June 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 sixth 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.

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/m$^3$), the SCAQMD requires shut-down of all operations that contribute to Chromium-6 emissions. Over the last month, no shut-downs have been triggered, and average Chromium-6 levels at these two facilities remained lower than in previous months (see table below).
Hexavalent Chromium Monitoring Results (ng/m³) – Aerocraft, Anaplex and Nearby Residential Areas

<table>
<thead>
<tr>
<th>Month</th>
<th>Industrial</th>
<th>Residential</th>
<th>300 ft downwind</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 2016</td>
<td>26</td>
<td>4.7</td>
<td></td>
</tr>
<tr>
<td>November 2016</td>
<td>12</td>
<td>11</td>
<td>2.0</td>
</tr>
<tr>
<td>December 2017</td>
<td>3.0</td>
<td>2.5</td>
<td>0.7</td>
</tr>
<tr>
<td>January 2017</td>
<td>1.0</td>
<td>2.1</td>
<td>0.5</td>
</tr>
<tr>
<td>February 2017</td>
<td>1.1</td>
<td>0.5</td>
<td>0.6</td>
</tr>
<tr>
<td>March 2017</td>
<td>1.1</td>
<td>0.8</td>
<td>0.7</td>
</tr>
<tr>
<td>April 2017</td>
<td>0.6</td>
<td>0.4</td>
<td>0.3</td>
</tr>
<tr>
<td>May 2017</td>
<td>0.7</td>
<td>0.6</td>
<td>0.4</td>
</tr>
</tbody>
</table>

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

While average Chromium-6 emissions in the original investigation area have remained below the compliance standard of 1 ng/m³, they are above the range of Chromium-6 concentrations observed elsewhere in the Los Angeles Basin (0.03 – 0.11 ng/m³). Emissions in the southern investigation area (in and around Jackson Street, between Minnesota Avenue and Illinois Avenue) remain elevated. In May 2017, Chromium-6 concentrations in air ranged from 0.08 to 2.64 ng/m³, with 26% of the samples in exceedance of 1 ng/m³. SCAQMD’s investigation into the source of Chromium-6 in the southern area is ongoing. Pending ongoing source investigation results, SCAQMD and DPH may need to enact and enforce the 1 ng/m³ 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 Molker Elementary, Paramount High School West, Roosevelt Elementary, Tanner Elementary, and Wesley Gaines Elementary. In May 2017, Chromium-6 levels at these schools ranged from 0.03 to 2.60 ng/m³, with averages higher than levels found in other areas of the County. The average Chromium-6 concentration at Lincoln Elementary School was 0.51 ng/m³ during the month of May, which is an increase from levels detected during the previous month.

The continued presence of Chromium-6 in outdoor air in residential areas necessitates indoor sampling to characterize potential exposure inside homes and schools. DPH will be sampling indoor air and dust of several homes closest to industrial zones at the end of June 2017. Additionally, DPH is coordinating with Paramount Unified School District and the air agencies to conduct indoor sampling at schools, beginning with Lincoln Elementary. Results from the indoor sampling efforts will be used to inform any necessary recommendations for air filters or other measures for homes and schools.

Soil Assessment
In response to order by the Fire Department, Aerocraft continues clean-up of soil in flower beds and public areas around its facility. The Fire Department issued a similar order to Anaplex, and soil clean-up has begun at that facility, as well.
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DPH worked with the Fire Department to draft a plan and sample soil from 10 locations in public areas adjacent to residential areas that are downwind of the Anaplex and Aerocraft facilities. Initial analysis from this sampling indicates that emissions from Anaplex and Aerocraft did not result in significant amounts of deposition in soil in residential areas. While this soil assessment is not yet finalized, these initial results indicate that inhalation of current Chromium-6 emissions in air is the primary health concern. Additional soil testing in other geographic areas with the City of Paramount is ongoing.

**Enforcement**

SCAQMD is currently implementing its newly adopted emissions control rule for metal forging facilities (Rule 1430). The rule applies to metal grinding and cutting operations, which were previously exempt from SCAQMD permitting requirements. The new rule prohibits forging facilities from conducting metal grinding and cutting operations outdoors, requires the installation of emissions control equipment, and includes a series of housekeeping measures that facilities must implement to minimize fugitive emissions. The rule applies to 22 grinding facilities in SCAQMD’s jurisdiction, including 4 facilities in the City of Paramount.

In response to a high volume of community complaints, SCAQMD allocated additional inspector resources to the Paramount area. For continued odor impacts, SCAQMD issued Carlton Forge Works a Notice of Violation on June 8, 2017. Subsequently, on June 13, 2017, SCAQMD filed a petition for an Order of Abatement to facilitate the curtailment of the odors as quickly as possible. SCAQMD confirmed that operations at Carlton Forge Works are causing metallic odor emissions that impact the nearby community. These odors can cause symptoms such as headache, nausea, respiratory irritation, and irritation of the eyes, nose, and throat, among others. Additionally, odors can negatively impact overall quality of life and sense of well-being. DPH determined that these emissions are in violation of the California Health and Safety Code and directed Carlton Forge Works to abate the odor problem. Carlton Forge Works responded to DPH on July 20, 2017 indicating its intent to abate any odorous emissions from its facility. The independent SCAQMD Hearing Board is expected to meet on July 13, 2017 for a hearing regarding the petition. DPH will provide testimony at this hearing.

DPH continues to attend monthly meetings of the City of Paramount’s Air Quality Subcommittee. This meeting has included discussion and planning for a newly launched pilot program that requires select business license applications and renewals to be submitted to SCAQMD staff for their review before then can receive approval by the City. The goals of the program are to enhance environmental protections and to improve compliance with air quality regulations.

**Occupational Health**

As previously reported, DPH has raised occupational health concerns observed during joint agency facility inspections. The joint agency inspection teams referred cases, specifically Anaplex and Aerocraft, to the California Occupational Safety and Health Administration (Cal/OSHA) for further investigation. The Cal/OSHA report for Anaplex has been completed and DPH has requested a copy.

During an investigation of the industrial area around Anaplex and Aerocraft, the Fire Department referred a metal polishing facility to DPH for concerns regarding worker exposure to large amounts of metal dust. For consultative purposes, DPH conducted an environmental and
occupational assessment at a metal polishing facility, which included a walkthrough, limited testing, and worker interviews. Although hexavalent chromium was not found in dust samples collected from the metal polishing facility, DPH observed the significant potential for dust combustion/explosions and adverse health effects of dust exposure for employees. DPH provided resources for the facility owner to contact the National Institute of Occupational Safety and Health (NIOSH) and Cal/OSHA for assistance with meeting required occupational safety standards.

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 participating in a local heritage festival. DPH attended the most recent SCAQMD community meeting on June 13, 2017; these meetings take place periodically and are well attended by a variety of stakeholders including local community-based organizations and elected officials. Additionally, in the past month the office of Supervisor Hahn sent a letter to all households in the City of Paramount to inform residents about the ongoing Chromium-6 investigation.

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