August 21, 2017

TO: Each Supervisor

FROM: Barbara Ferrer, Ph.D., M.P.H., M.Ed.
Director

SUBJECT: UPDATE ON PROGRESS TO ABATE ELEVATED HEXAVALENT CHROMIUM LEVELS IN THE CITY OF PARAMOUNT

On December 20, 2016, your Board instructed the Department of Public Health (DPH) to report back monthly on the progress to abate the endangerment posed by elevated hexavalent chromium ("Chromium-6") emissions in the City of Paramount. This eighth monthly progress report provides information on six key elements of the interagency response: air quality monitoring, soil assessment, enforcement, occupational health, public communication, and legislative activity. DPH is a part of the interagency team consisting of the South Coast Air Quality Management District (SCAQMD), Los Angeles County Fire Department, California Department of Toxics Substances Control (DTSC), California Environmental Protection Agency (CalEPA), and California Air Resources Board (CARB). With recent investigation activities expanding into the City of Long Beach, the Long Beach Department of Health and Human Services has joined the interagency team.

Air Quality Monitoring
SCAQMD continues air quality monitoring across the City of Paramount in order to identify and address sources of Chromium-6. Monitoring is focused on several geographic areas: compliance monitoring points previously established outside of Anaplex Corporation (Anaplex) and Aerocraft Heat Treating Company, Inc. (Aerocraft), the southern investigation area approximately a half-mile south of these facilities, and three area schools.

Outside Anaplex and Aerocraft: When Chromium-6 emissions (measured over a 24-hour period) at the compliance monitoring points outside of Anaplex and Aerocraft exceed 1 nanogram per meter cubed (ng/m³), the SCAQMD requires shut-down of all operations that contribute to Chromium-6 emissions. On July 22, 2017, SCAQMD ordered to temporarily shut down all Chromium-6 emitting operations at Anaplex. Operations remained suspended through August 3, 2017 at which point three-day average measurements demonstrated compliance. As shown in the table below, average Chromium-6 emissions in the original investigation area were higher in July 2017 than previous months.
**Hexavalent Chromium Monitoring Results (ng/m³) – Aerocraft, Anaplex and Nearby Residential Areas**

<table>
<thead>
<tr>
<th>Month</th>
<th>Industrial</th>
<th>Residential 300 ft downwind</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Aerocraft</td>
<td>Anaplex</td>
</tr>
<tr>
<td>October 2016</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>November 2016</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>December 2017</td>
<td>3.0</td>
<td>2.5</td>
</tr>
<tr>
<td>January 2017</td>
<td>1.0</td>
<td>2.1</td>
</tr>
<tr>
<td>February 2017</td>
<td>1.1</td>
<td>0.5</td>
</tr>
<tr>
<td>March 2017</td>
<td>1.1</td>
<td>0.8</td>
</tr>
<tr>
<td>April 2017</td>
<td>0.6</td>
<td>0.4</td>
</tr>
<tr>
<td>May 2017</td>
<td>0.7</td>
<td>0.6</td>
</tr>
<tr>
<td>June 2017</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>July 2017</td>
<td>0.3</td>
<td>1.9</td>
</tr>
</tbody>
</table>

Note: Grey shading indicates air monitoring was not conducted for this location during month listed.

**Southern Investigation Area:** Throughout the month of July, emissions in the southern investigation area (in and around Jackson Street, between Minnesota Avenue and Illinois Avenue) were elevated. In July, Chromium-6 concentrations in air ranged from 0.8 to 7.7 ng/m³, with 51% of the samples in exceedance of 1 ng/m³. Monitors located east of the southern investigation area that are nearby sensitive populations, including homes and a hospital, also reflected an area-wide increase in emissions. SCAQMD’s investigation into the source of Chromium-6 in the southern area continues, and has recently expanded further into the City of Long Beach.

**Area Schools:** SCAQMD has discontinued outdoor air monitoring at four area schools (Los Cerritos Elementary, Paramount High School West, Roosevelt Elementary, and Tanner Elementary). Monitoring by SCAQMD continues at three schools: Lincoln Elementary, Lynn Mokler Elementary, and Wesley Gaines Elementary. In July 2017, Chromium-6 levels at these schools ranged from 0.04 to 7.0 ng/m³, with averages higher than levels found in other areas of the County. The average Chromium-6 concentration at Lincoln Elementary School was 0.9 ng/m³ during the month of July.

In response to elevated Chromium-6 levels in Paramount, DPH sampled indoor air and dust from several homes for one 24-hour period. Chromium-6 was not found in indoor air or dust in the sampled homes. These results, considered together with previous results of soil sampled from nearby areas (referenced below), indicate that inhalation of Chromium-6 emissions in outdoor air continues to represent the most urgent health concern. Additionally, DPH has been providing guidance to the Paramount Unified School District regarding its indoor sampling plan at schools. The District has provided an updated timeline for sampling that is scheduled to begin in September. Depending on the indoor test results, PUSD may need to take further steps to adequately prevent Chromium-6 exposure among students and steps.

**Soil Assessment**
DTSC finalized and published a report that summarizes results for 20 surface soil samples that were collected in March 2017 in Village Park, which is a recreational area immediately adjacent to
Carlton Forge Works. The report indicates that levels of Chromium-6 in soil samples collected to date fell below the screening level, and DTSC determined that no further action is required. DPH worked with the Fire Department to sample surface soil from 10 locations in public areas adjacent to residential areas that are downwind of the Anaplex and Aerocraft facilities. Sampling results to date suggest that emissions from Anaplex and Aerocraft have not resulted in significant amounts of deposition of Chromium-6 in soil in residential areas. These results indicate that inhalation of Chromium-6 emissions in air remains the most urgent health concern in the original investigation area.

**Enforcement**
SCAQMD held a second public hearing on July 25, 2017 regarding the petition for an Order of Abatement to Carlton Forge Works to mitigate odor emissions as quickly as possible. Carlton Forge Works agreed to a stipulated order that includes several key conditions to minimize the potential for odors. These include curtailing of all grinding activities from 3 p.m. to 5 p.m. (the time period cited in numerous related odor complaints to SCAQMD), installing a system to effectively reduce odors in the grind building exhaust, and hiring an independent consultant to monitor odors and assess the effectiveness of control measures. The requirement to refrain from grinding activities between 3 p.m. to 5 p.m. will expire if the company can demonstrate that additional air pollution controls have effectively addressed odor issues.

On August 3, 2017, DPH issued four directives in order to protect the public’s health from elevated Chromium-6 levels that were detected in the month of July by SCAQMD monitors at or near these facilities: Carlton Forge Works, Press Forge, Mattco, and Weber Metals. DPH directed these facilities to “take all necessary actions in cooperation with the SCAQMD to eliminate the current nuisance endangering the health of the public, which may include partial or full suspension of operations.” On August 9, 2017, DPH and the City of Long Beach Department of Health and Human Services issued joint directives to two additional facilities in the City of Long Beach: NC Dynamics and Lubec. Additionally, AQMD is seeking an administrative order with Lubec to curtail Chromium-6 emissions, and a hearing took place on August 17, 2017. DPH expects Chromium-6 levels outside of these facilities to decrease, as these facilities continue to work with AQMD to control emissions. DPH will continue to interpret air quality results, and will consider further actions if improvements are not made.

**Occupational Health**
DPH is continuing to track previous referrals made to the California Occupational Safety and Health Administration (Cal/OSHA) regarding Anaplex and Aerocraft. The Cal/OSHA reports have been completed and DPH has requested copies for review.

**Communication**
DPH continues to distribute its health fact sheet to Paramount residents. In the past month, this has included staffing a table at the weekly farmers’ market and at five summer concerts at Progress Park. DPH has also developed a frequently asked questions document that provides information about what is known about Chromium-6 at schools in Paramount (see Attachment 1).

**Legislative Activity**
Governor Brown signed Assembly Bill 1132 which authorizes the SCAQMD to issue an interim order of abatement to a facility pending a hearing before the SCAQMD hearing board for violations that present an imminent and substantial endangerment to the public health or welfare,
or the environment. Once enacted in January 2018, this bill will substantially shorten the time needed for SCAQMD to address emissions that endanger public health, which under current law require a hearing and public notification; a process that on average takes 15 to 20 days.

Governor Brown also signed Assembly Bill 617, which contains several provisions aimed at addressing disproportionate air quality burdens impacting disadvantaged communities. The bill includes requirements for CARB to improve and enhance data collection, monitoring, and reporting of toxic air contaminants; to adopt a statewide emissions reduction strategy targeting pollution-burdened communities; and requires CARB and SCAQMD to implement community emissions reduction programs. Although the provisions of this bill will not be fully implemented for several years, once in place they will increase the amount of resources for environmental monitoring in local communities, and support DPH efforts to reduce the pollution burden and prevent environmental threats through strict enforcement of regulations.

DPH will continue to work closely with SCAQMD, the Fire Department, and County Counsel to report monthly on progress to protect the public’s health in the City of Paramount. If you have questions or need additional information, please let me know.

BF:ab

Attachment

c: Chief Executive Officer
   County Counsel
   Executive Officer, Board of Supervisors
   Fire Department
The South Coast Air Quality Management District (SCAQMD) with the help of the California Air Resources Board (CARB) is studying high levels of the air pollutant chromium 6 in the City of Paramount. Chromium 6 is a metal made by certain industries, such as metal processing, leather tanning, and welding. Overall, the levels of chromium 6 in Paramount are higher than elsewhere in the Los Angeles area and efforts need to be made to bring them down. This sheet provides information about what is known about chromium 6 at schools in Paramount.

**What has been done to check for chromium 6 in the air near schools?**
Since December 2016, the SCAQMD has tested the outdoor air near 12 public schools in Paramount for chromium 6. The air testing looks at the average amount of chromium 6 in the outdoor air over 24 hours.

**What did the air testing near schools find?**
The levels of chromium 6 in the air near schools are about the same as levels in other residential areas of Paramount. Schools and other residential areas of Paramount have average levels of chromium 6 that are higher than average levels of chromium 6 typically found in the Los Angeles area. The graph below shows the average amount of chromium 6 at the schools and the average levels seen throughout Los Angeles between 0.03 to 0.11 nanogram per meter cubed (ng/m³).^{1}

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*Jackson Elementary School result is from one 24-hour outdoor air test on January 7, 2017.
**Lincoln Elementary School monitor is across the street from school property.
{1}Multiple Air Toxics Exposure Study IV (MATES IV) reported annual average levels of Chromium 6 for the Los Angeles Air Basin (South Coast Air Quality Management District, May 2015).
What is being done to address high levels of chromium 6?
The following important steps are being taken:
- Local and state agencies are working to find the industries that are producing chromium 6 and lower the amount of chromium 6 they release.
- The SCAQMD is developing new air quality rules to regulate chromium 6 at metal facilities.
- The City of Paramount is proposing revised zoning rules that look at how close metal facilities are to homes and schools.
- Paramount Unified School District will begin testing the air inside school buildings in September 2017 for chromium 6.

What are the health effects from breathing in chromium 6?
Breathing chromium 6 does not usually cause any immediate health symptoms. However, over many years breathing chromium 6 can cause:
- Increased risk of lung and nasal cancers.
In addition, breathing chromium 6 at high levels over time can cause or worsen:
- Irritation to the nose, throat, and lungs (runny nose, coughing, or nose sores)
- Breathing problems or asthma (trouble breathing, shortness of breath, or wheezing)

What can I do to reduce potential health effects from chromium 6?
The following precautionary measures may help reduce possible exposure to chromium 6:
- Limit exercise, such as running, around industrial places.
- Keep kids away from industrial places where soil may be unhealthy.
- Wash any fruits or vegetables grown close to industrial areas.
- Keep dirt and dust out of your home. Don’t wear shoes inside the home. Regularly get rid of the dust in your home with a mop and wet cloth.
- Avoid smoking (e.g. cigars, cigarettes, pipes) and being around smoking.

What about odors at schools? Are they harmful?
Odors have been reported at some schools. Chromium 6 does not smell, so these odors are not caused by chromium 6. However, odors can cause symptoms, such as nausea, dizziness, headaches and irritation of the eye, nose or throat. Symptoms resulting from smelling odors at school should be reported to the school nurse.

Please report any outdoor odors to SCAQMD by calling 800-CUT-SMOG.

For more information, please contact:
Los Angeles County Department of Public Health, 213-738-3232
http://publichealth.lacounty.gov/eh/airtoxins/

SCAQMD, 800-288-7664
http://www.aqmd.gov/home/regulations/compliance/air-monitoring-activities