Testimony Of

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The Breakdown of OSHA Standard Setting

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Subcommittee on Workforce Protections
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My name is Frank Mirer. I am Professor of Environmental and Occupational Health at Hunter College of the City University of New York. Previously, I served as Director of the Health and Safety Department of the United Automobile, Aerospace, and Agricultural Implement Workers of American (UAW), International Union. I thank you for the opportunity to testify just before Workers Memorial Day, the time we specially focus on protecting workers. My testimony will focus on the need for OSHA to promulgate new safety and health standards for a host of chemicals and other hazards.

I've had more than 30 years experience in the OSHA standards process. I first testified before OSHA on the standard for lead on May 13, 1977. Since then, the UAW took the lead on successfully pushing OSHA to set three key standards, and participated in more than a dozen other processes leading to OSHA rules. I also participated in the UAW's so far incomplete battle for a standard for metalworking fluids.

My academic project is analyzing the regulatory process, so that policy makers can both implement standard setting and change the process based on sound science and objective data.

The key points of my presentation today are:

1. OSHA standards are necessary to protect workers.

2. OSHA standard setting has ground to a halt in the current Administration.

3. For chemical exposures, there are many examples of OSHA standards which allow exposures so high that workers to get sick.

4. Many obstacles to new OSHA standards have been imposed by Executive Orders, the Congress and the Courts.

5. Despite this, OSHA has the scientific backing and resources to set these new standards, if the staff were allowed to set standards.

My recent review, and long experience, show that OSHA, since 2001, has checked out of the standards business. Slow progress in earlier years has ground to a halt and may even be moving stealthily backward. OSHA has staff and other resources to set standards, but that staff has not been permitted to operate. Since 2001, this Administration set one new chemical standard, for carcinogenic chromium, under court order. That standard actually permits employers to increase exposure levels under some circumstances. Unions were forced to sue to get improvements, and that litigation still pends. Regarding employers' responsibility to pay for required protective equipment like respirators and wire mesh gloves, Labor Secretary Elaine Chao finally committed to issuing a final rule in response to a union lawsuit and a court ordered deadline. That rule was promised by November 2007. The rulemaking record was completed in 1999.

More than a year ago, a group of unions petitioned OSHA seeking the emergency standard to protect health care workers, first responders and others whose jobs might put them at risk during a flu pandemic. The Administration denied that petition. This places the entire country at greater risk of retransmission of respiratory disease through the health care system.

A union petition to expand the Process Safety Management standard to workplaces with reactive chemicals that could explode or burn has been ignored. This expansion would be important to the communities near dangerous facilities exempt from the standard.

A union petition to protect food processing workers against the deadly vapors of an artificial flavor ingredient, diacetyl, has likewise been denied. These vapors cause a devastating and potentially fatal lung disease among workers making microwave popcorn, and may pose a hazard to workers and consumers down stream.

This Administration removed about two dozen items from a long standing regulatory agenda, including protection of health care workers against TB, and several very important chemical exposure limits, including metalworking fluids. Many of the

initiatives left behind, like some rules for respirators, and recording workplace injuries, were takaways.

When the UAW sued OSHA for removing metalworking fluids from the regulatory agenda in 2001, in the face of continuing outbreaks of severe and disabling respiratory disease, the Administration defended the case saying resources were need to set rules for silica and beryllium. But silica and beryllium are still hanging from then to now in the pre-rule stage, without even a date when a notice of a proposed rulemaking or a proposed standard might be issued.

Apologists for this record cite the new obstacles to standards which have been erected since 1970. I agree, it's time to reduce those obstacles. But the obstacles don't fully explain the near complete halt. The first barrier to setting a new standard is getting the Labor Department to recognize that something needs to be done about a hazard. That's a political leadership decision. Once there's a decision to move forward, the task that causes the most delay is gathering business data to estimate costs. But, OSHA staff have figured out how to get that cost information. After that, the barriers, and sources of delay, are getting approval from the Office of Management and Budget to put a standard on the agenda, complete the small business (SBREFA) review, to release a proposed standard, and to finally promulgate the final standard. But, OMB is not a free agent. The same President who appointed the Secretary of Labor and Assistant Secretary of Labor for OSHA also appointed the heads of OMB and the Small Business Administration.

For all that, OSHA has the resources to start and eventually bring to conclusion several meaningful standards each year. It may be a few years from starting down the pipeline to finishing, but OSHA has proven it can sustain its burden of proof in court when it tries to protect workers' health. It's time to hold the Administration accountable for its record. Not only has little or nothing been finished, but the pipeline is empty for any future President.

Chemical exposure limits are very important, and I want to address these at some length.

My students are graduate students in industrial hygiene. In my toxicology class, first we look at scientific data about health effects, then we talk about exposure limits. My students ask me why California limits occupational exposure to carbon monoxide to half what OSHA allows, or why a dry cleaning chemical (perchloroethylene) exposure in California is limited to ¼ of what OSHA allows, or why OSHA allows 40 times more exposure to a solvent (ethoxyethanol) sometimes found in inks. The dry cleaning chemical is a possible carcinogen, the ink solvent is a reproductive toxin. Health science supports the stricter limits, and implementation in California proves their practicality. Each of these substances was on OSHA's list for rulemaking, and each was removed by the Administration.

My professional organization, the American Industrial Hygiene Association, polled its members for the leading OSHA issue, the leading Legislative Issue and the leading professional issue for 2007-8. The answer in each category was the same: PEL's.

Chronic illness arising from long term chemical exposures at work accounts for the large majority of known work-related mortality. Few of these victims are named on Workers Memorial Day, and many are not aware of the chemical cause of their illness. Reducing those known dangerous exposures is therefore the best opportunity to protect the lives and health of American workers. Recognizing the dangers of chemicals at work also would facilitate controlling those chemicals at home and in the community environment.

When OSHA was established in 1970, it inherited hundreds chemical exposure limits, based on the science of the '60s and before. Those limits were set with substantial involvement of chemical industry scientists through the American Conference of Governmental Industrial Hygienists (ACGIH). Those limits were not intended to be as protective as rules mandated by the OSHA law. Nevertheless, these Threshold Limit Values were a starting line for limiting chemical exposures.

In the more than three decades of OSHA's existence, the agency has issued new permissible exposure limits for only 16 agents or groups of agents. Eight of these were set in the '70s, 3 in the '80's, 4 in the '90's, and only 1 in the 21st century Most of these rules were triggered by union or public interest petitions, and defended in court by these same groups. These rules radically reduced permissible exposures from the 1968 levels, protected workers, transformed industries, and largely avoided inflated high costs projected by industry doomsayers. Those costs which were actually incurred included wages of workers fabricating and maintaining control equipment, and cleaning the workplace, so these rules likely created jobs.

My conclusions, based on detailed review of scientific and regulatory history of the standards set and standards not set, are that OSHA could have, and should have issued rules for dozens of additional chemicals. I want to emphasize that OSHA staff could have met the legal tests for proof, and the procedural requirements of setting standards, with the resources now provided.

Yes, industry litigants have persuaded judges to increase OSHA's burden of proof to set a standard. Yes, regulatory legislation has imposed additional steps, delays and economic tests which stretch out the process by years. Yes, the Office of Management and Budget has been empowered by executive orders to slow the standard setting process and challenge OSHA's expert scientific and engineering conclusions. For all of that, OSHA has the resources and scientific and engineering support to start several standards each year, and to bring these rulemakings to successful conclusion within four years. That is, if the OSHA staff are permitted to do their work.

The effects of OSHA failing to set new exposure limits can sometimes be seen in victims we can name. Here's a real story, documented in the scientific literature and the popular press.

In November 2000, Dave Patterson, a machine operator at a brake systems plant in Mt. Vernon, Ohio, initially reported breathing difficulties to his physician. In January 2001, machinist J.J. Johnson and set-up man John Gooch were hospitalized with hypersensitivity pneumonitis (HP), a serious disease that can lead to respiratory failure. Subsequently, additional HP cases developed as well as cases of bronchitis and occupational asthma (OA).

On February 5, 2001, an OSHA inspector responded to a complaint from one of the victims. The inspector issued no citation for MWF exposure because they found management in compliance. OSHA gave management a clean bill of health for metalworking fluids.

Workers continued to get sick. In June 2001, a National Institute for Occupational Safety and Health (NIOSH) Health Hazard Evaluation was called in by management and UAW Local 1939. By November 2001, 107 workers (out of 400) had been placed on restriction and 37 remained on medical leave. NIOSH identified 14 with occupational asthma, 12 with hypersensitivity pneumonitis, three with occupational bronchitis.

The UAW worked closely with TRW and NIOSH to protect our members. Ventilation was improved to bring exposure into compliance with UAW and NIOSH recommended limits. Eleven months after the first case, new cases stopped appearing, but some victims were still unable to return to work. Recent reports from our members and the press show that previous victims still suffer.

This was one of at least a dozen "outbreaks" of illness and disability from HP in machining plants which are in compliance with OSHA's exposure limits. These outbreaks were and are epidemics of acute severe illness on top of the endemic risks of asthma, other respiratory conditions, and most likely cancer.

Well before OSHA's 2001 inaction in Ohio, the problem was known to OSHA and to the industry. In 1993, the UAW petitioned OSHA for an emergency temporary standard for metalworking fluids based on research largely conducted jointly in the auto industry. OSHA denied that petition, but did convene an industry-labor-public health standards advisory committee. The automobile industry responded in 1995 and 1997 by convening symposia on the health effects and control measures for exposure to metalworking fluids. Both concluded that the effects were real and controls were feasible. The UAW negotiated exposure limits lower than OSHA with the auto industry employers, as well as other control measures. The year 1997 also saw the crafting of an American National Standards Institute (ANSI) standard on mist control for machine tools and a workshop was held to identify the cause and prevention of hypersensitivity pneumonitis. The following year (1998) NIOSH

completed a "Criteria Document" on metal working fluids (a proposal to OSHA for a standard), concurring with the UAW recommended limit. The OSHA Standards Advisory Committee voted 11-4 that OSHA issue a comprehensive standard to drastically reduce the mist levels to which workers are exposed and to enact strict requirements for fluid management. OSHA responded to the SAC report by issuing voluntary guidelines, but left the new standard on the regulatory agenda.

So where was OSHA during the TRW outbreak in the year 2000? As workers were being hospitalized, an OSHA inspector was giving a "clean bill of health" to the plant, based on a 30+ year old standard that would allow a typical worker to inhale 1 pint of oil over the course of a working lifetime. And then, in October, 2001, OSHA deleted Metalworking Fluids (MWF) from the regulatory agenda, withdrawing the advanced notice of proposed rulemaking. OSHA acknowledged the respiratory illness from MWF exposure at prevailing and permitted exposure levels, but stated that asthma and hypersensitivity pneumonitis were "rarely fatal." The UAW petitioned the 3rd Circuit Court of Appeals to compel OSHA to restart the rulemaking. On March 24, 2004, that Court deferred to OSHA's decision NOT to act or start setting a standard.

Since 1970, scientific evidence and practical experience has identified workplace chemical causes of many instances of illness, disability and death among workers. Technical methods for estimating quantitative risks at various exposure levels – methods demanded by industry – demonstrate very large risks at very low exposures. Multiple studies have shown that widely distributed chemicals, like silica, are now known to cause cancer in humans. Lung cancer has been observed among workers exposed to silica at levels permitted by the current OSHA standard and prevailing in American workplaces and at American construction sites.

Organic dusts, like flour, are known to cause occupational asthma at exposure levels prevailing in American workplaces. A predictable fraction of asthma victims will die of that illness.

The most visible recent demonstration of the impact of OSHA's failure to move forward on new exposure standards was at the World Trade Center recovery site. The scientific literature and popular press recount the ongoing toll of disability and even death among recovery workers. Those accounts fail to connect the dots, that OSHA, and EPA, correctly reported that none of the measured exposures at the site violated outdated OSHA standards. OSHA and EPA may have measured the wrong chemicals at the wrong time, and have not taken mixtures into account, or special circumstances. Nonetheless, following OSHA standards allowed workers in large numbers got sick, nobody disputes that anymore.

The stories of Popcorn Workers Lung, and respiratory illness from metalworking fluids, include the same plot elements: devastating illness from exposure levels permitted by OSHA or not limited at all, no action or ineffective action from OSHA.

The standards process, when allowed to proceed according to law, drastically reduces permissible and actual exposures. The OSHA asbestos permissible exposure limit, revised several times, was cut to 1% of what it was in 1970, and even this limit leaves behind a substantial cancer risk. We still pay for the legacy of those old, high exposures. In the accompanying table, we see that OSHA's new rules have reduced allowable exposure by up to 1000-fold.

Unfortunately, the chemical hazard standards process nearly ground to a halt in the last decade. The most recent rule protecting against cancer-causing chrome compounds was issued last year only after a court order to regulate, and a court decreed time limit to get it done. The mandated reduction is not sufficient, but it's something. The standard promulgated before chrome compounds, the methylene chloride standard, began with a UAW petition, and ended by settling a UAW lawsuit. Allowable exposure was reduced to 5% of what was previously allowed.

Without a doubt, these delays in the standard setting process have been aggravated by congressionally imposed special reviews by "small" business employers [but not employees of small business], OMB imposed regulatory reviews, and increasing demands for detailed economic analyses. These have injected procedural Botox (botulinum toxin which paralyzes all muscles) into an agency already paralyzed by analysis. But the delays are also attributable to the failure of the OSHA political leadership and the Administration to support prompt action in promulgating additional standards.

The legislative fix to this impasse has at least three parts.

First, Congress has to hold the Administration's feet to the fire on the meager current regulatory calendar. In particular, OSHA must be directed to issue a proposed silica standard, hold hearing, and issue a final standard, each by a date certain.

Second, courts have severely limited the circumstances where OSHA can be compelled to move forward in standard setting. Meanwhile, management can sue OSHA whenever OSHA does make a new rule. OSHA should be required to meet a high threshold to defend refusing a petition for a new standard. The playing field should be leveled.

Third, Congress should authorize OSHA to adopt the current Threshold Limit Values (TLV) list on a one time only basis. TLVs are developed by ACGIH, a group of occupational health practitioners charged with investigating, recommending, and annually reviewing exposure limits for chemical substances. Generally, the TLV's are do not limit exposure as much as permissible exposure limits set according to the OSHA law. Often the values allow a significant risk of material impairment to health, and don't push as far as would be economically feasible for the industry. In part, these shortcomings in protection arise from the nature of the ACGIH and its TLV committee, a set of volunteer organizations, with limited resources. ACGIH is

not able to hold months of hearings, or hire specialized experts as OSHA might. But given OSHA's lack of action on setting new standards, the TLV's are a reasonable starting point in getting protection and future rulemaking. Congress should direct this action. Where there is substantial objection to the limit for a particular agent, and a showing of material problems with compliance with that limit, OSHA should be compelled to place that agent in line for complete 6(b) rulemaking on a clear timetable.

In conclusion:

1. OSHA standards are necessary to protect workers.

2. OSHA standard setting has ground to a halt in the current Administration.

3. For chemical exposures, there are many examples of OSHA standards which allow workers to get sick.

4. Many obstacles to new OSHA standards have been imposed by Executive Orders, the Congress and the Courts.

5. OSHA has the scientific backing and resources to set these new standards, if the staff were allowed to start the process.

Annotated Chronology of OSHA PEL's Showing Extent of Exposure Limitation

Substance	1910	Date	Previous	Final	Reduction
Asbestos	1001	1971	12 f/cc	5 f/cc	2.4
13 Carcinogens	1003	1974	NA	NA	
Vinyl Chloride	1017	1975	500 ppm	1 ppm	500
Asbestos	1001	1976	5 f/cc	2 f/cc	2.5
Coke Oven Emissions	1029	1977	0.2 mg/M^3	0. 15 mg/M^3	1.3
Inorganic Arsenic	1018	1978	0.5 mg/M^3	0.01 mg/M^3	50
Lead	1025	1978	200 ug/M^3	50 ug/M^3	4
DBCP	1044	1978		0.001 mg/M^3	na
Acrylonitrile	1045	1978	20 ppm	2 ppm	10
Cotton Dust	1043	1978	1 mg/M^3	0.2 mg/M^3	5
Asbestos		1984	2 f/cc	0.2 f/cc	10
Ethylene Oxide	1047	1986	50 ppm	1 ppm	50
Benzene	1028	1987	10 ppm	1 ppm	10
Formaldehyde	1048	1988	3 ppm	0.75 ppm	4
Cadmium	1027	1992	0.2 mg/M^3	0.005 mg/M^3	40
Methylenedianiline	1050	1992		0.01 ppm	na
Lead In Construction	1926.62	1993	200 ug/M^3	50 ug/ M^3	4
Asbestos	1001	1994	0.2 f/cc	0.1 f/cc	2*
Asbestos in Construction	1926.1101	1994		0.1 f/cc	na
Butadiene	1051	1996	1000 ppm	1 ppm	1000
Methylene Chloride	1052	1998	500 ppm	25 ppm	20
Chromium (VI)	1026	2006	52 µg/M^3 c	5 µg/M^3	10.4**

* The four PEL's set for asbestos eventually mandated a 120-fold reduction from pre-OSHA PEL
** Pre-existing PEL was a ceiling limit in units of a different chemical form; actual permitted exposure under the new PEL could be higher than previous.