

November 21, 2001

US Senator Hillary Rodham Clinton (D-NY)
Washington, DC

US Senator Harry Reid (D-NV)
Washington, DC

US Congressman George Miller (D-CA)
Washington, DC

US Congressman Major Owens (D-NY)
Washington, DC

Re: Protecting Cleanup Workers, Lessons Learned from *Exxon Valdez*

Dear Senators Clinton and Reid, Congressmen Miller and Owens;

In early November 2001, Maria Cuprill from the Education and Labor Workforce Committee called to inquire whether we had learned any lessons from the *Exxon Valdez* Oil Spill (EVOS) cleanup in terms of protecting worker health that might be applicable to the NY cleanup. She noted that NY workers were starting to experience symptoms very similar to those described in the *Los Angeles Times* story (11/5/01) by Kim Murphy on long-term illnesses of EVOS cleanup workers.

While we are sorry to hear more workers are suffering, we do think, based on our experiences, we might be able to provide some guidance for minimizing long-term health problems in NY cleanup workers.

Worker Safety Program

(Note: this is NOT what Exxon did, but rather what we learned Exxon SHOULD have done based on testimony of expert witness Dr. Daniel Teitelbaum, Medical Toxicology Partnership, Denver, CO, 303-355-2625.)

Response to mass disasters should begin with a person who is responsible. This person should be an OP (occupational physician), not emergency room physicians, as in the EVOS cleanup. ER physicians are not trained to properly identify and treat occupational illnesses. Under the OP, there should be teams of doctors and nurses for every 2,500 people. These "field teams" should have an OP, an IH (industrial hygienist), and two nurses.

Every shift of workers should have their own team of professionals so that whenever workers are working such as night shifts, teams of care givers are present and actively monitoring the work environment.

Field teams should be monitoring for every suspected health hazard. If problems arise, such as an epidemic of upper respiratory infections (URIs) as in the case of the

EVOS cleanup—and, it sounds like, the NY cleanup, the field teams should work with the lead OP to identify the source of the outbreak from the monitoring data and then design and test ways to stop the epidemic. This preventative loop is critical to the overall success of the worker safety program and something, unfortunately, that was missing during the EVOS cleanup.

For example, is the problem physical, biological, or chemical? Or a combination? Are the URIs or illnesses being properly diagnosed? Exxon tried to blame 6,722 cases of URIs (which were never reported) on a viral outbreak when only 2 active cases of virus were reported. Would respirators help prevent URIs if the problem is chemical? Are respirators being properly fitted? Are the workers wearing them? The IH people should be able to design a program that is responsive to the problem and to the work environment; i.e., it doesn't do any good to require respirators if no one bothers to wear them.

Supervisors and workers should be trained to identify symptoms of both short- and long-term health problems that might arise from chemicals including oil and oil derivatives to which they might be exposed. This type of training is usually only done for hazardous waste cleanups, but do you know there are no hazardous chemicals in the NY wreckage? Can you afford not to adopt a precautionary approach?

One big problem during the EVOS cleanup, for example, was that neither workers nor supervisors were trained to recognize that simple headaches, sore throats, bronchitis, sinus congestion, coughing, and other flu-like symptoms might not be simple colds or flu. Rather, these symptoms might be early warning signs of chemical poisoning or overexposure. Treating such symptoms with Ibuprofen, as many EVOS cleanup workers were, would, of course, be totally ineffective. Not properly treating these symptoms, not remedying the situation that led to them, and further exposing the workers to dangerous conditions could very possibly lead to long-term health problems, as we are finding out.

A proper worker safety program is like a vertical ladder of reporting with the workers at the bottom, various supervisors next, then the field teams, and finally the OP director. People at each rung have to be fully cognizant of the occupational hazards and health symptoms in order for the program to work effectively.

Workers should be pre-hire health screening to see if they are fit for the particular job or to be given jobs they can handle. They should be checked for pre-existing conditions. For example, asthma could be exacerbated by breathing fine particulate matter and could lead to serious health problems.

The IH people should also provide formal work assessments of the physical and chemical stresses to which workers are exposed. There should be job descriptions.

The long shifts also pose problems. Disruption of natural circadian rhythms alters one's capacity to deal with infections, take medication such as pulmonary dilator drugs, and can lead to shift work syndrome or dyssynchronicity. Shift work is one of the most dangerous and disruptive things you can possibly do and is calculated to make people sick.

Monitoring Pitfalls

A monitoring program is essential for determining the levels of chemicals in the work environment. However, design of this program is also critical. In the EVOS cleanup, according to Dr. Teitelbaum, there was no attempt to collect samples in a methodical way that would allow one to determine, for example, how much oil mist workers were exposed to. There was no evidence that Exxon followed the NIOSH sampling manual. The number of samples means very little. A rigorously planned and carefully followed statistical design is important.

It's important to have the monitoring data in a timely manner so the OP and IH people can use it to determine what is making workers sick. If there's a lot of samples, as in the case of the EVOS cleanup, there might be several labs involved in analyzing the data. If so, then there must be a good inter laboratory quality assurance and quality control program otherwise the cable that essentially ties all the data sets together will be missing and the data could be meaningless as in the case of the EVOS cleanup.

You should be aware that federal standards for personal exposure limits or PELs for various compounds of concern should be adjusted downward (i.e., more protective) for shift workers, because of the longer hours. This was not done in the EVOS cleanup.

PELs are sometimes adjusted downward as more information is gathered about a specific compound's toxicity. There is a 2-year grace period before new limits are set to allow industry to adjust. If any of the compounds of concern in the NY cleanup are in such a grace period, you should consider requiring the contractors to meet the new standard ahead of schedule to protect the workers. This would not be an undue burden as many companies voluntarily choose to use lower standards to protect workers. For example, IBM uses 10% of the OSHA PEL for in-plant use; Amoco has a company policy of 25% of the OSHA PEL.

Unfortunately, in the EVOS cleanup, Exxon did not adjust the PEL for oil mist for shift work and overexposed workers to an average of 12-times the OSHA standard, and up to 400 times the standard, according to some estimates. To make matters worse, at the time the OSHA standard was based on mineral oil, not the toxic and carcinogenic crude oil. Further, the standard for benzene, a carcinogenic component of crude oil, was in the two-year grace period. The standard dropped from 10 parts per million to 1 part per million five days before the 1989 cleanup ended.

PELs are based on single compounds, not compounds in combination. Health effects of even low exposures to combinations of compounds are largely unknown. Further, compounds could absorb onto tiny particles of dust and be carried into people's lungs as an unanticipated exposure route. In the EVOS cleanup, oil was thought not to be a problem, but the high pressure, hot water wash aerosolized the oil so it became particulates, which were inhaled. This may be largely responsible for the respiratory problems and other health problems we are witnessing 12 years later.

Finally, be mindful of solvents! Solvents are one of the primary compounds associated with chemical sensitivity, a debilitating disease with long-term health consequences, yet these substances are often used to clean skin, clothing, and

equipment with little thought given to their health effects. In the EVOS cleanup, no one even thought to monitor workers for solvent exposure, a gross oversight.

Clinical Data

There is no mechanism for centralized public reporting of medical records of injured workers. This makes it difficult if not impossible for workers to be monitored over time and given proper care and treatment in the event of long-term health problems. It also essentially prohibits public or private researchers from accessing these data sets for purposes of advancing our understanding of effects, symptoms, and treatment of chemical exposure.

OSHA and Government Oversight in General

Our experience with OSHA during the EVOS cleanup was not good. First, the federal agency waived the 40-hour training required of hazardous waste cleanup workers and instead approved a 4-hour training program. OSHA representatives sat in on and approved the 4-hour class as well. Videos of the class, reviewed by Dr. Teitelbaum and ourselves, show glaring deficiencies, some in direct violation of the Hazardous Communication Standard. For example, workers were not given Material Safety Data Sheets for all the chemicals they would encounter. In the video, workers were told to read the labels of any products they were uncertain how to handle! The workers were not informed of the short and long-term health risks and symptoms of working with these chemicals and products.

Then, when OSHA visited and took limited air quality samples, they used outdated Drager tubes, which Dr. Teitelbaum found “absolutely appalling.” Further, OSHA used equipment designed to pick up volatile hydrocarbons but not particulate mist where one would expect to find the compounds of concern, the PAHs or polycyclic aromatic hydrocarbons.

OSHA and the International Union of Laborers had designed an independent monitoring program, but Exxon refused to grant them access to the remote beaches and workers. Instead of insisting, OSHA backed off and only took very limited samples, which in no way could have been considered a monitoring program.

After the 1989 cleanup, OSHA requested Exxon’s monitoring data and clinical records so at least the oversight agency could do an independent analysis of these data sets. Exxon refused to turn over its data and OSHA folded. The agency never used its subpoena power to obtain these critical records.

Instead, OSHA (and the State of Alaska) relied on the selective data released by Exxon. Not surprisingly, OSHA (and the State of Alaska) agreed with Exxon’s interpretation that the respiratory problems were just colds and flu.

Exxon never reported 6,722 cases of URIs in direct violation of federal law (33 USCS § 930). By failing to report, Exxon managed to avoid penalties of up to \$10,000 per

unreported case – and, significantly, Exxon avoided triggering a Health Hazard Evaluation with potential consequences of long-term monitoring for injured workers.

Proposed Immediate Action

Based on our experience, we recommend the following course of action to resolve EVOS cleanup issues and to minimize long-term health problems in the NY cleanup and future mass disasters.

- 1) The confidentiality order in the personal injury lawsuit Garry Stubblefield v Exxon Shipping, Veco, and Norcon (A89-095), filed in Superior Court, Third Judicial District, State of Alaska should be lifted as a matter of urgent public interest. The documents held in secret may shed light on issues relevant to the NY cleanup. (Dr. Teitelbaum's deposition, referenced in much of this letter, is part of this case.)
- 2) OSHA should contract a team of independent epidemiologists and physicians to review clinical and monitoring data from the EVOS cleanup and conduct long-term monitoring of injured workers. OSHA should subpoena Veco's employee records, Veco's clinical records, and Exxon's monitoring data so that all the cleanup workers can be contacted (OSHA should have done this in 1989). Exxon should be required to pay for a long-term monitoring study, but indirectly, through OSHA so Exxon has no control over the study design, results, or conclusions.
- 3) Congress should consider holding an oversight hearing of OSHA's performance and handling of the EVOS cleanup and other mass disasters to determine how to improve federal oversight in this area. At a minimum, federal oversight should be mandated for hazardous waste cleanups, and the spiller should be required to provide all monitoring data and clinical records to the oversight agency.
- 4) Industries that routinely handle materials that, once spilled, are governed by hazardous waste cleanup laws, including crude oil, should be required to stockpile respirators, gloves, and other protective clothing in strategically located warehouses. Mobilization of thousands of workers to respond to accidental cleanups leaves zero lead time for manufacture of gear critical for protecting cleanup workers.

Thank you for your concern. If we can be of any further assistance in this matter, please contact us.

Sincerely,

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cc: Senators and Congressmen from NY
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