Washington in order to investigate the case, OSC decided not to pursue my claim of retaliation. In order to avoid moving my family, I offered to immediately accept a position in Denver at a civil service rank (i.e., give up membership in the SES), and then to resign that position 9 months later, in addition to withdrawing my legal claim. A lawyer representing DOL told my counsel at that time that DOL would “never, ever give in” to terms such as those, and I reported to the National Safety Council assignment as ordered, in late October 2003. Immediately before notifying me officially that OSC would not pursue my case, an OSC staff attorney told me that the OSHA officials involved had explained the virtually simultaneous publication of the beryllium article and the decision to remove me from my Regional Administrator position as essentially an unrelated coincidence. Although the press secretary admitted to OSC that she had identified me as the source of the article, and the Assistant Secretary admitted he was angry about the disclosure, the two testified in depositions that they never discussed the identity of the source with each other. The OSC attorney volunteered that he and his colleagues were highly skeptical that this version of events was true, but that higher-ups at the OSC had nevertheless instructed them to drop the case. I appealed the OSC’s decision to the Merit Systems Protection Board (MSPB).

32. **Public Disclosure.** In October 2003, I wrote to the “disclosure unit” of OSC, asking OSC to consider the substantive policy issue of beryllium testing (that is, as opposed to the separate issue of my involuntary transfer), and to exercise its authority to require OSHA to explain the reasons for not moving forward with the program. This disclosure prompted media coverage in, among other venues, the *Washington Post* and the *Washington Times*. OSHA issued a press statement (and sent a similar document to each of its employees via e-mail), claiming that “implementation of [the beryllium testing program] is already underway.” I knew that that statement was untrue, in that no testing had been offered and no information had been provided.

33. ***Discovery and Settlement.*** In December 2003, an MSPB judge granted the first of several of my requests for discovery, and I received printouts of several dozen e-mails among other OSHA senior management officials concerning my whistleblowing. Among other things, these e-mails documented that the Assistant Secretary and his press secretary had discussed the “leak about the beryllium decision” both several hours before and after the Assistant Secretary informed me I would be stripped of my management position. Within two weeks after I received these documents, DOL offered settlement terms that I accepted (see Paragraph 24 above); note that I received the 25 months’ salary (in addition to a lump-sum payment) as a continuing member of the SES.

34. ***Hostile Animus.*** The e-mails received in discovery also amply document a hostile animus towards me on the part of my former colleagues and supervisors, several of whom are still in their positions at OSHA and almost certainly have been involved in discussions of how to respond to my recent FOIA requests. For example, one of these officials offered in 2003 to “get on a plane to Denver with a working weapon to take care of the Finkel problem.” Others referred to my filing a complaint alleging retaliation as “[when] he tried to blow us up” and “the declaration of war.” One message among these officials referred to me using a (military?) slang term implying my readiness for forcible sexual assault. I believe there is a straightforward explanation for the fact that at least five other academic researchers and advocacy groups (see Paragraphs 63-67 below) have in the past received from OSHA without difficulty some of the same data OSHA now seeks to withhold from me: none of these others was deemed, rightly or wrongly, to be an enemy of the agency by its leadership.

35. ***Press Coverage of Decision to Begin Testing.*** In March or April 2004, a reporter (Sam Roe) for the *Chicago Tribune* contacted OSHA to inquire about the status of the testing program that it had said was “already underway” six months earlier. The Agency explained to Roe that the program had still not actually begun, but asked if he would wait several weeks and announce its inception in his article, which Roe agreed to do. A true and correct copy of Roe’s April 24, 2004 article “OSHA Offers Tests for Staff Exposed to Deadly Beryllium” is attached as Exhibit 10. Notably, although OSHA has data (part of the Salt Lake database) indicating exactly which inspectors conducted sampling at

those facilities with beryllium levels hundreds of times higher than at many other facilities, the Agency decided not to tell those inspectors that they should consider themselves at high priority for testing, but instead sent the same informational material to every active inspector who had ever visited a facility that *might* have used beryllium (a group comprising nearly 90 percent of all active inspectors). That material instead suggested to the inspectors who received it that “you should consider whether or not you recall being in facilities where beryllium was used... [and] what you can remember or can research about the levels of beryllium sampling” (emphasis added). Only about 300 of the roughly 1000 inspectors who received the offer of testing had asked to be tested as of one year later (see below). I believe that this relatively low recruitment rate (given the ease of testing and the consequences of undiagnosed sensitization) is due to at least two factors: (1) the failure of OSHA to proactively provide each inspector with his or her exposure history, drawn directly from the Salt Lake database, and thereby signal to those with the highest cumulative exposures that they should most seriously consider being tested; and (2) the rather unsubtle signal sent in the April 2004 *Tribune* article by the Deputy Assistant Secretary, who told Roe that although he (the Deputy) was eligible for testing because he had inspected facilities using beryllium earlier in his career, he was not going to avail himself of the program, because “I just don’t think it’s anything that I’m concerned about.” In December 2004, both the Assistant Secretary and the Deputy Assistant Secretary resigned from the federal service.

**36. Results of the First Group of Tests.** In November 2004, Mr. Roe called me to ask if I knew that at least three of the inspectors tested had been found to be sensitized; I told him this was news to me. He wrote an article about this finding on January 17, 2005, entitled “OSHA Workers Tainted by Beryllium Exposure: Agency Criticized for Downplaying Metal’s Hazards.” On March 24, 2005, the new Assistant Secretary issued a press release announcing that in fact, ten of the first 271 inspectors tested (i.e., 3.7 percent) had been sensitized to beryllium. This revelation was widely publicized in the print media, including an article in *Business Week* in May 2005 (a true and correct copy of which is attached as Exhibit 11). Several physicians who study CBD exclusively have commented to me that this percentage is unexpectedly high, and it is at least twice as large as the risk estimate I made before the program began (and that I believed would

alone have amply justified a more thorough testing program). It is ominous indeed that for all we know, some or all of the sensitized inspectors had only been exposed to beryllium during one or two workdays in their entire careers, perhaps to cumulative amounts far less than  $2 \mu\text{g}/\text{m}^3$ -days (see Paragraph 27 above)—if analysis of the requested data bears this out, it could mark a new “world’s record” for the lowest cumulative exposure known to cause sensitization, and *the lower the exposure that can be shown to cause an adverse effect, the more dangerous the substance is*. It is therefore troubling that OSHA has apparently not tried to expand (or not succeeded in expanding) the testing program beyond the roughly one-quarter of active inspectors who came forward first, to say nothing of retirees. However, even though 271 tests is a relatively small fraction of those who arguably should be tested, it is statistically a rather large sample in absolute terms, and the prevalence of sensitization within this group offers a unique opportunity to learn more about the true risks of beryllium exposure.

**37. *Implications of the High Sensitization Rate.*** Of course, I have no idea until this FOIA matter is resolved whether the high rate represents the tip of a proverbial iceberg, the entire iceberg, or something in between. The key question any researcher would ask first upon receiving the sampling data, linked—anonously—to unidentified inspectors who tested either positive or negative, is whether those inspectors who happened to come forward for testing include all of, some of, or none of the subgroup who were most highly exposed. If most or all of the highest-exposed inspectors have not yet been tested, and/or if most of the “positives” come from those with relatively low exposures, then the 4 percent prevalence would suggest that beryllium is more dangerous than current studies have indicated. This in turn would imply two conclusions: (1) that there are many sensitized inspectors who do not yet know their disease status because of the way the program was designed and carried out; and (2) the OSHA exposure standard for beryllium is even more inadequate than previous studies have demonstrated. This is obviously a matter of concern to the Agency workforce, and an important barometer of how adequately OSHA has responded to the first subset of test results, but also a matter for national concern, because of the much larger group of private-sector workers who encounter beryllium on a daily basis (a recent article by Henneberger et al. (*Journal of*

*Occupational and Environmental Hygiene*, Oct. 2004, pp. 648-59) estimates that 134,000 U.S. workers fit this description).

### ***F. My First FOIA Request***

38. **Overview.** When I returned to academia in September 2004, I immediately sought to resume my primary research emphasis—using cutting-edge methods of risk assessment and cost-benefit analysis to identify unacceptably large risks to human health that can be ameliorated via cost-effective solutions that benefit citizens, workers, and industry. I was able for the first time in over a decade to follow promising research avenues where they led me, without the political constraints of being a senior manager at an agency with a risk reduction mission. I had long been aware, through my management positions at OSHA, that the sampling data collected by OSHA could readily be used to answer two basic types of questions that I understand to be fundamental to the purposes of FOIA. First, the data obviously could enable citizens to “know what their government is up to”—even the most cursory analysis of the “big picture” painted by the data could reveal the extent to which OSHA is attempting to gauge compliance with its occupational health standards, and the extent to which it has been willing and able to adjust its inspection program to “go where the problems are.” With respect to beryllium, the data will readily indicate whether the medical testing program of OSHA employees has succeeded, however belatedly, in finding most of the cases of sensitization lurking within the OSHA workforce—a question whose answer has major implications for OSHA’s credibility in preventing occupational disease among the nation’s 130 million private-sector workers under its purview. I also understand that FOIA is intended to “shed light on an agency’s performance of its statutory duties.” Here the data could also be invaluable, as the database can be analyzed (for example) to discern whether concentrations of substances that “are likely to cause death or serious physical harm to employees” remain unregulated by OSHA, despite the central mandate of the Occupational Safety and Health Act of 1970 that such situations be identified and remedied. In other words, the data collected by

OSHA can also enable citizens to “know what their government is *not* up to” that it arguably should be. I am very familiar with the way other federal agencies, particularly EPA, routinely issue contracts to academic institutions and consulting firms to conduct analyses such as the ones I hope to do, and believe that many other agencies would welcome *pro bono* analyses of data they collect, or at least would not make such efforts to see that such analyses are *not* conducted.

39. ***Overview of the Salt Lake database.*** Based on information I received when I was Regional Administrator (see Paragraph 50 below), I can provide some basic information about the size of the Salt Lake database: (1) during the years 1985-1999 inclusive, roughly 1.6 million samples were analyzed; (2) there are roughly 1600 different substances represented in the database; (3) however, roughly  $\frac{3}{4}$  of all the sampling results (i.e., approximately 1.2 million results during this period) come from the 25 substances most frequently represented. As mentioned earlier (see Paragraph 18 above), OSHA has promulgated health standards for roughly 25 specific substances during its history—*but only about half of these two groups of 25 lists overlap*. In other words, there are several substances (for example, benzene), for which OSHA has a specific regulation but for which very few (now roughly 70 samples per year, in the case of benzene) samples are taken, and there are several cases (e.g., toluene, manganese) where tens of thousands of samples have been taken despite the lack of a modern exposure limit. This feature makes the database even more useful than it otherwise would be. By seeing an analysis of results from the first category of substances, the public can learn “what their government is up to” with respect to hazards it has itself deemed worthy of special attention; results from the second category would shed light on what the Agency is “not up to,” in the sense of not regulating, justifiably or not, substances for which reams of data may exist about workplace exposures. Only by linking exposure data with toxicologic data readily available elsewhere (e.g., from the animal studies that public- and private-sector researchers publish routinely) can a risk analyst like myself estimate how many premature deaths are attributable to current and past exposures to specific unregulated substances. As a citizen, I would hope that answers to questions such as these lie at the heart of how OSHA construes its own mission, especially given that OSHA itself has generated the data indispensable to answering those questions.

40. When I read OSHA's March 2005 revelation that nearly 4 percent of the first group of inspectors was sensitized to beryllium, I resolved to obtain as much information as was available on the exposure history of OSHA's workforce, in order to contribute to the growing scientific understanding of the true risks of beryllium exposure. I filed my first FOIA request on June 28, 2005, and to date have received no information whatsoever on the beryllium issue from my former agency.

41. When I receive it, the data on beryllium concentrations, linked—anonously—to the inspectors who collected the samples and who have either tested positive, negative, or not been tested for beryllium sensitization, will provide crucial information relevant to understanding the risks of chronic beryllium disease and OSHA's actions in the face of these risks. First, by adding up the beryllium concentrations each inspector encountered in different inspections over the course of his/her career at OSHA, I will be able to greatly improve scientific understanding of the beryllium dose-response relationship (the risk of becoming sensitized as a function of cumulative exposure). I cannot contribute in any way to this scientific understanding without some means of identifying each inspector, albeit anonously. That is because it is the history of each inspector's encounters with beryllium, over one or many individual inspections, is the critical piece of exposure information—and being able to link that history (again, anonously) with the inspector's health status (sensitized, tested and found not sensitized, or not tested) is the critical piece of outcome data. The medical literature on beryllium sensitization suffers from the perennial problem that exposures are generally not measured at the time, and must be “reconstructed” through (at best) informed guesswork once clinical effects have been documented. Such “dose reconstruction” does not necessarily taint scientific conclusions; indeed, one of the most extensive and precise dose-response relationships ever documented, the relationship between radiation exposure and the risk of various types of cancer, is based largely on study of a population whose exposures were never measured, but could only be inferred from their location—the survivors of Hiroshima and Nagasaki. *In the OSHA workforce, science has a unique opportunity to study the response of individuals (and the lack of response in others) who were engaged in measuring airborne beryllium at the exact times they were themselves exposed to it.* This information will also be enormously useful in allowing OSHA employees and the much

larger population of private-sector workers exposed to beryllium to make informed personal decisions to request testing, based on comparing their own exposure histories to those who were and were not sensitized, while reassuring others that such tests are probably not crucial for them. If it turns out that those inspectors who tested positive for sensitization were exposed to relatively large concentrations of beryllium (and/or exposed relatively more frequently than others), then only those OSHA and private-sector workers who were exposed to even more than those amounts should be informed with high priority about the benefits of blood testing and early detection. If, on the other hand, some or all of the sensitized inspectors were exposed to very low levels of beryllium, the population that should be counseled to consider blood testing would be much larger than dictated by current medical and public health practice.

42. It is my understanding that a core purpose of FOIA is to enable citizens to critically evaluate the activities of government, even if the agency involved has used the requested data itself and made its own determination; being able to corroborate, modify, or refute such self-evaluations is crucial to public and expert acceptance of the conclusions. Indeed, I benefited by subjecting much of OSHA's regulatory work (both my own and that of others), to peer review, through public rulemaking hearings and through scientific peer review panels, when I was Director of Health Standards. *In the case of beryllium, however, OSHA has shown no interest in using its own exposure (air sampling) and outcome (BeLPT) data to shed light on the adequacy of its internal medical testing program or on the adequacy of its PEL for beryllium.* In my June 28, 2005, FOIA request, I also asked for the following:

The results of any analyses OSHA has undertaken, using either in-house or contractor resources, to estimate the cumulative exposure of any of its employees to beryllium, including but not limited to any analyses comparing the cumulative exposures (and/or the number of facilities an inspector entered where beryllium was found) of employees who have tested positive for sensitization to those who have tested negative and those who have not been tested.

Fifteen months later, in a letter sent to my counsel by Edward Waldman of DOL on September 29, 2006, DOL acknowledged that "DOL does not possess any records responsive to Professor Finkel's request for "analyses OSHA has undertaken ... to

estimate the cumulative exposures of any of its employees to beryllium... .” In other words, DOL has undertaken no analyses of the type I plan to conduct using the requested data. This implies that by thwarting my request, DOL would be able to ensure that no such analyses are *ever* undertaken, despite the substantial public interest in knowing more about this cluster of beryllium sensitization at OSHA and its broader ramifications for the Agency’s conduct and for public health.

43. I can conduct all of this research without ever learning anything about the identities of the inspectors, which of them had high and low exposures, and which of them are sensitized to beryllium. I cannot possibly conduct it, however, without the ability to track the exposure history and BeLPT status of *unidentifiable* individuals who have already been assigned unique but encrypted identification codes. To draw an analogy, receiving the data without the field that assigns each inspector a unique, encrypted identification number would be akin to trying to assess whether aspirin reduces the risk of heart attack, without knowing which subjects in the study who had heart attacks did or did not take aspirin. No research involving human subjects could possibly proceed without a simple system that tracks individual data without compromising individual privacy—this is what ID codes exist to do, and they have been used for centuries without untoward effects. I cannot emphasize strongly enough that I have no interest whatsoever in the identities of any of the individual inspectors, just as no researcher studying the Hiroshima data would have any interest in putting “names and faces” on the exposure or outcome data. Indeed, my analyses could be called into question if I *did* know any demographic information about the individuals within the database (other than any such information that might be biologically relevant to the disease, such as smoking status—which in this case is not part of the database in any event); epidemiologic studies are supposed to be “blinded” to such variables that might subtly influence the investigator. Epidemiologists, whether they work retrospectively (as in the radiation studies) or prospectively (as in the everyday practice of testing drugs and medical interventions on patients), study “the patterns, causes, and control of disease in populations”—we are not tabloid journalists interested in what befalls any particular individual.

### ***G. My Second FOIA Request***

44. I had two primary reasons initially for making the second and broader FOIA request, which I filed on August 12, 2005: (1) I learned that several state environmental agencies were able to provide me with company-specific information detailing when and how individual facilities made investments to comply with restrictions on emissions to the general environment, and wished to link these datasets to OSHA measurements of whether worker exposures at these facilities tended to rise or fall after environmental compliance efforts (see Paragraph 45 below); and (2) I received from an environmental journalist some aggregate data OSHA had provided to him (the journalist did not need to invoke FOIA to obtain these data), which revealed among other things that for at least one major industrial cancer-causing chemical, OSHA was apparently finding an astonishingly high rate of overexposures (non-compliance with its PEL), but was responding to this finding over time by conducting *fewer* rather than more inspections sampling for this substance. The data requested in my second FOIA submission will enable me to study important aspects of the “big picture” of occupational exposure to hazardous substances in the U.S. OSHA’s database provides by far the most comprehensive information on occupational exposures, but again, the Agency is not devoting serious effort to learning from it. For example, statistical analysis of the data I requested could readily answer questions about:

- The distribution (lower bound, central tendency, upper bound, etc.) of worker exposures for any substance of toxicological interest, further broken down by year, state/county, industrial sector, union versus non-union facility, etc. Several of the articles described in Paragraphs 63-67 below answered these sorts of questions, but only for a subset of substances and industries, and only using data up through the year 2000 (see, e.g., the article by Coble et al. discussed in Paragraph 63 below). More importantly, none of these previous investigations had as a central purpose the evaluation of OSHA’s workplace sampling, regulatory, and enforcement programs. And, even the subset of these investigations that attempted to assess the risks of selected exposures

did so primarily with reference to the exposure limits OSHA has either set or “inherited” from other standard-setting bodies at the Agency’s inception. These limits are often so outdated and unscientific, however, that it is impossible, indeed perverse, to gauge OSHA’s performance solely by how well industry may be meeting them; that would be akin to evaluating the performance of a state highway patrol force, in a state with a 100-mph speed limit, by considering only the percentage of drivers found exceeding that limit. Again, quantitative risk analysis must be applied to these data, in order to estimate the true size of the occupational health problems OSHA has yet to solve.

- The extent to which industry *as a whole* is or is not complying with OSHA exposure limits, again subdivided by important geographical, economic, and other variables. OSHA’s public database of violations and monetary penalties (see Paragraph 54 below), *which OSHA makes available free of charge on the Internet, fully searchable, updated on a daily basis, and with company names and addresses included*, amply documents whether individual companies are out of compliance. However, only statistical analysis can shed light on conditions and trends nationwide, and thereby shed light on OSHA’s response to non-compliance, which is surely the most important indication of whether it is fulfilling the mission Congress assigned to it in 1970;
- The extent to which OSHA has maintained a credible inspection program looking for overexposures, which among other things depends on whether the number of samples taken (across-the-board or for certain substances or in certain industries) has declined or risen in recent years; and
- The identities of those substances unregulated by OSHA (the vast majority of all toxic substances) for which developing exposure limits should be the highest priority, based on the distribution of exposures and comparison to objective benchmarks (such as levels known to be

harmful in humans or animals, limits set by other agencies or other countries, etc.). This sort of perspective could be of value not only to OSHA, but to Congress, which has the power to step in (as it did recently when OSHA was slow to promulgate a regulation governing accidental needlesticks in health care settings) and respond to issues of particular concern.

All of these research questions involve absolutely fundamental issues for the national worker-protection system, and would be extremely worthy of independent research even if the Agency that maintains the database was making good use of it currently. Even if OSHA had produced analyses of questions such as those enumerated above, a key purpose of FOIA would be served by encouraging independent verification, corroboration, or modification of the Agency's conclusions. But in this case, the problem is even more fundamental: OSHA is not conducting such analyses, and its regulatory decisions (and non-decisions) must suffer for it.

45. I cannot conduct any of this research properly if OSHA redacts the names of the establishments where each sample was taken. It is simply an unacceptable and unscientific undertaking, one that would not (or at least should not) pass the muster of peer review, to analyze environmental/occupational data without separating the data into its two most fundamental categories: duplicate measurements taken at the same time in the same location, and all other (non-duplicative) measurements. In many OSHA inspections, OSHA staff take multiple samples, either for quality control purposes or to see if employees in close proximity to each other face different risks—it would invalidate the analysis completely to treat all of these samples the same as if they were taken at different establishments, as I would have to do if the company names were withheld.

46. As a grossly oversimplified example, consider a hypothetical analysis of trends in asbestos exposures (asbestos is commonly measured in units of fibers per cubic centimeter of air, or “f/cc”). Suppose that in one year (or in one industry, or in one U.S. state, etc.), OSHA had made 11 measurements of asbestos concentrations. In ascending order, suppose the measurements were as follows: 1, 15, 15, 17, 17, 19, 19, 21, 21, 23, and 23 f/cc. If the establishment names were redacted, the only conclusion one could

draw is that the average asbestos exposure in that year (or industry, or state, etc.) was 17.4 f/cc (adding up all 11 measurements and dividing by 11). Suppose, however, that the first measurement was made in “Joe’s Brake Shop,” while the other 10 measurements were all actually made while inspecting “Jane’s Asbestos Factory” on September 8 of that year. In reality, there are only two measurements: workers at Joe’s are exposed to 1 f/cc, and those at Jane’s are exposed to an average of 19 f/cc (plus or minus 4). The true average for that year (state, industry, etc.) is not 17.4, but is 10 (19 + 1, divided by 2).<sup>11</sup> Obviously, this error could be much more than 74 percent (already a huge inaccuracy) if the disparity between the two workplaces happened to be greater. Furthermore, as soon as the researcher tried to compare *this* average result to any other (perhaps, asbestos exposures in the following year, or in another state), she could simply get the wrong yes/no answer—the true exposures could be rising but appear to be falling, higher in the state that actually had lower exposures, etc. This is why all previous requesters I could identify (see Paragraphs 63-67 below) received from OSHA the sampling data with company names included: the data are simply worthless without them.

47. In addition, I intend to use these data to conduct pioneering research into an important issue, which simply cannot be studied without being able to link OSHA’s information on particular establishments with additional information on the same establishments that I can easily obtain from other federal and state governmental agencies. As I noted in my second FOIA request, no one has yet tested the hypothesis, supported by anecdotal reports and case studies, that companies who make environmental-control investments (to comply with EPA mandates or for other reasons) tend to have their workplace exposures rise as a consequence of the control methods chosen. For example, firms can reduce the amount of a chemical that leaves the facility through a “smokestack” by minimizing ventilation within the facility—but that would increase the concentration of that chemical workers would breathe. Attached as Exhibit 12, for example, is a true and correct copy of a journal article (Piltingsrud et al., 2003) that documents how exposures within a Cincinnati company that produced vinyl shower curtains rose dramatically after the Ohio

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<sup>11</sup> There are, of course, more elaborate ways of looking even at this simplified example—one would probably also want to compute a weighted average that took account of sample size and/or variance within establishment—but the point remains that the clearly *incorrect* way to analyze the data is to lump it all together.

EPA required the firm to install pollution control equipment that reduced ventilation in the workplace.

48. I have been offered access to at least one comprehensive state-level database containing information, *specific to each company name and address, which the state agency freely discloses to the public*, about when each company installed pollution control equipment or was issued a new air pollution permit. The New Jersey Department of Environmental Protection (NJDEP) maintains a public database called “NJEMS” (New Jersey Environmental Management System), which contains company-specific information on the type of pollution control equipment installed as a condition of air pollution permit decisions, and the date on which such equipment became operational. All these data are available using the “Data Miner” application on the NJDEP Web Site, and NJDEP officials have assured me that if I need additional information, such as the results of stack tests for particular substances after (and in some cases, before) the controls were installed, I need only ask informally and such data will be readily provided. In order to see if workplace exposures rose or fell (or were unaffected) in a variety of establishments after the controls were installed, I would have to know the company name in the OSHA database—otherwise, I could make no use whatsoever of the state environmental data. I note that OSHA deemed this issue of sufficient importance that it sponsored a two-day conference on the topic in June 1999, along with EPA, for researchers and interested parties in industry, labor, and government. One of the major recommendations emerging from that conference was that the anecdotal concern about adverse effects of environmental investments must be corroborated or refuted via a statistical analysis of the type I will conduct if given access to the OSHA sampling data. I also emphasize that the study I wish to conduct could provide powerful evidence for the business community to use in making the case (which it currently does only rhetorically) that it can be needlessly costly and perhaps counter-productive to comply with *uncoordinated* mandates from environmental and occupational regulatory agencies. It could also help pollution-prevention researchers make the case that cost-effective solutions exist that can reduce environmental risks without endangering workers (and vice versa).

### ***H. OSHA Has Granted My Fee Waiver Request***

49. On Oct. 20, 2005, I received a letter from OSHA, asking for information on five topics to support my fee waiver request. I responded via letter on November 17, explaining in detail how my request amply met all five criteria (relevance, informative value, contribution to public understanding, significance of the research, and lack of any commercial interest). In this letter, I also offered to pay up to \$500 in computer and reproduction costs, as the Department of Labor's written FOIA policy clearly states that employees of educational institutions need at most pay for these costs (not for staff time). On March 18, 2006, Susan Handler-Menahem, counsel for the defendants, wrote to my counsel and informed him that OSHA had reconsidered its position and was granting a full fee waiver. I am grateful for the waiver, but it is also a reflection of the simplicity of complying with my requests, as I discuss next.

### ***I. The Production of the Requested Data Would be Simple and Routine***

50. Producing the requested information is a simple task. I have a specific and long-standing knowledge of the database that contains the information needed for OSHA to process my two FOIA requests. The data reside at OSHA's Salt Lake City Technical Center (SLTC), where the samples that inspectors take are received and analyzed. The data have been available in computerized form for at least the past 10-15 years, and are continuously updated (see the following paragraph for a description of a request that SLTC fulfilled for me when I was an OSHA executive, indicating that the data were complete "from January 1991 until today" (emphasis added)). The last time I inquired, I was told that the database is maintained in the "Oracle" format (.dbf files), although on several occasions when I have asked for some of the data, SLTC provided it for me in one or more "Excel" spreadsheets, which is the format in which I would prefer to receive the requested data.

51. The data are kept in a format that makes retrieval extremely easy, and OSHA employs several people at SLTC and at Headquarters dedicated to maintaining the database and fulfilling requests for portions of it from OSHA employees and the public. For example, on February 7, 2003, I spoke with Fred Cox, an SLTC staff member, and asked him how best to delineate a data request that would allow me to identify substances and/or Standard Industrial Classification (SIC) codes<sup>12</sup> where the inspectors of Region VIII might concentrate in order to find health hazards more efficiently. Mr. Cox sent me a list of all the frequently-requested “fields” (columns of the spreadsheet) contained in the database, within several minutes of our phone call. Three days later, I sent him a note asking for the contents of eight of the fields, for all samples taken between January 1991 and December 2002. I further asked that if it was easy for him to narrow the request, I would prefer to only receive samples results for substances that appeared at least 500 times in the database during that time period (in order to avoid having to look through a larger dataset containing “unusual” substances). Ten calendar days later (Feb. 17), I received a CD-ROM in the mail from Mr. Cox, containing all the data I asked for (his cover letter indicated the data were complete “up to today,” and the results included several samples that had been taken as recently as Feb. 12, 2003). Mr. Cox divided the data into five Excel spreadsheets for my convenience; taken together, the spreadsheets contain approximately 300,000 individual sample results, and required only a small portion of a single CD-ROM to transmit (the 5 files together were approximately 45 megabytes in size). Since the entire database involves roughly twice as many years of sampling information as the portion I received, and perhaps 5-10 times as many substances, I estimate that it could fit on two or three CD-ROMs (even 2 times 10 times 45 MB, which equals 900 MB, could fit on 2 CDs or a single DVD). I also note that Mr. Cox apparently devoted only a very brief time to fulfilling my request, but that it would have taken him even less time had I asked for all substances and all years. Even though the amount of data extracted would have increased, it simply requires more human intervention to instruct the database software to output subsets of the data that meet

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<sup>12</sup> SIC codes divide up the nation’s industrial facilities into categories; for example, SIC 3021 are establishments that manufacture “rubber or plastic footwear.”

specified conditions than it requires to output the entire database (as I have asked for in my FOIA requests).

***J. OSHA Has No Legitimate Confidentiality/ Trade Secrets Concerns in Either Request, Because Companies Were Given and Continue to be Given the Opportunity to Request Trade-Secret Protection at the Time of Every Inspection.***

52. **Overview.** This section and the one following will show that OSHA has a *policy* of giving out the data that it now seeks to withhold from me, clear *procedures* for doing so, and a long *history* of doing so freely and without delay or impediment. In this, OSHA is merely mirroring the policy and practice of other federal agencies inside and outside the Department of Labor. In addition, OSHA has had in place for decades clear provisions that permit any inspected premise to assert protection for confidential business information. I therefore assert that OSHA's statement to industry in its April 21, 2006 letter to various trade associations ("There is reason to believe that the release of this data could include the release of confidential commercial or trade secret information that has not been previously disclosed to the public") (emphasis added) in two respects inappropriately provokes its industry stakeholders: the database should *not* contain any trade secret information (that cannot readily be identified and sequestered), and in any event, the data have *already* been disclosed to the public on numerous occasions.

53. **Written OSHA Procedures Make Clear that Sampling Information, from Identified Companies, is Routinely Disclosable Under FOIA.** During my 10 years at OSHA, I never heard anyone inside or outside the Agency assert that the identity of a facility where an industrial hygiene sample was taken was confidential or in any way not for public consumption. OSHA's current and past attitude towards this information is perhaps best reflected in its routine handling of FOIA requests for individual case files from inspections. When I was Regional Administrator in Denver, our office processed on the order of one request every day<sup>13</sup> from members of the public who wished to see

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<sup>13</sup> In this, my recollection jibes with the statistics found in the recent FOIA Annual Reports issued by DOL. In Fiscal Year 2005, for example, the Annual Report indicates that OSHA received 11,425 FOIA requests that year. Even if only half of these requests were to the Regional and local offices rather than to

the complete record of an inspection, often concerning a facility in which a family member was injured or killed. We had a staff person whose duties were dedicated almost exclusively to redacting case files to release to the public under FOIA. OSHA's "Field Operations Manual ("F.O.M.")," the Agency's "bible" that governs much of its inspection and data collection procedures, makes clear that all of the information on the "OSHA-91 Air Sampling Worksheet" (the raw data form that inspectors fill in when they receive results from the Salt Lake lab) "is normally factual... and, consequently, must be disclosed under FOIA" [see Chapter XIV ("DISCLOSURE") of the F.O.M., Section B(4)(m)]. The company name will appear on this form (see line 4 of Exhibit 13, which is a true and correct copy of the OSHA-91), and anyone requesting a specific case file would of course already know the establishment where the inspection took place. The identity of the chemical analyzed and the sample result (concentration) will appear as well (see lines 27-36 of the OSHA-91). Only two types of information are not routinely disclosable regarding air sampling data, according to Sections B(4)(m) and B(6)(c)(4) of the Disclosure Chapter of the F.O.M.: (1) the name and home address of the inspector that conducted the investigation, and the name of the company employee who wore the sampling device that took the measurement; and (2) the job and process description of the employee whose exposure was measured, which Section B(5) lists as the only possible trade-secret item related to sampling. *In other words, any requester can learn the results of sampling conducted at any worksite, by requesting all or part of the case file from inspections conducted there.*

**54. *Internet-Accessible Inspection Database.*** If a company violates any OSHA standard governing exposure to a specific substance, its name and address and the fact of the violation automatically become public knowledge. OSHA maintains a fully-searchable database of inspection results on the World Wide Web, and company names are always included in the search results. Attached as Exhibit 14 is a true and correct copy of a screenshot from one such Web-based inspection result, showing that on December 6, 1999, OSHA issued a \$5000 fine against Dcv Food Ingredients, of Randolph, Wisconsin,

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Headquarters (and I believe the true fraction is much higher than one-half), that would involve more than 5,000 requests fulfilled by the FOIA Officers in each Region. The Denver Region generally conducts about 5% of the inspections in the nation each year (there are 10 Regions, but it has one of the smaller staffs); 5% of 5,000 is 250, or roughly one request per business day.

for exposing four of its employees to concentrations of ferrous sulfate ranging from 5.96 to 119 mg/m<sup>3</sup>. *Companies that are truly concerned about trade-secret information therefore have a very strong incentive not to commit violations of OSHA health standards, because then the fact of the violation, the identity of the substance(s) involved, the number of employees exposed above the PEL, and other information appear on the Internet for all to see.* It is therefore interesting to note that of the 7 individual companies who filed comments opposing the release of the requested data in response to OSHA's Federal Register notice of April 2006, 6 of them had violations and penalty information evident on the Web-based system, and 4 of those 6 violated various health standards. In particular, the Web history of Anchor Block Co. of Minnetonka, MN, is instructive: OSHA inspected this company 7 times between 1997 and 2003, and proposed almost \$80,000 in total penalties for 27 violations. All but two of the 27 violations were either "serious" or "repeat" violations. Among the 21 serious violations were two violations of the crystalline silica standard, and two violations of the PEL for carbon monoxide; in addition, OSHA cited Anchor Block on Nov. 18, 2000 for a "failure-to-abate" violation of the silica standard (it had evidently not corrected overexposures found in 1997), and proposed an \$18,900 penalty for this violation alone. One might infer that despite its comments in objection to my request, Anchor Block Co. was not sufficiently concerned about public access to its ingredients to maintain employee exposures to at least two industrial toxic substances below applicable regulatory limits. The same might be said about other companies who filed comments, and who have histories of violating the methylene chloride and other chemical standards.

**55. *Procedures for Invoking Legitimate Trade-Secret Protection.*** Although the F.O.M. refers to job and process description as the only company-related information from chemical sampling that might not be disclosable under FOIA, OSHA does have other procedures that allow a company to designate the identity of a substance they produce or use as a trade secret. The "Field Inspection Reference Manual" (FIRM) superseded the F.O.M. in 1995 (although certain sections of the F.O.M., including the "Disclosure" chapter, are not addressed in the FIRM and remain in effect). Attached as Exhibit 15 is a true and correct copy of Section 6 (also known as Chapter II) of the FIRM, which governs all procedures surrounding the inspection itself. Part A(3)(i) of Chapter II

instructs the OSHA inspector, during the opening conference at the worksite before the “walkaround inspection” begins, to “ascertain from the employer if the [designated] employee representative is authorized to enter any trade secret area(s),” an instruction that clearly implies that the employer has the right to identify such areas during the opening conference. Then, Part A(4)(g) allows the employer to “identif[y] an operation or condition as a trade secret,” and instructs the CSHO to label any information obtained in such areas as “ADMINISTRATIVELY CONTROLLED INFORMATION/ RESTRICTED TRADE INFORMATION.” Thus, OSHA and the regulated community know that the employer has *both the right and the obligation to assert trade-secret protection at the time of the inspection*—certainly not years or decades later.

56. During my tenure as Regional Administrator, CSHOs whom I supervised conducted more than 6,000 inspections. I recall only a handful of instances in which companies asked the CSHO to label certain information as confidential. For example, on rare occasions companies asked the inspector to use a second videotape when documenting conditions on a particular assembly line or process; when public requesters asked for the case file under FOIA, we would release only a copy of the primary videotape, and not the one marked confidential. *On no occasion during any of these inspections do I recall a trade-secret assertion involving a sample result*, as opposed to video or photographic evidence, or to notes about the temperature, conditions, etc., under which a production process was conducted. *This is no surprise, because as I pointed out earlier, OSHA sets enforceable exposure limits only for a handful of the most common and widely-used industrial substances.* This implies that claims of “confidentiality” as to the use of one or more of these very common substances should be treated with some skepticism over and above the belated nature of these claims that were not made at the time of the inspection. I believe the most likely response by a CSHO to a hypothetical request by an employer that “if you find any ‘Chemical X’ in my workplace air, please label the result as confidential” would be “I don’t intend to have the sample analyzed for Chemical X anyway.” For these reasons, I believe that: (1) rarely *if ever* would the CSHO insist on sampling for a substance for which the employer wished to assert confidentiality; and (2) if such a request were ever made, the result would not be included in the database I have requested, or could easily be removed. It bears repeating that I know of no instance where

such a request has ever been made by an employer—and that any such request could not be honored if the Agency issued a citation for employee overexposure to the substance; in that case, the fact that the employer uses the substance would automatically become public knowledge as part of the Web-based enforcement database (see Paragraph 54 above).

57. In addition, it is my expert opinion as an industrial hygienist that air sampling results *per se*, even in hypothetical cases where the substance involved is in fact integral to a confidential manufacturing process, are simply not informative enough to constitute a risk of competitive harm. The sampling result is in fact an indication of the amount or proportion of the ingredient that does *not* become part of the finished product—by definition, it is informative about the amount or proportion that workers are exposed to, which derives from the fraction of the substance that is released during the process. Sampling results reveal much more about the adequacy of workplace controls than they do about processes themselves. A competitor who wished to know the amount of a proprietary ingredient in a product would be led severely astray by inferring anything from the air sampling result—it would be much easier and more accurate simply to analyze the final product itself via “reverse engineering.”

***K. OSHA and its Sister Agencies have Freely and Repeatedly Given out the Requested Information in the Recent Past***

58. ***Policy and Practice of OSHA’s Sister Agencies.*** OSHA’s two sister agencies, who together share with OSHA the mission of protecting U.S. workers from safety and health hazards, routinely publish sampling data, with company names attached, on the World Wide Web, and have done so for many years. DOL’s Mine Safety and Health Administration has a Website, the “Data Retrieval System” (DRS), where all sampling data in mines (coal, metal, non-metal, etc.) is accessible to the public. Exhibit 16 is a true and correct copy of a “screenshot” from that Website (<http://www.msha.gov/drs/drshome.htm>) that shows the sampling history of a mine

operated by the Climax Molybdenum Co.; note that substances such as beryllium are included in this particular printout, and that concentrations both above and below legal limits (i.e., in-compliance as well as out-of-compliance samples) are fully disclosed.

59. Similarly, the National Institute for Occupational Safety and Health (NIOSH, a part of the Centers for Disease Control and Prevention, and the agency created with OSHA by the 1970 Occupational Safety and Health Act), conducts Health Hazard Evaluations (HHEs) in response to concerns raised by employees or by management (see <http://www.cdc.gov/niosh/hhe/HHEprogram.html> for a description of this program).

Note that NIOSH conducts these on-site evaluations under the statutory authority of the OSH Act, Section 20(a)(6), and that NIOSH considers it has “non-negotiable rights” to enter the workplace for this purpose, and to conduct air sampling and employee medical tests. As of August 10, 2006, *a total of 2,141 complete HHE reports were publicly available on this Website*: each HHE report clearly identifies the company name and address on the cover, and typically contains extremely detailed information about the concentrations of potentially hazardous substances NIOSH staff found during the evaluation. Exhibit 17 is a true and correct copy of excerpts from the most recent HHE report (hazards at the Engineering Fabrics Corp. facility in Rockmart, Georgia) available on the NIOSH Website as of August 10, 2006—see especially Tables 2 through 14, which provide much more detailed information than I requested from OSHA on exposures. NIOSH does provide for protection of trade secrets, but as with OSHA, claims of confidentiality must be made *at the time of the evaluation, not retroactively*—the description of “Procedural Rights of the Employer” on the HHE Website clearly states that the employer has the right “To identify, at the start of the investigation, information that is considered trade secret, and to have that information safeguarded by NIOSH unless NIOSH follows procedures outlined in 42 CFR 85.7(b) to remove the trade secret designation from such information. (These procedures provide an opportunity for the employer to defend the trade secret designation.)” (emphasis added).

60. ***Previous Releases.*** In addition to the extremely common practice of providing sample information in case files for specific companies (see Paragraph 53 above), *OSHA has also made substantial portions of the database itself available to academic*

*researchers—and even to advocacy groups who argue for stricter regulations and tougher penalties against employers—freely in the past, **and with company names and inspector ID numbers included.***

61. **Overview of Past OSHA Practice in Disclosing Sample Data.** I found approximately 20 articles in the peer-reviewed literature (by searching the definitive “PubMed” database of health science literature, using the search terms “OSHA database” and “OSHA IMIS”), showing some of the instances over the past 15-20 years in which academic researchers have analyzed substantial portions of the SLTC database, asking similar questions to the ones I hope to address in my research. Attached as Exhibits 18 and 19 are true and correct copies of the results of these two searches. Note that some of these investigations analyzed all OSHA samples (in a given time period) for a single substances, regardless of the industry sector involved, while others analyzed all samples taken in a given industry sector, regardless of which substance was detected. In my professional opinion, OSHA must have supplied every one of these researchers or groups with the company names where each sample was taken, simply because (as discussed in Paragraph 46 above) it is impossible to properly analyze data of this type without being able to distinguish multiple samples taken at the same location and time from samples taken at totally different locations and/or times. Nevertheless, either by perusing the text of the original articles or by contacting the researchers personally, I have ascertained directly for several of these articles that OSHA freely provided company names in numerous cases in the past (and in many of these cases OSHA also provided researchers with the “old” CSHO ID numbers—the ones that could possibly lead to information about the identity of the inspector, unlike the current (“new”) IDs that are completely unidentifiable (see Paragraph 72 below). The next eight paragraphs will establish this pattern of OSHA’s behavior before my current FOIA requests.

62. First, in addition to this pattern of OSHA’s past practice, it is also easy for the public to find assurances that OSHA in fact has a general policy of providing these data upon request. One of the top five “hits” on a Google search of “occupational exposure data” is the 1994 EPA publication **Guidelines for Statistical Analysis of Occupational Exposure Data**, which is currently available at

[http://permanent.access.gpo.gov/websites/epagov/www.epa.gov/opptintr/exposure/docs/stat\\_guide\\_occ.pdf](http://permanent.access.gpo.gov/websites/epagov/www.epa.gov/opptintr/exposure/docs/stat_guide_occ.pdf). On page 16 of that guide, readers will find the following statement (emphasis added):

B. Obtaining Data From OSHA

The largest number of measurements for an existing chemical is generally located through accessing the OSHA National Health Sampling Results by Inspection (OSHA report: OHR 2.6). These data can be obtained by written request to:

U.S. Department of Labor  
Occupational Safety and Health Administration  
Director, Office of Management Data Systems  
Room N3661  
200 Constitution Ave., N.W.  
Washington, D.C. 20210  
(202) 219-7008

***Information provided for each facility includes company name and address, SIC code, inspector code, OSHA office, date and reason for visit, job title, exposure value, number of similarly exposed workers at the time of the inspection, and type of exposure (peak/8-hour TWA, personal/area). No information is provided on controls, type of process, monitoring method, concentration of chemical in process, or demographics of the exposed workers.***

Note also that the “Acknowledgments” section of this document lists several peer reviewers who worked on the guide, among them Keith A. Motley of OSHA, who was an industrial hygienist at the Salt Lake Lab at the time the report was reviewed, and is now the Division Director at the Lab responsible for the sampling database. OSHA, therefore, clearly knew that EPA was alerting the public to the availability upon request of air sampling data with company names included, and did not object to this characterization. A similar representation about the availability of the data with company names attached can be found in another EPA document, entitled “User’s Guide to Federal Accidental Release Databases” (September 1995, EPA 550-B-95-001), which was written by a 15-member interagency task force that included Charles Adkins, a career SES manager at OSHA who at that time was director of the Directorate of Technical Support and responsible for all the activities of the Salt Lake lab. That document describes the IMIS database as follows (page 33):

The Integrated Management Information System (IMIS) is an Occupational Safety and Health Administration (OSHA) database that contains records of workplace inspections conducted by OSHA... The database is a result of inspection and information gathering, covered by Section 8 of the Occupational Safety and Health Act of 1970, 29 USC 657. The database is used primarily as a management information system to track OSHA's activities. It maintains a record of OSHA's activities at each workplace that has been inspected. Data include **name and address of the worksite**, employment level, results of the inspection including all standards violated, abatement dates, any penalties assessed, **and air sampling results**. (emphasis added).

Again, in this case senior OSHA personnel participated in drafting an EPA document that informed the general public that air sampling results, with company names attached, were routinely available from OSHA.

**63. Coble article and dissertation.** Coble, Lees, and Matanoski published an article in 2001 (a true and correct copy of which is attached as Exhibit 20), in which they received from OSHA all samples taken during a 19-year period (1979-1997, inclusive) from all establishments in the pulp and paper industry. The purpose of this article was to evaluate time trends in exposures to 32 toxic substances in this industry, and to evaluate OSHA's efforts to monitor those exposures. According to their published paper, OSHA provided Coble et al. with 9,933 sample results, involving 171 different substances; the researchers used these data to demonstrate that worker exposures for most hazardous substances used in this industry consistently decreased during this 19-year time frame (although the number of measurements OSHA made annually in this industry also decreased, from a high of 350 measurements nationwide in 1991 to a low of 60 such measurements in 1997). Note especially that p. 264 of the article makes plain that OSHA provided the researchers with, among many other data fields, "the name, address, and four-digit SIC code of the establishment" (emphasis added). I found even more detail on OSHA's willingness to provide the company names by examining Dr. Coble's doctoral dissertation from 2000, which is available at the library of the Johns Hopkins School of Hygiene and Public Health. Exhibit 21 is a true and correct copy of the cover page and pages 144-146 of Coble's dissertation, which documents the correspondence between Coble and OSHA that resulted in his being given the nearly 10,000 sample results in electronic form. Page 144 documents a letter Coble sent to OSHA in January 1998,

asking (without invoking FOIA) for these data. Several weeks later, as seen on p. 145 of the dissertation, OSHA mailed Coble all the data he requested, and asked him to reimburse the Agency \$27 for the cost of providing the diskette(s?) mailed to him. Page 146 reproduces the first page of the report OSHA provided Coble, clearly documenting that both company names and “old” CSHO IDs were provided without objection or redaction. For example, this page reveals (item #1) that in 1988, an inspector in the Augusta, Maine, OSHA office, whose last name begins with “B” and whose Social Security number ends in -7453, took samples at the S.D. Warren-Scott Paper Co. facility at 89 Cumberland St. in Westbrook, ME, and found both “particulates, not otherwise specified” and crystalline silica present in workplace air at the facility, in concentrations well below the applicable PELs (“severity index” less than 1.0 for both measurements).

64. ***Teschke et al. article.*** This research group, from the University of British Columbia and the University of Washington, published a study in 1999 analyzing exposure to wood dust (a known human carcinogen) in all industries where it was present during OSHA inspections between 1979 and 1997 (a true and correct copy of this article is attached as Exhibit 22). The acknowledgements to this article make clear that OSHA (in the person of Bruce Beveridge of the Office of Management Data Systems, or OMDS) provided all the data requested (1,841 measurements) without objection or delay. Significantly, page 582 of the article notes that “In addition to the wood dust measurement data, we also requested all available supplementary datafields. These included ... the establishment name.” (emphasis added). It is clear from the article that the researchers used the establishment name (by including it as a variable in their regression model that tried to explain the average concentration of wood dust as a function of various explanatory variables), in order to avoid the misimpressions that would be caused by failing to account for “repeated measurements” in identical locations.

65. ***Melville and Lippmann article.*** In 2001, these investigators published the paper “Influence of Data Elements in OSHA Air Sampling Database on Occupational Exposure Levels” (a true and correct copy of which is attached as Exhibit 23), which makes clear that they received from OSHA all of the SLTC air sampling data collected between 1979 and 1997 (although for the purposes of this paper, they only analyzed exposures to

asbestos, toluene, and formaldehyde among certain occupational groups). The authors prominently “thank Joe DuBois, Acting Director, Office of Statistics, Occupational Safety and Health Administration, for providing access to data from the IMIS from which all of the air sampling and inspection data used in this study were drawn,” and nowhere mention that they needed to make their request under FOIA in order to obtain all these data. It is clear from the article that the data OSHA freely provided included company names for all sample results. On page 885, the authors observe that “Records in the IMIS include information on characteristics of affected establishments, including the name and address of the employer, the number of employees employed at the firm, and the union status of the workforce” (emphasis added). It is further clear that the authors received and used company-name information, as a key aspect of their analysis was the comparison of three different statistical models to analyze data for each exposure, one (Model 3) that used as raw material the “individual exposure measurements in the analysis, regardless of whether more than one measurement was taken in an establishment on the same date,” and two others that used weighted or unweighted calculations of “the establishment means” (that is, the average of a series of measurements taken in the same facility on the same date). The authors could simply not have analyzed these data in such fundamentally different ways without being able to see directly from establishment-name data which samples were replicates and which were not. I spoke with Dr. Melville, who is currently employed by the IBM Co., in March 2006, and he confirmed that he received the data in electronic form from OSHA (“informally, without making the request under FOIA”). Dr. Melville read to me the first several entries from the data he received, and clearly provided the company name and address to me for each of the sample results. I sent him an e-mail on March 16, 2006 (a true and correct copy of which is attached as Exhibit 24), after he informed me that he had decided not to send me several pages printed from these files, as he had previously offered to do, because he was concerned about possible repercussions if OSHA believed he was cooperating with me in this case.

66. ***Gomez article and dissertation.*** Exhibit 25 is a true and correct copy of the cover page and Page 27 of the 1995 doctoral dissertation of Manuel Gomez. The Declaration Dr. Gomez provided indicates that although he no longer has copies of the data OSHA

sent him in approximately 1993, he clearly recalls receiving the data with company names attached, as clearly indicated on p. 27 of his dissertation. A key methodological improvement in his dissertation was the development of various ways to handle the problem of replicate measurements in the same establishment at the same time—which could simply not have been even attempted without the establishment names and dates provided to him by OSHA, as he attests they were.

**67. *Public Citizen Data.*** In addition to all these examples of OSHA freely providing sampling data with company names to academic researchers, I know of at least one instance in which OSHA freely provided these data to an advocacy group whose interests are generally opposite to those of industry. Exhibit 26 consists of a true and correct copy of print-outs I received via fax on March 16, 2006, from Dr. Peter Lurie of Public Citizen Health Research Group, documenting that OSHA provided him on September 27, 2000, with all the beryllium measurements between 1/1/90 and 8/31/00 contained in the SLTC database. Note, for example, that Page 2 of this printout clearly indicates that three beryllium measurements were made on 11/13/90 at the S.D. Warren Paper Mill in Hinckley, Maine, and that an inspector whose last name begins with K and whose Social Security Number ends in -9643 conducted the inspection (i.e., OSHA released the “old” CSHO ID field with this report). Page 3 shows several in-compliance measurements for beryllium at the Bath Iron Works.

**68. *Past Releases have Exposed No Confidential Information.*** Perhaps most importantly, I note that none of the articles and dissertations I cite above mentioned *even a single company name*. This merely reflects common scientific practice: researchers analyze datasets in order to draw generalizable conclusions about them, not in order to “gossip” about individual situations. Even in cases where a specific establishment becomes the subject of research, academic “etiquette” commonly takes pains not to disclose particulars. For example, the Piltingsrud et al. article is all about a specific shower-curtain manufacturer, but there was no need to refer to it in terms other than “the company.” In my own academic work, I have had access to many types of data that identified (or made obvious to me) specific companies and individuals, and yet have never written about any of these details. For example, I wrote a law review article in

1989 asserting (among other things) that chemical companies sometimes abandon toxicological studies when they do not convince the regulatory agency involved to loosen its standards. I bolstered this contention by quoting the research director at a company I had visited, who complained to me about the disparity between the money they spent to show a chemical was safer than EPA thought it was and the (meager) amount by which EPA lowered the relevant exposure limit in response to the new information. I could certainly have made this more compelling by giving particulars about the company name, the individual I was paraphrasing, and the chemical involved, but that simply is not how mainstream researchers usually handle such information.

69. In reading all of the public comments OSHA received in response to its Federal Register notice about my lawsuit, *I note with particular emphasis that no commenter at any point asserted that any harm has ever been done by the previous releases of substantial portions of the air sampling database (or by the routine posting on the Web of violations involving specific substances, or by the routine release under FOIA of case-file information)*. This is consistent with my experience as Region VIII Administrator. It would be very edifying in this context to know just how many “reverse FOIA” actions have been brought or threatened as a result of these releases: I certainly know of none. One would assume that if any of the previous recipients of the data had ever even mentioned a specific company’s use of any chemical—whether or not the company actually cared whether this particular substance was revealed—someone would have held this up as evidence of past harm. The lack of such concern is even more striking given that perhaps the nation’s leading watchdog group concerned with corporate inattention to worker health—Public Citizen’s Health Research Group—is one of the recipients of a large portion of the database (essentially all of the beryllium and the chromium measurements). If Public Citizen, or anyone else, had ever tried to “solicit alleged victims for class action lawsuits,” made “unwanted and unduly alarming solicitations of employees,”<sup>14</sup> revealed trade secret information, or provided information useful to terrorists, we would certainly have heard about it in the recent set of comments. Instead, the comments all refer to these activities as ones that *could* happen, presumably because

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<sup>14</sup> This quote, and the one immediately preceding, are taken from the comments sent to OSHA by the National Association of Manufacturers (May 19, 2006)

they never *did* happen following any of the previous releases of data by OSHA. For the reasons stated above, I do not believe the database contains a single datum of trade secret information—but I nevertheless assert that I have no intention of passing on such information even were it to exist within this large database, in the tradition of those researchers and advocates who have seen the data already.

70. In case it is not already clear, let me reiterate without reservation that I am not seeking any confidential information identified as such at the point of inspection as set forth in OSHA's procedures.

71. **Summary.** Together, just the instances I was readily able to document consist of OSHA having released a substantial majority of all the hygiene data ever included in the Salt Lake database. Melville and Lippmann received all of the data, for all substances, between 1979 (the earliest year in my FOIA requests) and 1997 inclusive, and Public Citizen received all the beryllium samples taken between 1990 and 2000.

***L. OSHA Has No Legitimate Privacy Concerns Regarding the Inspector Identification Numbers in the First Request***

72. It is true that until several years ago, the CSHO ID numbers were poorly encrypted, and could have compromised the privacy of individual inspectors. For inexplicable reasons, OSHA originally assigned CSHO IDs by using the first initial of the inspector's last name and the last four digits of her Social Security number. Of course, this did not dissuade OSHA from giving out thousands of sample results with these CSHO IDs attached, in at least two cases I was easily able to document (see Paragraphs 63 and 67 above). Nevertheless, any privacy concern was made moot by OSHA's issuance of Directive ADM 1-1 of December 21, 2001, which changed every CSHO ID in the OSHA system to a new code that was completely random and contains no clues to identifying information (a true and correct copy of this Directive is attached as Exhibit 27). This Directive also resulted in OSHA changing all the data already in the sampling database,

so that all the “old” ID codes were replaced with the correct “new” ones for each inspector (as highlighted in Section VII of the Directive).

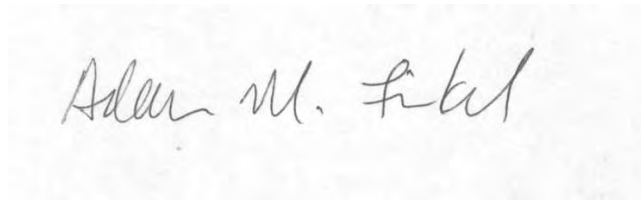
### *M. Conclusions*

73. In my opinion, OSHA’s unresponsiveness to my requests for more than a year’s time, followed by the assertion that a dataset it has repeatedly given out in the past contains trade secrets, can most easily be explained by a hostile animus in the wake of my whistleblower disclosures and subsequent Settlement Agreement, and the desire to treat me differently than previous FOIA requesters. I have another concern, however, which if valid also goes to the heart of FOIA itself. I have no idea what dose-response relationship for beryllium will best fit the data on sensitized and non-sensitized inspectors, or what trends in compliance, sampling intensity, and OSHA’s responsiveness to overexposures and other trouble spots will emerge from analysis of the larger database—that blank slate is what an analyst must begin with. ***But OSHA may know, better than I am currently allowed to know, that findings unfavorable to its performance will be apparent from the data they seek to withhold—and may perceive that I am particularly well-qualified by education and training to recognize such findings.*** If so, I respectfully suggest that the core purpose of FOIA is to allow citizens, certainly including those uniquely qualified to do so, to examine the workings of government—and therefore it would be particularly perverse to forbid such inquiry because the Agency with the information in hand is adverse to the likely conclusions. Such an outcome would have a chilling effect on independent scientific research, would severely hinder the ability of those who want to advance knowledge so as to reduce workplace risk and/or reduce needless compliance and liability costs to industry, and would chill the policing of government functioning by interested members of the public, an essential aspect of our open democratic system of government.

74. ***Additional Exhibits.*** Exhibit 28 is a true and correct copy of my first Freedom of Information request of June 28, 2005. Exhibit 29 is a true and correct copy of my August

12, 2005 appeal of the denial of my first request. Exhibit 30 is a true and correct copy of my second Freedom of Information request of August 12, 2005. Exhibit 31 is a true and correct copy of my September 20, 2005 appeal of the denial of my second request.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information, and belief. Executed this 10<sup>th</sup> day of October, 2006, in Princeton, New Jersey.

A handwritten signature in cursive script that reads "Adam M. Finkel". The signature is written in dark ink on a light-colored, slightly textured background.

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Adam M. Finkel, Sc.D.

## TABLE OF ACRONYMS AND ABBREVIATIONS

BeLPT	The “beryllium lymphocyte proliferation test” (a blood test that indicates whether a patient’s white blood cells have become sensitized to beryllium, placing him at high risk of developing chronic beryllium disease)
CBD	Chronic beryllium disease (an autoimmune lung disease, often fatal, uniquely caused by exposure to beryllium)
CSHO	“Compliance Safety and Health Officer”; i.e., an OSHA inspector
CSHO ID	The encrypted code, unique to each OSHA inspector, that identifies which inspector managed each inspection
DRS	The “Data Retrieval System” (sampling data collected by DOL’s Mine Safety and Health Administration, and available on the World Wide Web)
f/cc	Fibers per cubic centimeter, a measure of the concentration of asbestos fibers in workplace or outdoor air
FOM	OSHA’s “Field Operations Manual,” the “bible” for inspection and citation procedures
HHE	Health Hazard Evaluation (a comprehensive evaluation of concentrations of toxic substances at a particular U.S. workplace, conducted by NIOSH)
HSPP	Health and Safety Partnership Program (cooperative agreement among OSHA, the U.S. manufacturers of fiberglass insulation, and the major trade associations representing users of fiberglass)
IMIS	Integrated Management Information System (a series of databases, including the Salt Lake Technical Center database on air sampling results, collected and maintained by OSHA)
MB	Megabyte (one million bytes of information, each byte sufficient to represent one character or numeral)
NIOSH	The U.S. National Institute of Occupational Safety and Health (part of the Centers for Disease Control and Prevention)
NJEMS	New Jersey Environmental Management System, a database of company-specific information about permit

	decisions, control expenditures, etc.
OEB	The “OSHA Executive Board,” consisting of the Assistant Secretary and (approx.) the 20 most senior managers at OSHA Headquarters and in the 10 Regional Offices
OSHA	U.S. Occupational Safety and Health Administration
OSC	U.S. Office of Special Counsel (an independent federal Investigative and prosecutorial agency that (among other functions) investigates claims of whistleblower retaliation)
PEL	Permissible Exposure Limit (a concentration of a substance in workplace air that, if exceeded, constitutes a violation of a specific OSHA standard)
RFF	Resources for the Future, Washington, D.C.
SES	Senior Executive Service (the cadre of career senior managers in the federal system)
SIC	Standard Industrial Classification, a four-digit code used to separate all of U.S. industry into distinct categories
SLTC	Salt Lake Technical Center, the OSHA laboratory in Utah which receives, analyzes, and records all measurements of toxic substances OSHA collects during workplace inspections
UMDNJ	University of Medicine and Dentistry of New Jersey
$\mu\text{g}/\text{m}^3$	Micrograms per cubic meter, a measure of the concentration of a contaminant in air
WWS	Woodrow Wilson School of Public and International Affairs, Princeton University