Testimony of Michael Silverstein, MD, MPH
Senate Committee on Health, Education, Labor and Pensions
April 19 2012 Hearing
"Time Takes Its Toll:
Delays in OSHA's Standard Setting Process and the Impact on Worker Safety"

Chairman Harkin and Ranking Member Enzi, my name is Dr. Michael Silverstein and I appreciate the opportunity to testify before you today.

I am a physician certified in the specialty of occupational medicine with nearly 40 years of experience in workplace safety and health. I recently retired from the Washington State Department of Labor and Industries where I directed the State OSHA Program for ten years. My previous positions include Director of Policy for federal OSHA, Washington State Health Officer, and Assistant Director for Occupational Safety and Health for the United Automobile Workers. I have also practiced family medicine and occupational medicine. I am currently on the faculty of the University of Washington School of Public Health and Community Medicine as a Clinical Professor of Environmental and Occupational Health. I also just completed a two-year term as Chair of the National Advisory Committee on Occupational Safety and Health (NACOSH).

During my career I have directly participated in occupational safety and health regulation and enforcement as a federal and state official. While working in the private sector I also engaged actively in all stages of the regulatory process. I have experienced the satisfaction of seeing protective rules adopted and implemented quickly as well as the frustration of watching important regulatory initiatives delayed and abandoned.

SUMMARY

1. **Nearly 40 years after the OSHAct was signed the national toll of preventable workplace injury, illness and death remains appallingly high.** The most recent published study of workplace injuries and illnesses by Dr. Paul Leigh has documented 5,600 fatal injuries, 53,000 fatal illnesses and more than 9 million non-fatal injuries and illnesses every year for total estimated annual costs of $250 billion.[1] The human impact and national cost for these predictable and preventable losses is unacceptably huge.

2. **OSHA's rules have kept workers from being killed, but roadblocks have interfered with forward progress.** Congress intended rulemaking to be one of the principle vehicles for OSHA to ensure that workers return home safe and healthy every day. OSHA had a good start with rules protecting workers from asbestos, vinyl chloride, coke oven emissions, arsenic, lead, cotton dust and hazards associated with power transmission and generation, scaffolding, and mechanical power presses. There is strong evidence that these and other OSHA rules have been effective in protecting workers for reasonable costs with no evidence of interference with competitiveness, productivity or profits.[2] Simply put, OSHA regulations have saved lives without killing jobs. However, in recent years myths about rulemaking have overshadowed this reality. As a result, procedural and political roadblocks have brought OSHA rulemaking to a virtual halt.

   If there is a crisis it is not overregulation, but persistently deadly unregulated hazards such as silica, workplace violence and combustible dust. For example, the U.S. Chemical Safety Board (CSB) issued a report on the dangers from combustible dust in 2006 after reviewing nearly 300 serious fires and explosions that killed 119 workers, including a 2003 plastic dust[3] explosion in Tennessee that killed 7 workers and a 2003 plastic dust[4] explosion in North Carolina that killed 6 workers. The CSB recommended that OSHA conduct rulemaking to prevent these deadly explosions.[5] Just two years later, while OSHA was struggling with the bureaucratic obstacles to rulemaking, a huge explosion of combustible sugar dust at the Imperial Sugar refinery near Savannah, Georgia killed 14 workers. And three years after that 5 workers were killed in a series of iron dust explosions in Gallatin, Texas. Now, nearly six years since the CSB warning, it is a national embarrassment that workers continue to be blown up.

3. **Lost time means lost lives.** Between 1981 and 2010 it has taken OSHA an average of 7 years 9 months to adopt a workplace safety and health standard. Over 25% of the rules completed during these years took more than 10 years with several being delayed for nearly 20 years. And there have been even longer delays for some that have yet to be completed.

   For example, workplace exposure to silica dust (the basic ingredient in common sand) has long been known to cause crippling lung disease and lung cancer. OSHA started the rulemaking process for

a new silica standard in 1974 after the National Institute for Occupational Safety and Health (NIOSH) reported that the old standard left workers at high risk. Twenty-nine years later a draft was finally presented for review to a small business panel as required by the Small Business Regulatory Fairness Enforcement Act (SBREFA). After eight more years rulemaking documents were submitted for OMB review under Executive Order 12866. Today after yet another year the silica proposal remains handcuffed within OMB. Assuming a best-case scenario after this hearing, it will still take another 3 years for a new silica rule to be adopted - forty-one years after the process started! OSHA has estimated that 60 worker deaths a year would be prevented by reducing the standard to the levels recommended in 1974. By 2015 we will have lost the opportunity to prevent nearly 2500 deaths.

4. **When problems are found, we need to find solutions.** The GAO report on OSHA standard setting correctly identifies many of the reasons OSHA rulemaking has slowed down, but the report falls far short on recommendations for improvement. A practical, effective action agenda should include at least the following:

   - OSHA and NIOSH should be required to work together to establish a shared priority list for rulemaking. This should be done with substantial stakeholder input, similar to the priority process OSHA began in the mid 1990s but later abandoned.

   - OSHA should work more closely with NIOSH and EPA on risk assessments and feasibility analyses that are required for rulemaking. This should include a new national survey of workplaces to get detailed information on worker exposures and control measures for hazards on the priority list.

   - OMB should acknowledge that OSHA's public hearing process is especially robust, going well beyond the requirements of the Administrative Procedure Act. An independent administrative law judge presides. Witnesses present information, analysis and opinions and are challenged through cross-examination. All issues of concern to OMB are discussed and debated on the record – including the need for regulatory action, economic impacts, potential alternatives, and technological and economic feasibility. OSHA then makes decisions based on the evidence and testimony. If challenged it must be able to prove in court that its actions are "supported by substantial evidence in the record considered as a whole." Given this openly deliberative

process the OMB review only slows down the rulemaking without adding substantial value. OMB should limit itself to very cursory reviews or simply exempt OSHA from the review requirements of EO 12866.

- OSHA's rules for more than 400 dangerous chemicals have not been updated for almost forty years. Congress should direct OSHA to update these obsolete permissible exposure limits (PELs) using an expedited process to adopt contemporary consensus standards that have received widespread support by reputable national or international organizations.

- Congress should be more willing to step in when the normal rulemaking process fails in a timely way to protect workers from dangers. This approach has worked well recently in Washington State where two safety and health rules were required by statute. In one of these the Legislature directed the State OSHA program to develop rules to protect health care workers from exposure to chemotherapy and other hazardous medicines. The rules had to be consistent with but could not exceed provisions in existing NIOSH Guidelines. The second rule requires employers who are cited for violating safety and health regulations to correct the hazards promptly even if they have appealed the citation unless they seek and are granted a stay. In both cases the State OSHA program was able to complete the process in a twelve-month period.

- Improving standard setting is necessary but not sufficient. Public employees in 31 states and territories are completely exempted from the protections of the OSHAct. While public employees in the other 27 states and territories may experience long delays they at least enjoy protections once rules have been adopted. The rest have remained out in the regulatory cold for 38 years. This is a gap that Congress can and should close.

5. **A bad situation could become worse.** Several proposals on regulatory process currently before Congress will predictably slow OSHA's standard setting process even further. For example, the Regulatory Accountability Act will require cost-benefit analysis for all conceivable alternative approaches to a proposed new rule, a requirement that will grind a slow process to a virtual halt. We need to be moving in the other direction. Most OSHA rules adopted before 1981 were completed with greater speed than is now routine. The rules for asbestos, coke oven emissions, arsenic,

cotton dust, and lead were all adopted within one to four years. There is simply no evidence that any of these was less protective, more burdensome, more costly, less effective or less supported by scientific evidence than subsequent rules subject to the current procedures. We created barriers based on false alarms and the need now is to lower them so that worker protection can proceed again without delay. It is no exaggeration to say that lives are at stake.

RULEMAKING IN SLOW MOTION: THE GAO REPORT ON OSHA STANDARD SETTING DOCUMENTS A BROKEN BUREAUCRATIC PROCESS

It is disturbing but not surprising that GAO's central finding in its report on OSHA standard setting is that between 1981 and 2010 it has taken OSHA an average of 7 years 9 months to adopt a workplace safety and health standard. More troubling is that over 25% of 58 rules completed during these years took more than 10 years with several being delayed for nearly 20 years.

And still more distressing is that there have been even longer delays for some important rules that didn't make it into the GAO report at all because they have yet to be completed. Most notably, workplace exposure to silica dust (the basic ingredient in common sand) has been known since ancient times to cause chronic, life threatening scarring of the lung. OSHA's standard for airborne silica was adopted in 1972, grandfathered in from an older consensus standard. Just two years later NIOSH issued a formal statement declaring OSHA's rule to be inadequate and recommending that it be strengthened.[6] OSHA agreed and started rulemaking in 1974 by issuing an Advance Notice of Proposed Rulemaking but now 38 years later OSHA has still not been able to publish a proposed rule and schedule public hearings.

During this long period the need for a stronger rule has become more compelling. The International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP) have both listed silica as a known human carcinogen. The Bush administration designated silica as a high priority in its Fall 2002 regulatory agenda. A draft proposal was reviewed in 2003 by a small business panel under the Small Business Regulatory Fairness Enforcement Act (SBREFA). In February 2011 another draft and a peer reviewed risk assessment were submitted for OMB review under Executive Order 12866. After four months of OMB silence Senators Harkin and Murray and Representatives Miller and Woolsey wrote to OMB Director Jacob Lew expressing frustration with OMB's "paralysis by analysis" and urging

that the proposal move forward for full public review. After 6 more months I wrote a letter, in my capacity as Chair of NACOSH, to the Secretaries of Labor and HHS expressing distress at the extraordinary delay and urging them to enhance their efforts to get OMB to finish its review.

Now, as this hearing proceeds, four additional months have gone by and the silica proposal still sits handcuffed within OMB. Let's presume a best case scenario following this hearing - the OMB handcuffs are removed, the proposal is immediately published by OSHA, and the rulemaking then continues without further exceptional delay. Given the average time of 3 years and 3 months from the publication of a proposed rule to final adoption, a new silica rule would not be completed until July 2015 - forty-one years after the process started!

REGULATORY INERTIA HAS DEADLY CONSEQUENCES

This record of regulatory stupor is troubling because of ample evidence that lost time means lost lives. OSHA's preliminary risk estimate was that 60 worker deaths a year would be prevented by reducing the silica exposure limit to the level recommended by NIOSH in 1974. Forty-one years of delay means a lost opportunity to have prevented 2461 deaths.

Similarly, a significant number of lives and injuries could have been prevented by more timely adoption of OSHA's cranes and derricks rule that was published in 2010. This began in 2003 with a negotiated rulemaking process. During the six years before the process began there were 512 crane related fatalities. Unanimous agreement among the stakeholders on a new rule was reached in 2004, but extra procedural steps delayed adoption until 2010. During the six-year delay after agreement had been reached there were nearly 500 more crane deaths. During this period the State of California adopted its own rules for certification of crane operators and crane fatalities dropped from 10 during the three years before the California rule to two during the three years after the rule.

OSHA RULES, ONCE ADOPTED, PREVENT INJURIES AND SAVE LIVES

Additional studies have shown that once adopted and enforced, OSHA rules effectively prevent injuries, illnesses and deaths.

OSHA adopted its Lockout/Tagout rule[7] in 1989 after 12.7 years of rulemaking. Prior to the rule adoption OSHA determined that approximately 144 fatalities per year were due to unexpected

activation of machinery. In 2000 OSHA conducted a lookback review of the first seven years of the rule pursuant to the Regulatory Flexibility act and Section 5 of Executive Order 12866. The review found that the rule resulted in a 20% to 55% reduction in fatalities, or the prevention of 29 to 79 fatalities per year. If the rulemaking had taken half the actual time of 12.7 years this would have meant saving this many fatalities in each of 6.35 years, or 184 to 502 fewer fatalities.

Other OSHA rules have been equally effective. Between 1978 when the OSHA cotton dust rule was adopted and 2000 when OSHA evaluated its impact the rate of byssinosis (or "white lung" disease) among textile workers dropped from 12% to less than 1%. Similar reductions in injury, illness and death have followed adoption of OSHA rules for confined space entry, grain elevator safety, lead exposure, and blood borne pathogen protection.

Additional evidence comes from the SHARP research unit within the Washington State Department of labor and Industries, which for twenty years has been studying the effectiveness of workplace safety regulations. For example, after the State OSHA program adopted a new fall protection rule for the construction industry SHARP examined injury rates before and after construction companies were inspected for compliance with the new rule. When companies were cited for failure to comply and were required to come into compliance there were subsequent decreases in fall related injuries greater than in comparable companies that had no inspection.

Washington's SHARP program has also recently completed a ten-year analysis of worker compensation claims in the year following safety and health inspections. When companies were cited for failure to comply with safety and health rules and were required to come into compliance, there was a significant drop in serious injuries over the next year. This drop was 20% greater than in comparable workplaces that were not inspected.[8]

THE GAO FINDINGS WARRANT MORE ROBUST RECOMMENDATIONS

The evidence clearly indicates that finding ways to speed the rulemaking process even modestly would have significant positive impact on employers, employees and communities. The strength of the GAO study is in the detail and analytic depth with which it identified multiple causes of regulatory delay and many options for speeding the process. It was surprising to find that it offered only a single recommendation and disappointing that this recommendation

did no more than ask two agencies to work closely together, something that has been required by the OSHAct since 1971.

The findings in the report warrant a much more specific and substantive set of recommendations such as the following.

First, OSHA and NIOSH Should Improve Collaboration on Rulemaking:

- OSHA and NIOSH should work together to establish a shared priority list for rulemaking. This should be done with substantial stakeholder input, similar to the priority process OSHA began in the mid 1990s but later abandoned.[9] It should also be modeled on NIOSH's successful process for establishing its National Occupational Research Agenda (NORA).

- The OSHAct directs NIOSH to develop scientific criteria for OSHA rules and to publish such criteria annually. In its early years NIOSH developed a substantial number of detailed criteria documents with recommendations for new OSHA rules, but OSHA rarely acted on these recommendations and NIOSH stopped producing them. NIOSH should work with OSHA to develop new criteria documents that will provide the kind of details on exposures, risks, technological and economic feasibility that OSHA needs to support new rules.

- From 1981-83 NIOSH conducted an on-site survey of establishments in general industry to provide national estimates of potential exposures to chemical, physical and biological agents (National Occupational Exposure Survey or NOES). The survey also provided data on management's health and safety practices and policies. The NOES, and its predecessor National Occupational Hazard Survey (NOHS) from 1972-75, represented the most comprehensive source of data on the number of U.S. workers potentially exposed to specific hazards and the distribution of these hazards by industry and occupation. OSHA and NIOSH should work together on a new national survey that is specifically designed to provide information on worker exposures and feasible control measures for hazards on the regulatory priority list.

Second, OSHA Should Take Additional Actions:

- OSHA should work more closely with the Environmental Protection Agency on rulemaking. OSHA and EPA have similar requirements to base rulemaking on scientific assessments that estimate the nature and level of risks from exposure to environmental chemicals.

EPA's Integrated Risk Information System (IRIS) contains information on human health effects for more than 540 chemical substances. This information could potentially be very useful to OSHA. OSHA and EPA have written agreements on cooperation for enforcement activities but not rulemaking. They need to adopt formal arrangements to work together on risk assessments for rulemaking in a way that is mutually supportive and avoids redundancies.

- As noted in the GAO report OSHA's principle method for evaluating the feasibility of compliance with proposed new rules is extensive on site evaluations. These are extremely lengthy, labor intensive and costly, but it is not clear that they yield information substantially superior to that which can be derived from well-designed surveys. In Washington State scientifically designed stratified, random sample surveys of businesses are routinely used to support safety and health rulemaking. These have been found to meet the statutory requirements for assessment of small business impact, cost-benefit analysis, and technological feasibility determinations. By relying more heavily on survey data OSHA could proceed more quickly while still meeting the "best available evidence" test in the OSHAct. Since, according to OSHA, it currently takes at least one year for survey approval by OMB, as required under the Paperwork Reduction Act, this approach will only be fully effective if OMB would agree to expedite review for these rulemaking surveys or if Congress were to grant a Paperwork Reduction exemption to OSHA for these surveys.

- With a few notable exceptions[10] OSHA has adopted rules for one safety or health hazard at a time. This is like seasoning your food one grain of salt at a time. Even if each individual rulemaking could be completed more quickly than the current average of 7 years, the sheer volume of hazards would render this approach futile. OSHA could use its limited rulemaking resources more efficiently by concentrating on some rules of with broad, general impact. OSHA's current regulatory priority of rulemaking for Injury and Illness Prevention Programs is an example of this approach and deserves support. Other examples would be general rules for exposure assessment, medical surveillance and training.

Third, OMB Should Allow OSHA Proposed Rules to Move Forward:

- One of the steps in rulemaking that has repeatedly resulted in long delays is the review of proposed OSHA rules by the OMB Office of

Information and Regulatory Affairs (OIRA) as required by Executive Order 12866. This review covers the need for regulatory action, an assessment of potential costs and benefits, the anticipated effect on functioning of the economy and private markets, and an assessment of possible alternatives to the planned regulation. However, the OSHA public hearing process is especially robust, going well beyond the requirements of the Administrative Procedure Act and providing an open forum in which all issues of concern to OMB are discussed and debated on the record. An administrative law judge presides, agency officials participate, witnesses deliver testimony and are subject to extensive cross-examination, data and documents are introduced and discussed, and a formal record is kept. OSHA then makes decisions based on the evidence and testimony. If challenged it must be able to prove in court that its actions are "supported by substantial evidence in the record considered as a whole." Given this openly deliberative process the OMB review only slows down the rulemaking without adding substantial value. OSHA's process should be considered sufficient to warrant relatively cursory review, if not outright exemption, by OIRA.

Fourth, Congress Should Provide More Direction For Worker Protection:

- OSHA attempted to update the PELs for more than 400 chemicals in a single rulemaking in 1989. The 11th Circuit Court of Appeals vacated OSHA's new rule 1992, finding that OSHA failed to analyze and provide evidence of significant risk, economic and technological feasibility for each of the individual chemicals. This decision has proven administratively insurmountable. As a result almost all of these PELs remain significantly obsolete and are widely judged to be insufficiently protective. Congress should direct OSHA to update these PELs by using an expedited process to adopt contemporary consensus standards that have received widespread support by reputable national or international organizations.

- As noted in the GAO report when statutes or court orders require OSHA to undertake rulemaking, the average time to adoption is 4 years, 7 months or about half as long as other OSHA rules. Congress should be more willing to step in when the normal rulemaking process fails to act in a timely way to protect workers from significant dangers. Congress, for example, should direct OSHA to act where another federal agency, within its own statutory mandate, has recommended that OSHA's rules be improved and

where OSHA has refused. This would apply, for example, to standing recommendations from the U.S. Chemical Safety Board regarding the hazards of combustible dust. Congress has done this before with good results, including statutory requirements for OSHA to strengthen its bloodborne pathogen standard, adopt rules to protect workers engaged in hazardous waste operations, and adopt a lead standard for the construction industry. In two other recent cases important safety and health rules were adopted in Washington State following statutory direction. In the first, the 2011 Legislature directed the state OSHA program to develop rules protecting health care workers from exposure to chemotherapy and other hazardous medications, specifying that the rules would be consistent with but would not exceed provisions in the 2004 NIOSH Guidelines (as updated in 2010). Also in 2011 the Washington Legislature ordered rulemaking to require employers who have been cited for violation of safety and health regulations to correct the hazards promptly even if they have appealed the citation unless they seek and are granted a stay until the appeals process is completed. In both cases the Washington Department of Labor and Industries was able to complete the process in a twelve-month period, including informal stakeholder meetings, publication of proposed rules and formal public hearings.

- Congress should give flexibility to OSHA to complete rulemaking in a more timely fashion without sacrificing quality by providing an option for the agency to adopt rules that are technology based, with affected industries shouldering the burden of proof to demonstrate infeasibility.

CLOSING REMARKS

In conclusion, successive waves of legislation, executive action and case law have created barriers to safety and health rulemaking resulting in significant delay with consequences that are demonstrably harmful and, in many cases, deadly. While GAO is to be commended for a reasonably thorough description of these problems, the report has failed to articulate meaningful solutions. Also, by limiting its assessment to the years since 1981 the report also has failed to identify two important problems that become apparent when assessing the full history of OSHA since its establishment in 1971.

- Most of the OSHA rules adopted before 1981 were completed with much greater speed than has now become routine. The rules for asbestos, vinyl chloride, coke oven emissions, DBCP, inorganic arsenic, cotton dust, acrylonitrile, lead, commercial diving, fire

protection, roof guarding, and electrical systems were all adopted within one to four years of initiation. There is simply no evidence that any of these rules was less protective, more burdensome, more costly, less effective or less supported by scientific evidence than subsequent rules experiencing the added procedural steps documented by GAO. This historical perspective suggests that we created barriers based on false alarms and that there is nothing to be lost by lowering them in the interest of worker protection.

- Perhaps the most glaring and indefensible example of regulatory delay is a feature of the OSHAct that is more basic than its particular provisions on rulemaking. Public employees in 31 states and territories are completely exempted from the protections of the OSHAct. While public employees in the other 27 states and territories may experience long delays they at least enjoy protections once rules have been adopted. The rest have remained out in the regulatory cold for 38 years – a much more extreme failure than anything reported by GAO. This is a gap that Congress can and should close.

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[1] Leigh, JP. (2011) Economic Burden of Occupational Injury and Illness in the United States. Milbank Quarterly, 89(4):728-772.
[2] Office of Technology Assessment, Gauging Control Technology and Regulatory Impacts in Occupational Safety and Health: An Appraisal of OSHA's Analytical Approach. Washington, DC, OTA, 1995.
[3] Phenolic resin dust explosion, CTA Acoustics plant, Corbin, TN
[4] Polyethylene dust explosion, West Pharmaceutical Services, Kinston, NC
[5] U.S. Chemical Safety and Hazard Investigation Board. November 2006. Combustible Dust Hazard Study. Washington, DC. Report # 2006-H-1.
[6] National Institute for Occupational Safety and Health. 1974. Criteria for a Recommended Standard: Occupational Exposure to Crystalline Silica. Washington, DC. DHHS(NIOSH) Publication No. 75-120.
[7] "Lockout/Tagout (LOTO)" refers to specific practices and procedures to safeguard employees from the unexpected energization or startup of machinery and equipment, or the release of hazardous energy during service or maintenance activities. According to OSHA compliance with the lockout/tagout standard (29 CFR 1910.147) prevents an estimated 120 fatalities and 50,000 injuries each year
[8] Foley M, Fan ZJ, Rauser E, Silverstein B. 2011. The Impact of DOSH Enforcement and Consultation Visits on Workers' Compensation Claims Rates and Costs, 1999-2008. SHARP Technical Report Number: 70-5-2011. http://www.lni.wa.gov/Safety/Research/Files/OccHealth/DoshEnforce19992008.pdf.
This study evaluated changes in the kinds of injuries most closely related to the rules that were being enforced. For example, falls and amputations were included because they are related to fall protection and machine guarding rules. But cumulative musculoskeletal disorders like tendinitis were not covered because there is no ergonomics rule that covers the risks that cause these injuries.
[9] See OSHA website at
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=NEWS_RELEASES&p_id=1151
[10] Successful efforts include rules for process safety management, personal protective equipment, and respiratory protection. An unsuccessful effort was rulemaking to update all the permissible exposure limits, which was rejected by the 11th Circuit Court of Appeals.