

## Department of Toxic Substances Control



Winston H. Hickox  
Agency Secretary  
California Environmental  
Protection Agency

Edwin F. Lowry, Director  
1001 I Street, 25th Floor  
P.O. Box 806  
Sacramento, California 95812-0806

Gray Davis  
Governor

December 28, 2000

Mr. Daniel Hirsch, President  
Mr. Bill Magavern, Sacramento Director  
Committee to Bridge the Gap  
446 T Street  
Sacramento, CA 95814

Dear Mr. Hirsch and Mr. Magavern:

Thank you for your recent letter to Governor Davis expressing concerns about wildfire-related risks around chemically and radiologically contaminated sites in California. Your letter has been forwarded to me for a response specifically regarding sites where the Department of Toxic Substances Control (DTSC) has the lead for cleanup. Issues raised in your letter having statewide implications and the need for legislative action will be referred to Secretary Winston Hickox of the California Environmental Protection Agency for a more global examination.

In your letter, you cite concerns about potential releases of toxic contaminants into communities resulting from wildfires at contaminated sites (Vandenberg Air Force Base, Aerojet Chino Hills, and Santa Susana Field Laboratory (SSFL) were cited as examples). With respect to these sites as well as all other DTSC lead sites, DTSC takes its role of protecting public health and the environment seriously and is proactive in coordination with responding agencies during emergencies. In the past, we have provided contact names, chemical information, and technical expertise to agency personnel during activities around sites with chemical releases and are always striving to improve lines of communication and provide useful information. DTSC will continue to review and update communication efforts and information sharing with local emergency response agencies such as fire departments, as we do periodically.

Mr. Daniel Hirsch, President  
Mr. Bill Magavern, Sacramento Director  
December 28, 2000  
Page 2

DTSC does not dismiss the possibility of wildfires since, as you pointed out, they have occurred in the past. I regret that the message you heard was that these events are too remote to be considered. This is not current policy. In fact, during the United States Environmental Protection Agency (US/EPA) community workgroup meeting which occurred shortly after the meeting you referenced, DTSC personnel responded that data on the chemical uptake in plants was being collected as part of the Ecological Risk Assessment, in direct response to your concern about release of chemicals from plants during wildfires. All this information will be used in order to make a risk management decision which is protective of human health and the environment. In addition, at the same US/EPA community workgroup meeting, DTSC also briefly outlined the fire abatement policies in place at the SSFL intended to prevent wildfires.

As you know, fires by their very nature generate hazardous chemicals. One well-known example is that of carcinogenic polycyclic aromatic hydrocarbons (PAHs) that are formed by burning wood. In addition, fires concentrate inorganic constituents (which do not burn) in the ash, and as a consequence, smoke and burned materials have high concentrations of many hazardous metals, such as cadmium, nickel, and lead. Finally, in large fires, a major potential danger to communities is the increased particle content in ambient air, which can cause problems on a real-time basis in persons with compromised lung function. The problems caused by particles emitted from fires are present, regardless of the level of contamination in the soil where vegetation is grown.

With respect to the potential uptake of chemical hazardous constituents, our research concludes that organic constituents are not typically translocated into vegetation by plants growing in contaminated soils. Inorganics are translocated into plants and have been shown to increase the amount of plant tissue where they are intentionally added to soils, primarily in soil amendments or treated sludges used as fertilizers. There is a limit, however, since excess inorganics will actually kill plants - hence the occurrence of "stressed vegetation" at some waste sites. I am informed by my toxicological staff that the extent to which inorganics concentrate in plants does not significantly increase the potential health risk over that produced by a fire in general.

You also express concerns that a loss of vegetative cover at landfills will result in a release of contaminants to groundwater. The barrier to infiltrating moisture through a landfill cover is provided by the soil (typically clay, silts, or sands, depending on the cover design) or synthetic liner barrier and not the vegetative cover. Accordingly, should a wildfire burn the vegetation, the cover would be re-seeded or replanted as part

Mr. Daniel Hirsch, President  
Mr. Bill Magavern, Sacramento Director

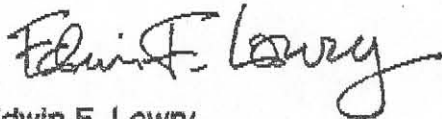
December 28, 2000

Page 3

of the operation and maintenance of the cover. No significant loss of performance of the cover would be expected to occur.

I appreciate your concerns and assure you that we will consider them as we progress on the cleanup of our sites. If you have any questions, please call Pauline Batareeh, Supervising Hazardous Substances Engineer, Land Disposal Branch, Hazardous Waste Management Program at (916) 255-3609.

Sincerely,

A handwritten signature in cursive script that reads "Edwin F. Lowry". The signature is written in dark ink and is positioned above the typed name and title.

Edwin F. Lowry  
Director