

**UNITED STATES COURT OF APPEALS
FOR THE THIRD CIRCUIT**

No.

**PUBLIC CITIZEN HEALTH RESEARCH GROUP, and
PAPER, ALLIED-INDUSTRIAL, CHEMICAL &
ENERGY INTERNATIONAL UNION,**

Petitioners,

v.

**ELAINE CHAO, SECRETARY OF LABOR, and
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION,**

Respondents.

DECLARATION OF PETER LURIE, M.D., M.P.H.

Peter Lurie, M.D., M.P.H., declares as follows:

1. I am the Deputy Director of Public Citizen Health Research Group (“HRG”), which was founded in 1971 by Ralph Nader and Dr. Sidney Wolfe. HRG is a part of Public Citizen, Inc., a non-profit membership organization with approximately 150,000 members nationwide. Public Citizen is devoted to protecting the rights of consumers, workers, citizens and other U.S. residents. HRG promotes that goal by, among other things, seeking to ensure that

government regulations protect members of the public from exposure to hazardous materials in their homes, workplaces, and communities.

2. I have worked as a researcher and advocate in the field of public health since 1984. I received my M.D. from the Albert Einstein College of Medicine in 1987 and an M.P.H. in epidemiology from the University of California at Berkeley in 1991. I held research and clinical fellowships at the University of California at San Francisco from 1990 to 1993, and was an assistant professor at UCSF in the Department of Epidemiology and Biostatistics and the Department of Family and Community Medicine from 1993 to 1998. From 1997 to 1999 I was a visiting assistant research scientist at the University of Michigan. I was employed by HRG as a medical researcher from 1984 to 1985 and as a research associate from 1993 to 1998. I became Deputy Director of HRG in 1999. My areas of expertise include HIV prevention and epidemiology, pharmaceutical policy, occupational health policy, and tobacco policy.

3. This declaration is submitted in support of the Petition filed in this Court by petitioners HRG and the Paper, Allied-Industrial, Chemical & Energy International Union to compel the respondents, Secretary of Labor Elaine Chao and the Occupational Safety and Health Administration (OSHA), to cease their unreasonable delay in issuing a notice of proposed rulemaking to alter OSHA's permissible exposure limit, or PEL, for the carcinogenic substance hexavalent

chromium. Hexavalent chromium, also referred to as “Cr(VI),” is an oxidation or “valence” state of the metallic element chromium (Cr). Hexavalent chromium is found in a number of chemical compounds, including chromic acid (CrO₃) and the family of compounds referred to as “chromates.” Although hexavalent chromium compounds are not commonly found in nature, they are widely produced and used in industry. Hexavalent chromium is used in chrome plating, stainless steel welding, ferrochromium alloy production, wood preservation, chromate pigments and dyes, rust and corrosion inhibitors, drilling muds, textiles, batteries, candles, rubber, cement, and copier toner. OSHA estimates that approximately one million U.S. workers are regularly exposed to hexavalent chromium in the workplace. 66 Fed. Reg. 61880 (Dec. 3, 2001) (Exhibit 4-P attached hereto).

4. Exposure to airborne hexavalent chromium causes a variety of acute health effects, including irritation, ulceration, perforation, and necrosis of the nasal septum, asthma, dermatitis, and skin ulceration. Inhalation of hexavalent chromium is also a cause of lung cancer. Epidemiological studies dating back over fifty years, as well as animal studies, have demonstrated a relationship between exposure to hexavalent chromium and lung cancer. Since 1990, chromium has been designated a human carcinogen by the International Agency for Research on Cancer, an agency of the World Health Organization. *See* <http://193.51.164.11/monoeval/crthall.html>. The Environmental Protection

Agency has classified hexavalent chromium as a human carcinogen since 1984, and confirmed that classification in a major review of the toxicological data in 1998. Environmental Protection Agency, *Toxicological Review of Hexavalent Chromium* (1998) (available at <http://www.epa.gov/IRIS/toxreviews/0144-tr.pdf>).

The National Toxicology Program of the Department of Health and Human Services has designated the hexavalent chromium compounds calcium chromate, chromium trioxide (chromic acid), lead chromate, strontium chromate, and zinc chromate as “known human carcinogens” in each of its biannual Reports on Carcinogens since 1980. *See, e.g.*, National Toxicology Program, *Ninth Report on Carcinogens* (2000) (relevant portions available at

http://ehis.niehs.nih.gov/roc/ninth/known/chromium_hex_comps.pdf). The

Agency for Toxic Substances and Disease Registry (ATSDR), another component of HHS, has designated hexavalent chromium as one of its “Top 20 Hazardous Substances.” *See* <http://www.atsdr.cdc.gov/cxcx3.html>. ATSDR concluded in September 2000 that “[t]he available human and animal data are sufficient for determining that chromium is carcinogenic following inhalation exposure.”

ATSDR, *Toxicological Profile for Chromium 246* (2000) (available at <http://www.atsdr.cdc.gov/toxprofiles/tp7.pdf>).

5. In 1971, shortly after it was created by Congress, OSHA established a PEL for occupational exposures to airborne hexavalent chromium compounds,

acting under the “national consensus standards” provision of the Occupational Safety and Health Act. 29 U.S.C. § 655(a). The consensus standard PEL, which remains in force today, is 1 milligram per 10 cubic meters, or, as it is more commonly expressed, 100 micrograms per cubic meter ($100 \mu\text{g}/\text{m}^3$). 29 C.F.R. § 1910.1000, Table Z-2 (standard for general industry); 29 C.F.R. § 1926.55, Appendix A (standard for construction industry). The relevant regulations refer to hexavalent chromium as “chromic acid and chromates.” The $100 \mu\text{g}$ standard is reported as micrograms of chromic acid (CrO_3) rather than of hexavalent chromium itself. Since 52% of the mass of a molecule of CrO_3 is attributable to the chromium atom, the $100 \mu\text{g}/\text{m}^3$ standard reported as CrO_3 is equivalent to a standard of $52 \mu\text{g}/\text{m}^3$ of hexavalent chromium (or Cr(VI)). The hexavalent chromium PEL for general industry is a “ceiling” standard, meaning that the level of hexavalent chromium may not exceed the standard at any given point in time, even if the average level over a longer period of time is lower. *See* 29 C.F.R. § 1910.1000, Table Z-2. By contrast, the PEL for the construction industry is measured as an 8-hour time-weighted average (“TWA”), meaning that the level at any given time may exceed $100 \mu\text{g}/\text{m}^3$ as long as the average concentration spread over an 8-hour shift is below that level. 29 C.F.R. § 1926.55, Appendix A. The construction industry standard is thus less rigorous than the standard for general industry. An OSHA interpretive memorandum dated February 14, 1991, confirms

that the general industry standard is to be enforced as a ceiling, not an 8-hour TWA. *See* Exhibit 1.

6. According to the 1991 OSHA interpretive memorandum, the consensus standard PEL was based on a decades-old standard promulgated by the American National Standards Institute – a standard that did not consider the cancer risks of exposure to hexavalent chromium:

The current OSHA PEL for these compounds was adopted from a 1943 ANSI Standard. The justification for the ANSI Standard is based on 1924 and 1928 reports on the non-malignant effects (dermatitis and skin ulceration and perforations of the nasal septum) of chromium compounds. Thus, our current PEL is based on observations reported more than 60 years ago. It has now been established by the International Agency for Research on Cancer (IARC) that Chromium VI compounds are carcinogenic to humans.

Exhibit 1.

7. Because the 100 $\mu\text{g}/\text{m}^3$ standard does not provide protection against risks of cancer resulting from exposure to hexavalent chromium, the National Institute for Occupational Safety and Health (NIOSH), the arm of the Centers for Disease Control and Prevention responsible for conducting research and making recommendations for the prevention of work-related disease and injury, recommended to OSHA in 1975 that the PEL be lowered to 1 $\mu\text{g}/\text{m}^3$ (reported as Cr(VI)) as an 8-hour TWA for those hexavalent chromium compounds that NIOSH concluded were carcinogenic. *See* NIOSH, *Criteria for a Recommended Standard: Occupational Exposure to Chromium(VI)* (1975) (available at

<http://www.cdc.gov/niosh/76-129.htm>. The NIOSH standard equates to approximately $2 \mu\text{g}/\text{m}^3$ reported as CrO_3 . Subsequently, NIOSH concluded that its proposed limit should apply to all hexavalent compounds, because all such compounds should be considered carcinogenic. NIOSH, *Pocket Guide to Chemical Hazards*, Appendix C (relevant pages available at <http://www.cdc.gov/niosh/ipcs/nengapdx.html#c>).

8. In July 1993, Public Citizen and the Oil, Chemical & Atomic Workers Union (now PACE International Union) petitioned the Secretary of Labor to commence a rulemaking to lower the PEL for hexavalent chromium to $.5 \mu\text{g}/\text{m}^3$ (as CrO_3) measured as an 8-hour TWA. The petitioners also sought promulgation of an emergency temporary standard of $.5 \mu\text{g}/\text{m}^3$. A true and correct copy of the petition is attached as Exhibit 2.

9. OSHA took approximately seven months to respond to the petition. On March 8, 1994, Joseph Dear, Assistant Secretary of Labor for Occupational Safety and Health, sent Public Citizen a letter stating that OSHA had determined not to issue an emergency temporary standard, but had decided to commence a rulemaking proceeding to establish a new PEL for hexavalent chromium. The letter stated that “OSHA agrees that there is clear evidence that exposure to CrVI at the current PEL of $100 \mu\text{g}/\text{m}^3$ can result in an excess risk of lung cancer and other CrVI-related illnesses.” According to the letter, OSHA “anticipate[d] that [a]

Notice of Proposed Rulemaking will be published in the Federal Register not later than March 1995.” A true and correct copy of the letter is attached as Exhibit 3.

10. In April 1994, the Department of Labor published its semiannual regulatory agenda. Among the OSHA proceedings listed in the agenda was a rulemaking proceeding for occupational exposure to hexavalent chromium. The April 1994 agenda stated that the anticipated schedule for issuing a notice of proposed rulemaking for hexavalent chromium was May 1995. A true and correct copy of the entry for hexavalent chromium in the April 1994 regulatory agenda is attached as Exhibit 4-A. Copies of each subsequent regulatory agenda entry for hexavalent chromium from November 1994 through December 2001 are attached as Exhibits 4-B through 4-P. As these documents demonstrate, OSHA’s May 1995 agenda moved the target date for issuance of a notice of proposed rulemaking back to December 1995 (Exhibit 4-C); the November 1995 agenda pushed the date back to July 1996 (Exhibit 4-D); the May 1996 agenda changed the target date to June 1997 (Exhibit 4-E); the November 1996 agenda changed the target to September 1997 (Exhibit 4-F); the April 1997 agenda changed the target to September 1998 (Exhibit 4-G); the October 1997 agenda changed the target to September 1999 (Exhibit 4-H); the November 1999 agenda changed the target to June 2001 (Exhibit 4-L); the November 2000 agenda changed the target to September 2001 (Exhibit 4-N); and the May 2001 agenda changed the target to November 2001

(Exhibit 4-0). In the December 2001 agenda, the hexavalent chromium rulemaking is listed as a “long-term action,” and the anticipated date for issuance of a notice of proposed rulemaking is “to be determined.” Exhibit 4-P.

11. As part of its consideration of the issue of hexavalent chromium, OSHA contracted with the K.S. Crump Division of ICF Kaiser to perform a comprehensive risk assessment for hexavalent chromium based on existing epidemiological studies. In May 1995, Crump published its *Evaluation of Epidemiological Data and Risk Assessment for Hexavalent Chromium* (the “Crump Report”), a true and accurate copy of which is attached as Exhibit 5. The Crump Report’s conclusions were based principally on what were at that time “the best of the available quantitative epidemiological data” (Report at 2) on the effects of airborne exposure to hexavalent chromium, the Mancuso (1975) and Hayes (1979) studies of lung cancer among workers at chromium production facilities in Ohio and Baltimore, respectively. The Crump Report concluded that these data provided a basis for deriving “relatively consistent” risk estimates (Report at 2). The Crump Report used the Mancuso and Hayes data to develop estimates of the numbers of excess cancer deaths that could be expected to result from exposure to particular levels of hexavalent chromium, and concluded that exposure at the current PEL over an average working lifetime of 45 years (the conventional standard for risk assessment for industrial exposures) could be expected to result in

between 88 and 342 excess cancer deaths per thousand workers. Crump Report at 67 (Table 8). In other words, up to 34% of workers so exposed would unnecessarily die of lung cancer. Moreover, the Crump Report concluded that significant numbers of excess cancer deaths could be expected even at much lower exposure levels. Exposure at levels as low as the NIOSH-recommended $2 \mu\text{g}/\text{m}^3$ (as CrO_3), the Report concluded, could be expected to result in between 1.8 and 8.9 excess cancer deaths per thousand workers. Crump Report, 67 (Table 8).

OSHA endorsed the Crump analysis in its November 1996 regulatory agenda entry for hexavalent chromium (Exhibit 4-F). The agenda entry stated that “OSHA acknowledges that the risks of serious adverse health affects at the current PEL are significant.” Indeed, OSHA went so far as to say that “[t]here appears to be no dispute that the current PEL is too high” (emphasis added). The agency’s estimate of the number of workers affected by hexavalent chromium underscored its assessment of the significance of the issue: “OSHA estimates that more than 1 million workers are exposed to hexavalent chromium on a regular basis in all industries.” The agency went on to summarize and quantify the health effects of exposure to hexavalent chromium at the current PEL:

Exposure to chromium (VI) is known to cause lung cancer, bronchial asthma, nasal septum perforations, skin ulcers, and irritative dermatitis. Chromium (VI) causes ulcers of the skin and acute irritative dermatitis among workers exposed to chromium alloys and chromium-plated objects. Inhalation of chromium (VI) aerosols at levels of about $100 \mu\text{g}/\text{m}^3$ may give rise to necrosis in the nasal

septum, leading to perforation. Bronchial asthma may occur as a result of inhalation of low levels of chromium (VI) dust or fumes.

* * *

OSHA has performed a preliminary quantitative risk assessment using all epidemiological studies for which dose-response information was available. OSHA preliminarily estimates that the risk of excess lung cancer deaths over a working lifetime at the current PEL ranges from 88 to 342 excess lung cancer deaths per thousand exposed workers.

13. The 1996 agenda went on to state that OSHA's assessment of the scientific evidence had led it to conclude that a new PEL was essential: "The strength of the epidemiological data leads OSHA to conclude that occupational exposures to chromium (VI) must be reduced." (Exhibit 4-F.) Moreover, the agency asserted, "[a]ny new PEL for chromium (VI) *must be greatly reduced*" (emphasis added). Accordingly, OSHA indicated that it was considering a new standard: "OSHA is preliminarily considering a new TWA PEL in the range of 0.5 - 5.0 $\mu\text{g}/\text{m}^3$, measured and reported as chromium (VI)." Because the existing standard equates to 52 $\mu\text{g}/\text{m}^3$ reported as Cr(VI), a new PEL in the range of .5 to 5 $\mu\text{g}/\text{m}^3$ reported as Cr(VI) would represent a decrease by a factor of approximately 100 at the low end and approximately 10 at the high end of the range. Even at these greatly reduced levels, the agency acknowledged, there would be a significant excess of cancer deaths. "OSHA preliminarily estimates that the risk of excess lung cancer deaths over a working lifetime at a new PEL of 0.5 micrograms per cubic meter of air [as CrVI] ranges from 0.9 to 4.4 excess lung cancer deaths

per thousand exposed workers.” The much higher risks associated with the existing PEL, the agency stated in 1996, were more than sufficient to justify a new standard:

OSHA is of the opinion that the epidemiological data on cancer mortality associated with chromium (VI) exposures are sufficient for the Agency to proceed with reduction of chromium (VI) exposures through regulation. The evidence of material impairment from exposure to chromium (VI) is strong and of high quality. *There appears to be no dispute that the current PEL is too high, and the sooner the PELs are reduced, the sooner the risk of death from lung cancer due to occupational chromium (VI) exposure will be reduced.* In addition, the number of cases of asthma, dermatitis, nasal septum perforation, and skin ulceration due to chromium (VI) will also be reduced. The risk estimates for chromium (VI) are similar to risk estimates from exposures to other substances that have been regulated through the Section 6(b) rulemaking process. (Emphasis added).

14. Despite the strength of the existing data, OSHA was under pressure from industry to defer rulemaking until a new study, being performed by a team of Johns Hopkins and EPA researchers led by Dr. Peter S.J. Lees, was published. In a series of letters, industry groups explicitly requested OSHA to postpone any rulemaking until the results of the study were available. As one of the letters (a true and correct copy of which is attached hereto as Exhibit 6) stated, the study was “expected to be the most accurate and complete database on chromium exposure and mortality available.”

15. OSHA responded to these requests by stating that it would not formally postpone the rulemaking. True and correct copies of OSHA’s responses

to the industry requests are attached hereto as Exhibits 7 to 9. However, OSHA also told petitioners in a letter dated June 30, 1995 (a true and correct copy of which is attached hereto as Exhibit 10), that it intended “to include the results of the Johns Hopkins study” in the notice of proposed rulemaking, thereby effectively acknowledging that the rulemaking would not be initiated until after the study was released.

16. The results of the Johns Hopkins study were publicly disclosed in conference presentations in 1995, 1996, 1997, and twice in 1999. OSHA did not, however, obtain the underlying data, and, according to agency personnel, still has not received it.

17. On March 3, 1997, petitioners wrote a letter to OSHA requesting that it commit to a timetable for the hexavalent chromium rulemaking. (Exhibit 11 hereto.) OSHA responded in a letter dated August 4, 1997. (Exhibit 12 hereto.) OSHA’s letter denied the petitioners’ request that it commit to a timetable for issuance of a new PEL. The letter attributed OSHA’s failure to promulgate a proposed rule on hexavalent chromium to limited agency resources (resulting from funding cutbacks and from the then-recent government shutdowns) and competing high priority projects that were nearing completion or had been recently completed. The higher priority tasks referred to in the letter were revision of the respirator standard (which was completed in 1998), issuance of a notice of

proposed rulemaking on occupational exposure to tuberculosis (issued in 1997), finalization of exposure standards for 1,3-butadiene and methylene chloride (completed in 1996 and 1997, respectively), and the development of a Safety and Health Program Standard (which has since been shelved). The letter stated, however, that “[a]s we complete these other high-priority projects, we are committed to refocusing Agency resources onto chromium (VI) and other high-priority projects.” The Agency further stated that while it had “no intention of unduly delaying the rulemaking process” pending completion of the Johns Hopkins study, it expected that the results of the study would be available in time to be considered in the rulemaking process. The letter concluded:

Consequently, OSHA intends to move ahead as quickly as we can on the chromium (VI) rulemaking. We regret that OSHA is not further along in the process, but assure you that the Agency is fully committed to completing this rulemaking as expeditiously as the Agency’s resources permit. We do appreciate your concerns and look forward to working with you as we proceed.

18. Petitioners filed a petition for review in this Court on October 13, 1997. In OSHA’s response to that petition for review, the agency stated that it intended to issue a notice of proposed rulemaking by September 1999, but added that “that date reflects circumstances as OSHA knows them to date and it is a virtual certainty that unanticipated intervening events will affect OSHA’s workload in the interval between now and then.” Sec. Labor’s Answer, No. 97-3522, at 10. OSHA also informed the Court that its work on the hexavalent chromium standard

had a lower priority than its plan to promulgate the assertedly more important “Safety and Health Program standard.” Moreover, OSHA stated that its work on hexavalent chromium would be slowed by the need to consider feasibility of a lower standard, by the need to comply with the Small Business Regulatory Enforcement Fairness Act (“SBREFA”), 5 U.S.C. § 609, and by budget constraints. *See* Sec. Labor’s Answer at 17-18, 20, 24-25. On March 13, 1998, this Court issued its opinion denying the petition. *Oil, Chemical & Atomic Workers Union v. OSHA*, 145 F.3d 120, 122 (3d Cir. 1998).

19. A study published in 1999 used measures of the potency of carcinogens and the weight of the evidence supporting their carcinogenicity to identify chemicals for which a reduction in the PEL was indicated. Hexavalent chromium emerged as the regulatory candidate for which there was the greatest disjunction between the existing evidence and the PEL. The authors stated that “[w]e believe that few doubt that OSHA’s current chromium PEL is too high” J.S. Smith & J.M. Mendeloff, *A Quantitative Analysis of Factors Affecting PELs and TLVs for Carcinogens*, 19 Risk Analysis 1223, 1232 (1999) (attached hereto as Exhibit 13).

19. The Johns Hopkins study on lung cancer among chromium production workers was published in August 2000. Herman J. Gibb, Peter S.J. Lees, Paul F. Pinsky, Brian C. Rooney, *Lung Cancer Among Workers in Chromium Chemical*

Production, 38 Am. J. Industrial Medicine 115 (2000) (attached hereto as Exhibit 14). The study followed an expanded cohort of workers at the same Baltimore chromate production plant previously studied by Hayes. Detailed exposure estimates for the employees in the study were based on roughly 70,000 contemporaneous measurements of airborne hexavalent chromium concentration at the plant, and information on the smoking status of the workers was gleaned from company medical records. The vital status of the workers, including dates and causes of death, was determined from 1950 through December 1992. *See id.* at 117.

20. The authors of the Johns Hopkins study concluded that their study population “present[ed] the best opportunity to date of evaluating the lung cancer exposure-response relationship from exposure to hexavalent chromium.” *Id.* at 124. In comparison to previous studies, such as Mancuso’s – which had been the most comprehensive up to that time – the Johns Hopkins study

had a larger cohort, more lung cancer deaths, and had smoking information for most of the cohort. Many of the exposure estimates of the current study are from direct measurements; a portion were from models using contemporary data. More important, however, the ambient measures or estimates of exposure were concurrent with the work history and are of hexavalent chromium directly, not derived from other measures. Furthermore, the cumulative exposure groups in the current study represent lower exposures than those of the Mancuso study, providing better risk estimates at these lower levels of exposure, an important consideration for quantitative risk assessment.

Id.

21. The Johns Hopkins study unequivocally concluded: “The current study confirms the elevated lung cancer risk from hexavalent chromium exposure observed in other studies” *Id.* Even more significantly, the authors of the study found that the existing PEL for hexavalent chromium fell within the fourth (or highest) exposure quartile of their studied population. In this quartile, exposure was found to be associated with a “significantly elevated” ratio of observed-to-expected lung cancer deaths. The authors concluded that there would be 2.24 times the number of cancer deaths among chromium-exposed workers than in an otherwise similar unexposed population. *Id.* at 122, 125. Indeed, even exposures at the NIOSH recommended level of $2 \mu\text{g}/\text{m}^3$ (reported as CrO_3) or at the lower level of $.5 \mu\text{g}/\text{m}^3$ (reported as CrO_3) advocated by the petitioners in this case were found to fall within the study’s third exposure quartile, which also had a significantly elevated rate of lung cancer, with a ratio of observed-to-expected cancer deaths of 1.57. *Id.* at 122, 125. The Johns Hopkins study thus provides strong confirmation that the existing PEL for hexavalent chromium poses an unacceptable cancer risk to workers, and that even much lower levels pose significant risks.

22. Simultaneously with the publication of their cancer study, the Johns Hopkins researchers published a study on other health effects of hexavalent chromium exposure. Herman J. Gibb, Peter S.J. Lees, Paul F. Pinsky, Brian C.

Rooney, *Clinical Findings of Irritation Among Chromium Chemical Workers*, 38 Am. J. Industrial Medicine 127 (2000) (attached hereto as Exhibit 15). That study found that workers exposed to hexavalent chromium experienced symptoms such as nasal septum deterioration and skin ulceration at median levels of approximately $20 \mu\text{g}/\text{m}^3$ – well below the current exposure standard. Because $20 \mu\text{g}/\text{m}^3$ was the median exposure level associated with these symptoms for those who experienced them, it follows that as many workers who experienced such symptoms did so *below* that level as above it.

23. Some time before the publication of the two Johns Hopkins studies, petitioner HRG obtained a copy of them through the Freedom of Information Act. On July 11, 2000, HRG sent a letter to Assistant Secretary of Labor for Occupational Safety and Health Charles Jeffress, which summarized the results of the studies, the delays in their publication, and the delays in OSHA's consideration of the hexavalent chromium issue. (Exhibit 16.) The letter stated:

The study demonstrates that lung cancer death rates [in the studied population] were almost double what would otherwise have been expected for this group and may even be elevated at air chromium levels below those we have recommended as a new standard With these data finally in hand, there can be no further justification for failing to immediately promulgate regulations to reduce worker exposures to this hazardous chemical.

OSHA did not answer the letter.

24. OSHA's "regulatory plans" issued in December 2000 and December 2001 are attached as Exhibits 17 and 18. Pertinent portions of OSHA's regulatory agenda issued in December 2001 are attached as Exhibit 19. These Exhibits demonstrate that none of the matters that OSHA previously stated to have a higher priority than the hexavalent chromium rulemaking remains an agency priority today. OSHA's current "priorities," as set forth in its latest regulatory plan, are limited to: (1) "improving" language in existing standards; (2) "clarifying" the recently promulgated rule on using respirators in the workplace; (3) promulgating a negotiated rule updating fire prevention standards in shipyards; (4) revising an existing rule on highway signs to bring it into conformity with Department of Transportation rules; and (5) adopting clearer language in an existing rule on emergency exit routes in workplaces.

25. In an effort to provide information concerning the degree of current worker exposures to hexavalent chromium, I obtained a copy of OSHA's database of exposure measurements under the Freedom of Information Act. The database includes workplace exposure measurements for hexavalent chromium taken between 1990 and 2000. I performed a statistical analysis of the data on those measurements, and prepared a report suitable for publication in a medical journal stating my conclusions, a true and correct copy of which is attached as Exhibit 20.

The statements in the report are truthful and reflect a proper application of generally accepted statistical methods.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on February __, 2002.

Peter Lurie, M.D., M.P.H.