July 18, 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 seventh monthly progress report provides information on five key elements of the interagency response: air quality monitoring, soil assessment, enforcement, occupational health, and public communication. 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).

Air Quality Monitoring
SCAQMD continues air quality monitoring across the City of Paramount in order to identify and address sources of Chromium-6. Monitors owned by CARB and the City of Paramount have also been deployed to aid in measuring emissions and locating potential sources of Chromium-6. Monitoring is focused on several geographic areas: compliance monitoring points previously established outside of the Anaplex Corporation (Anaplex) and Aerocraft Heat Treating Company, Inc. (Aerocraft) facilities, the southern investigation area approximately a half-mile south of these facilities, and seven area schools. In the past month, Aerocraft completed construction of new scaffolding outside of its facility and has installed two of its own air quality monitors on the structure, along with two SCAQMD monitors. These new monitors are raised above the height of Aerocraft's perimeter wall in an effort to improve the accuracy of Chromium-6 emission readings.

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 June 27, 2017, SCAQMD ordered Anaplex to temporarily shut down all Chromium-6 emitting operations. Operations remained suspended through July 6, 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 are lower than previous months; however, they remain above the range of Chromium-6 concentrations observed elsewhere in the Los Angeles Basin (0.03 – 0.11 ng/m$^3$).

**Hexavalent Chromium Monitoring Results (ng/m$^3$) – Aerocraft, Anaplex and Nearby Residential Areas**

<table>
<thead>
<tr>
<th>Month</th>
<th>Industrial</th>
<th>Residential</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>
</tbody>
</table>

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

Emissions in the southern investigation area (in and around Jackson Street, between Minnesota Avenue and Illinois Avenue) also remain elevated. In June 2017, Chromium-6 concentrations in air ranged from 0.01 to 3.2 ng/m$^3$, with 24% of the samples in exceedance of 1 ng/m$^3$. SCAQMD has placed additional monitors east of the southern investigation area to estimate potential exposure to nearby sensitive populations, including homes and a hospital. SCAQMD’s investigation into the source of Chromium-6 in the southern area is ongoing, and has recently expanded further to the City of Long Beach. Pending ongoing source investigation results, SCAQMD and DPH may need to enact and enforce the 1 ng/m$^3$ compliance standard for other metal facilities in the City of Paramount.

Outdoor air monitoring by SCAQMD continues at seven schools: Lincoln Elementary, Los Cerritos Elementary, Lynn Mokler Elementary, Paramount High School West, Roosevelt Elementary, Tanner Elementary, and Wesley Gaines Elementary. In June 2017, Chromium-6 levels at these schools ranged from 0.04 to 2.6 ng/m$^3$, with averages higher than levels found in other areas of the County. The average Chromium-6 concentration at Lincoln Elementary School was 0.7 ng/m$^3$ during the month of June.

While the concentrations of Chromium-6 in outdoor air near homes and schools do not pose an immediate health risk to public health and safety, future long-term risk must be further evaluated through the expanded network of outdoor air monitors and other environmental sampling efforts, as described below. To better understand potential exposure to Chromium-6 in indoor home environments, DPH sampled indoor air and dust of several homes closest to industrial zones at the end of June 2017, and expects results to be available in the coming weeks. DPH has also been providing guidance to the Paramount Unified School District regarding its indoor sampling plan at schools, which will be implemented in August 2017 before school resumes. Results from the
indoors sampling efforts will be used to inform any necessary recommendations for air filters or other measures for homes and schools.

Soil Assessment
The Fire Department issued a notice of violation to both Anaplex and Aerocraft for hazardous levels of metals in flower beds and public areas. Aerocraft has submitted a proposed plan, and the Fire Department is overseeing its clean-up process. Anaplex has not yet responded to the notice of violation; the County team is working to identify and pursue options for compliance.

DTSC is preparing a report that will summarize 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. DTSC anticipates this report will be released within the next week, and DPH will review the results and recommended next steps to ensure protective public health measures are taken, if necessary.

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 indicate that emissions from Anaplex and Aerocraft did not result in significant amounts of deposition in soil in residential areas. These results indicate that inhalation of current Chromium-6 emissions in air is the primary health concern in the original investigation area.

Enforcement
SCAQMD held a public hearing on July 13, 2017 regarding the petition for an Order of Abatement to Carlton Forge Works to mitigate odor emissions as quickly as possible. Carlton Forge Works has agreed to a stipulated order, which will include development of a comprehensive odor plan.

Occupational Health
DPH is continuing to track the occupational health issues reported previously, which include concerns observed during joint agency facility inspections Anaplex and Aerocraft that were referred to the California Occupational Safety and Health Administration (Cal/OSHA). The Cal/OSHA report for Anaplex has been completed and DPH has requested a copy.

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 the first of a series of summer concerts at Progress Park.

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

c:  Chief Executive Officer
    County Counsel
    Executive Officer, Board of Supervisors
    Fire Department