

Sampling for the OSHA Report *

Sampling was conducted on four occasions during differing environmental conditions. According to the work descriptions, most work activity at Clear Creek takes place in January through April. Visits were spread over the course of the year and in differing moisture conditions. No sampling was performed during the dry season closure. (Open use season is October 15 through May 30)

More than 60% of EPA's air samples were taken during the dry season. Only 29 were taken in February and none in January, March or April.

Full shift sampling provides exposure information for all activities performed during the work-shift. For example, during motorcycle patrol, the rider will have different exposure situations such as whether they are leading or trailing a vehicle. This full-shift sampling gives a time-weighted average of all the exposure components during the work-shift and does not rely on piecing together exposures for individual activities. It is the accepted method of measuring occupational exposures and is the basis for occupational exposure limits.

EPA pieced together short, generally 1-1.5 hours exposures to build their models.

Historic Exposure *

*While it is not the purpose of this report to analyze the historic data set, this data gives an indication of general exposure concentrations over the past 18 years. The overall mean 8hr time-weighted average exposure for the data set was **0.018 f/cc**. Thirteen (1%) of the 1271 samples exceeded the PEL of 0.1 f/cc for 8 hr time-weighted average exposures. The OSHA personal exposure limit (PEL) is 0.1 f/cc. This data point is shown on the attached chart.*

Differences between EPA and OSHA Risk Assessment *

In determining the risk to the public, EPA considers all age groups including the most susceptible portions of the population. The decision how much risk is acceptable also differs when considering the general population. EPA decisions are based on a acceptable risk level of 1 in 10,000 excess cancer cases. Historically, occupational standards assume a higher level of risk because of the "healthy worker" effect.

Shouldn't hunters and OHV users qualify as healthy workers? People who hunt or ride dirt bikes and quads or typically younger and/or more fit than the average American and maybe the average worker.

Did BLM build their decontamination facility in a contaminated area? *

Entrance Station Operation	3	0.020	0.012
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The entrance station is located on Clear Creek Road outside the ACEC but right next to Clear Creek. The new \$2.2M decontamination facility is sited approximately 150 yards from the entrance station and adjacent to Clear Creek Road and Clear Creek.

The exposure level from working at the entrance station (0.02) is higher than the risk from the *LE Patrol Truck/SUV* (0.008), *transit in pickup truck within the red zone* (0.011), *Habitat Monitoring Hiking* (0.014), *Fence Crew* (0.017) activities and just below the *Motorcycling monitoring/patrol* activity (0.026). The OSHA Personal exposure limit (PEL) is 0.1 f/cc.

Because the decontamination facility is built right next to sources of chrysotile dust, can this site ever be considered safe and can it have a "clean" side?

Clear Creek Sample Results

Activity	Number of Samples	Composite time-weighted average (total sampling time)	Mean of 8-hr time-weighted average exposures
Motorcycle monitoring/patrol	9	0.026	0.017
Water Truck Operation	1	0.039	0.025
Campground and Restroom Cleaning	4	0.021	<0.009
Campground Area Sample	2	BDL(.007)	
Entrance Station Operation	3	0.020	0.012
ATV Monitoring/Patrol	5	0.033	<0.017
Fence Crew	23	0.017	0.015
Habitat Monitoring Hiking/misc activity	6	0.014	<0.010
SWECO trail grader	6	0.061	0.054
Sign Installation	5	0.026	0.022
LE Patrol Truck/SUV	1	BDL(.008)	BDL
Decon (30 minute STEL)	1	BDL(.045)	
Heavy Equipment Operation (Dozer, backhoe, grader)	5	0.012	0.011
Transit in Pickup Truck From Hollister to CCMA Office	3	BDL(0.020 – 0.015)	BDL
Transit in pickup truck within red zone.	1	0.011	0.011

Mean Exposure vs Work Days in Red Zone

