

## **Air Resources Board**



## Alan C. Lloyd, Ph.D. Chairman 1001 I Street • P.O. Box 2815 • Sacramento, California 95812 • www.arb.ca.gov

January 30, 2002

George Flores, M.D.
Public Health Officer
San Diego County Health
and Human Services Agency
1700 Pacific Highway, Room 311
San Diego, CA 92101

San Diego County Board of Supervisors c/o Clerk of the Board 1600 Pacific Highway, Room 402 San Diego, CA 92101

Dear Dr. Flores and the Honorable Board of Supervisors:

I am writing to notify you of the results of ambient hexavalent chromium monitoring conducted by the staff of the Air Resources Board (ARB) near two chrome plating facilities, Carlson & Beauloye and Master Plating, located in San Diego County (County). Carlson & Beauloye is located at 2141 Newton Avenue and Master Plating is located at 2109 Newton Avenue in the Barrio Logan region of San Diego. The monitoring was conducted from December 3, 2001 through December 17.2001, as part of a special monitoring study by the ARB in the County. We are sending you this notice of our results because of the potential threat to public health that may require your attention.

At this time, the ARB staff has received laboratory results for 87 samples taken from six sampling sites (one site was equipped with two samplers for quality assurance purposes) located generally within two hundred feet or closer from these chrome plating facilities. A map of these locations is included as Attachment 1. Each sample was taken for a 24 hour period and the analysis of the samples uses an ion chromatograph. Please be advised that individual 24 hour sampling results are discrete measurements taken at specific sites and do not represent what the average or typical hexavalent chromium exposures may be on an annual basis near these facilities.

Of the 87 samples, 29 samples were above the detection levels. The ARB staff estimated the potential cancer risks in the vicinity of the facilities by using the average findings at each of the six locations monitored and by assuming that a person would be continuously breathing those levels for 24 hours a day for 70 years. The potential cancer risk of lifetime exposure to these levels of hexavalent chromium is estimated to be approximately 150 chances in a million averaged over all six of the monitoring

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Website: <a href="http://www.arb.ca.gov">http://www.arb.ca.gov</a>.

California Environmental Protection Agency

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locations. The individual monitoring locations had an average estimated potential cancer risk ranging from 36 to 418 chances in a million. The estimates for each of the sites are presented in the table below. The measured 24 hour ambient hexavalent chromium concentrations for each site and for each day are listed in Attachment 2.

## Summary of Potential Lifetime Cancer Risk for Sites Near Carlson & Beauloye and Master Plating Facilities

Sampling Location	Average Hexavalent Chromium (ng/m³)	Average Potential Cancer Risk (chances/ million)
1	1.44	216
2	0.37	55
2c	0.38	57
3	0.84	128
4	0.62	93
5	2.78	418
6	0.24	36
Average (87 Samples)	0.98	147

<sup>&#</sup>x27;nanogram per cubic meter (a nanogram is equal to 10<sup>4</sup> of a gram)

These estimated risk numbers are preliminary, based on air monitoring data of limited duration. Additional study is needed (and as described below is starting) in order to better determine the ongoing exposures and risk in the vicinity of the facilities. The preliminary risk estimates are offered to provide a relative indication of the potential health risk. Typically, the average potential cancer risk from monitored levels of hexavalent chromium in large urban areas ranges from about 15 to 30 chances in a million, with some limited areas exhibiting higher potential risks of approximately 50 chances in a million. To put these numbers into further perspective, the estimated background potential cancer risk from all air toxics in a large urban area is

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estimated to be about 1,000 chances in a million, with the statewide average near 750 chances in a million. Also, an individuals chance of developing cancer over his or her lifetime from all causes is estimated to be about one in five in California, or about 200,000 chances in a million.

The ARB and San Diego County Air Pollution Control District (SDAPCD) are conducting an immediate inspection of these facilities to determine if the cause of these elevated levels of hexavalent chromium can be determined. We also plan to conduct source tests to determine if the source's control equipment are operating property. In addition, the ARB, in consultation with the SDAPCD, will be conducting additional air monitoring to provide information that may be needed to ensure public health protection.

For further information on this matter, please contact Mr. Donald J. Ames, Assistant Chief, Stationary Source Division, at (916) 3234227. You can also obtain information regarding ambient monitoring done in the Barrio Logan area of San Diego County, including hexavalent chromium-related information on the ARB website located at http://www.arb.ca.gov/ch/aq\_result/barriologan/barriologan.htm

Sincerely,

Peter D. Venturini, Chief Stationary Source Division

**Attachments** 

cc: Mr. Donald J. Ames, Assistant Chief Stationary Source Division

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