Winston H. Hickox
Agency Secretary

Air Resources Board

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

Gray Davis
Governor

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, 200l 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: http://www.arb.ca.gov.

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/m^3)	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

'nanogram per cubic meter (a nanogram is equal to 10^{-9} 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

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 properly. 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,

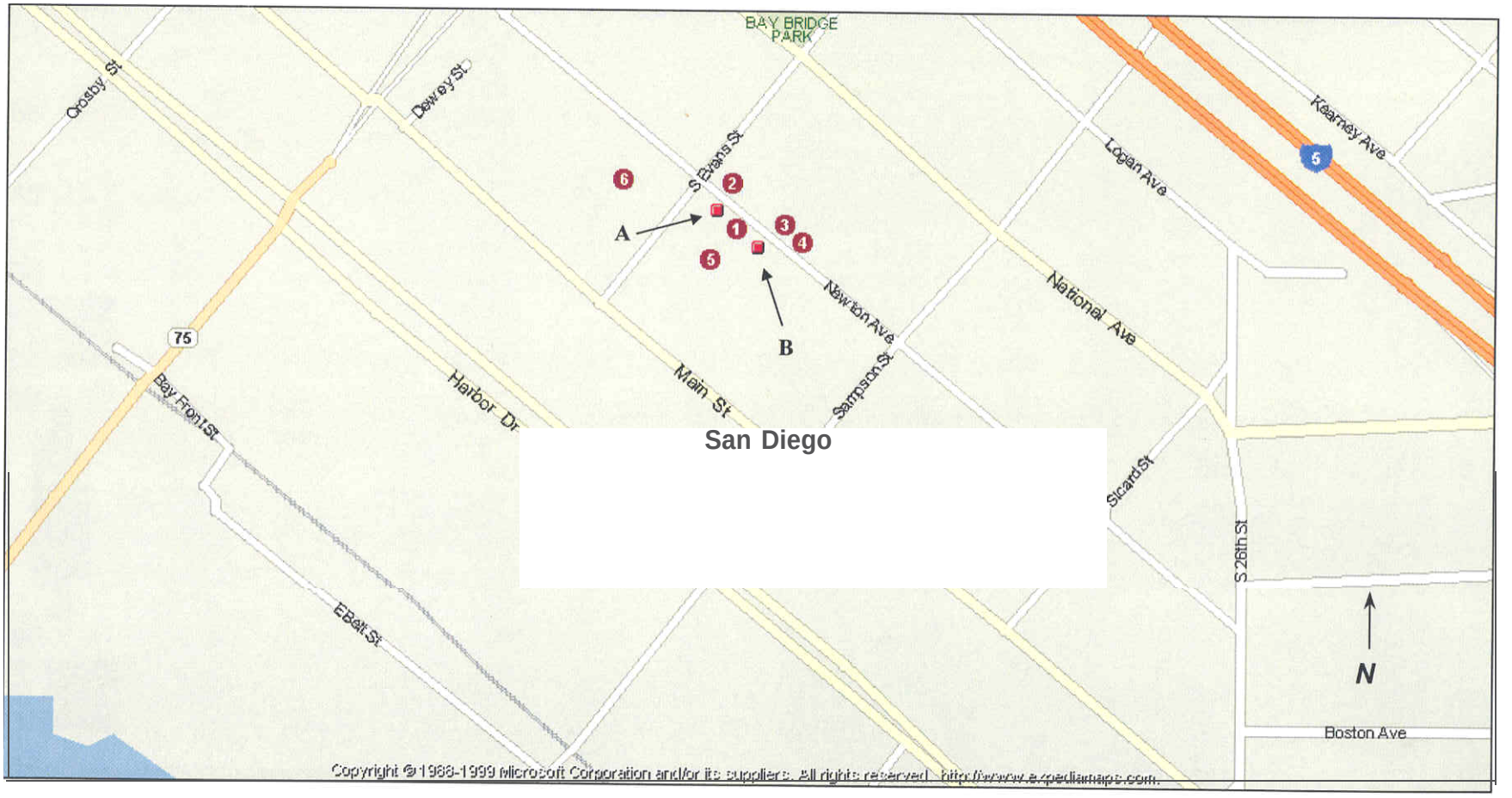
Peter D. Venturini, Chief
Stationary Source Division

Attachments

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

Mr. Richard J. Sommerville
Air Pollution Control Officer
San Diego County Air Pollution Control District
9150 Chesapeake Dr.
San Diego, CA 92123-1096

Attachment 1



Approximate map scale: 1" = 1/12 mile. All sampling locations are approximate.

A = Master Plating (Decorative Chrome), 2109 Newton
B = Carlson & Beauloye (Hard Chrome), 2141 Newton

Attachment 2

BARRIO LOGAN III MONITORING RESULTS (nanograms per cubic meter)								
DATE	LOCATION 1	LOCATION 2	LOCATION 2C [1]	LOCATION 3	LOCATION 4	LOCATION 5	LOCATION 6	AREA (87 samples)
12/03/2001	<LOD [2]	<LOD	INVALID [3]	<LOD	<LOD	<LOD	<LOD	
12/04/2001	0.2	<LOD	<LOD	<LOD	<LOD	0.5	<LOD	
12/05/2001	1.9	<LOD	<LOD	<LOD	0.3	0.6	INVALID	
12/06/2001	3.8	<LOD	<LOD	0.2	0.2	0.3	<LOD	
12/07/2001	9.3	3.6	3.2	7.9	4.8	1.3	0.3	
12/08/2001	<LOD	<LOD	INVALID	<LOD	<LOD	<LOD	<LOD	
12/10/2001	<LOD	<LOD	<LOD	0.8	1.5	<LOD	<LOD	
12/11/2001	<LOD	<LOD	<LOD	INVALID	<LOD	4.0	0.3	
12/12/2001	0.2	<LOD	<LOD	<LOD	<LOD	6.9	1.0	
12/13/2001	2.4	<LOD	<LOD	<LOD	<LOD	22	0.5	
12/14/2001	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	
12/15/2001	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	
12/17/2001	0.3	<LOD	<LOD	0.4	0.5	<LOD	<LOD	
SITE TOTALS	18.7	4.8	4.2	10.1	8.1	36.2	2.9	
AREA TOTAL								85
SITE AVERAGES	1.44	0.37	0.38	0.84	0.62	2.78	0.24	
AREA AVERAGE								0.98
CANCER RISK [4] (chances per million)	216	55	57	126	93	416	36	147

1. Second monitor sited at Location 2.
2. For samples below the level of detection (LOD), it is standard practice to assume pollutant levels at one-half the LOD. For hexavalent chromium, this level is 0.1 nanograms per cubic meter.
3. Invalid is shown where monitoring results did not meet acceptable technical standards. Invalid samples are not included in estimates of potential cancer risk.
4. Potential cancer risks assume continuous inhalation exposure for a lifetime.