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April 5, 2018

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 on the progress to abate the endangerment posed by elevated hexavalent chromium ("Chromium-6") emissions in the City of Paramount. DPH has reported to the Board on this issue since January 2017, with the last quarterly report dated January 19, 2018. This quarterly report provides information on five key elements of the interagency response: status of the interagency team, air quality monitoring, enforcement, public communication, and rulemaking activity.

Status of the Interagency Team

Since December 2016, DPH has been a member of the interagency team consisting of the South Coast Air Quality Management District (SCAQMD), Los Angeles County Fire Department, California Department of Toxic Substances Control (DTSC), California Environmental Protection Agency (CalEPA), California Air Resources Board (CARB), and the Long Beach Department of Health and Human Services. As of January 2018, the interagency team has discontinued regular meetings, as SCAQMD and these agencies have shifted resources from investigating Chromium-6 in Paramount to related issues more broadly across the county of Los Angeles and within other cities. DPH continues to work with these agency partners and surrounding cities as needed on an individual basis.

Air Quality Monitoring

Air quality monitoring by SCAQMD is focused on several geographic areas: compliance monitoring points previously established outside of the Anaplex and Aerocraft facilities, the southern investigation area approximately a half-mile south of these facilities, and two area schools within the Paramount Unified School District (PUSD). As reported in the previous update, SCAQMD released a summary report in December 2017 highlighting reductions in Chromium-6 in outdoor air within the industrial areas of the City of Paramount. Currently, there are 16 monitors operating in the community of Paramount and 2 monitors at schools. Reduced levels have been maintained over the last quarter.

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The monthly average in industrial areas of Chromium-6 concentrations for the quarter ranged from 0.4 to 0.5 nanograms per meter cubed (ng/m^3) (see Attachment I). For residential and school areas, monthly average Chromium-6 concentrations ranged from 0.2 to 0.9 ng/m^3 (see Attachment I). These levels are slightly above the significant long-term health risk level of 0.2 ng/m^3 , and remain higher than typical ambient levels (0.04-0.1 ng/m^3).ⁱ

Area Schools

In October 2017, Supervisor Hahn directed DPH to conduct follow-up indoor air testing in PUSD classrooms. Over the last six months, DPH has met with PUSD on multiple occasions to develop a sampling protocol at several PUSD schools. While the sampling protocol has been agreed upon, PUSD has continued to deny access unless DPH agrees to overly broad indemnification language that Counsel and DPH believe would place an undue burden on the County. This impasse leaves continued uncertainty as to whether conditions in the schools pose a threat to the health of students and staff.

Enforcement

Anaplex and Aircraft

When Chromium-6 emissions at the compliance monitoring points outside of Anaplex and Aircraft exceed 1 ng/m^3 , SCAQMD requires shut-down of all operations that contribute to Chromium-6 emissions. On February 26, 2018, SCAQMD ordered Anaplex to shut down all operations that emit Chromium-6, after air monitors detected elevated levels at outside the facility. This is the fifth time SCAQMD has ordered Anaplex to curtail its operations since the Hearing Board adopted its order in January 2017.

Carlton Forge Works:

On January 2, 2018, Carlton Forge Works implemented additional measures in its grinding room to control odors. SCAQMD reports that in the months since the new controls were put in place, odor complaints have significantly decreased.

Public Communication

DPH continues to provide information and health education material to Paramount residents by email, phone, in-person meetings, and through online resources. The frequently asked questions (FAQ) document for community members was also updated to include the most recent air monitoring results (see attachment II).

Rulemaking Activity

SCAQMD is currently updating its Rule 1469, which covers facilities that conduct chromium electroplating or chromic acid anodizing operations. The updated Rule seeks to establish requirements for hexavalent chromium-containing tanks that are currently unregulated by the existing Rule 1469. These requirements include building enclosures, enhanced housekeeping and best management practices, periodic source testing, and permanent total enclosures for facility areas where chromium-containing tanks are located. To inform SCAQMD's rulemaking process, DPH hired a contractor to research technologies to control emissions and alternatives to using Chromium-6 in industrial processes. The contractor will submit a written report to DPH that will be shared with SCAQMD. SCAQMD is expected to schedule the next public hearing related to the proposed Rule 1469 in May 2018.

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DPH will continue to work closely with SCAQMD, the Fire Department, and County Counsel to report quarterly on progress to protect the public's health in the City of Paramount.

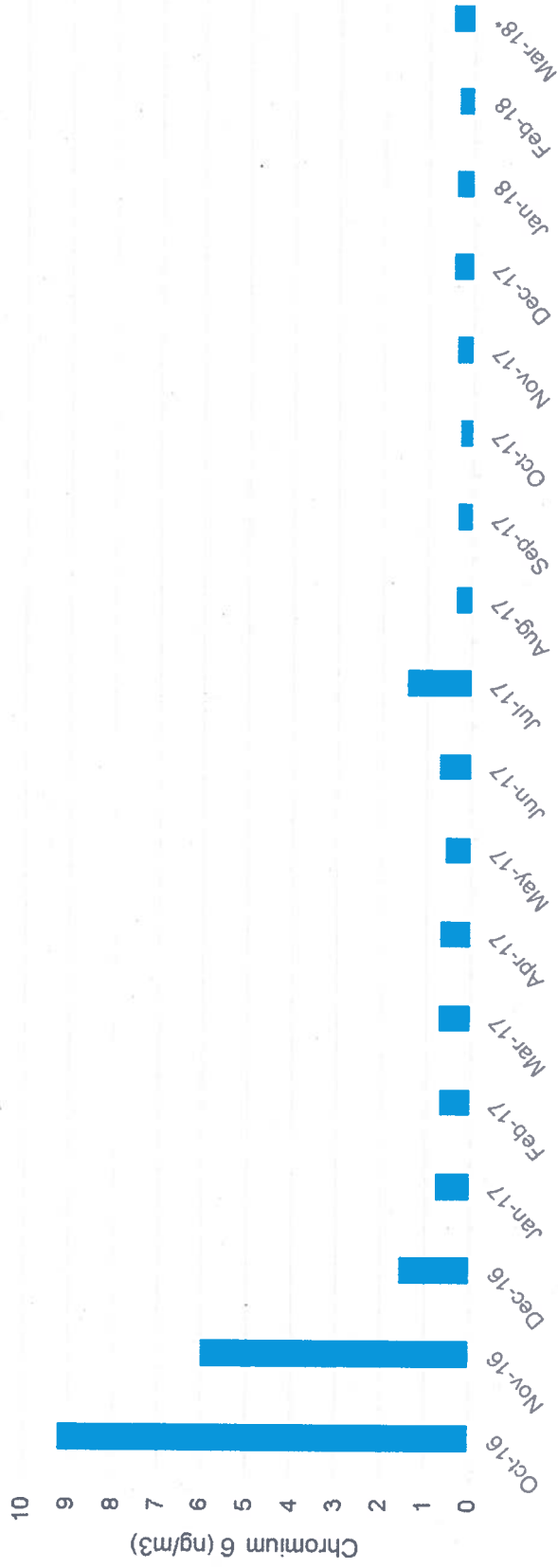
If you have questions or need additional information, please let me know.

BF:ab

Attachments

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

Figure 1. Chromium 6 in Outdoor Air (ng/m³)
Near Industrial Facilities in Paramount



* Partial data is available for March, 2018 as of the date of this report

Figure 2. Chromium 6 in Outdoor Air (ng/m³)
Near Residential Areas and School Areas in Paramount



* Partial data is available for March, 2018 as of the date of this report



Response to Hexavalent Chromium in the City of Paramount

Hexavalent Chromium, also known as chromium-6, is a metal used in certain industrial processes, such as metal plating, leather tanning, and welding. In late 2016, the South Coast Air Quality Management District (SCAQMD) determined that the airborne levels of chromium-6 in Paramount were higher than other areas in the Los Angeles region. Since then, the SCAQMD, the California Air Resources Board, and other local agencies have been investigating the extent of chromium-6 pollution and potential sources of this problem. While exposure to chromium-6 generally does not lead to immediate health symptoms, breathing chromium-6 at high levels over many years can cause or worsen breathing problems such as asthma, and cause irritation to the nose, throat, and lungs. Chromium-6 is a known human carcinogen, and exposure to high levels over many years may increase the risk of lung and nasal cancers.

1. What has been found through air quality testing?

SCAQMD began monitoring air in the City of Paramount in August 2013. In October 2016, monitoring near the intersection of Minnesota and Madison streets found much higher chromium-6 levels than in other areas of Los Angeles County. Air monitoring was expanded to the City's southeast industrial area and school zones, and into northern Long Beach in 2017. The southeast industrial area has shown chromium-6 levels up to 50 times greater than levels in other areas of Los Angeles County, with the highest recorded levels reaching 9 nanograms per cubic meter (ng/m³).

Chromium-6 levels generally improved in Paramount through 2017, but Paramount continue to have higher levels than other areas in Los Angeles. In March 2018, levels in Paramount were recorded in the 0.3 to 0.49 ng/m³ range, while the central and southern regions of Los Angeles County generally run in the 0.04 to 0.11 ng/m³ range.

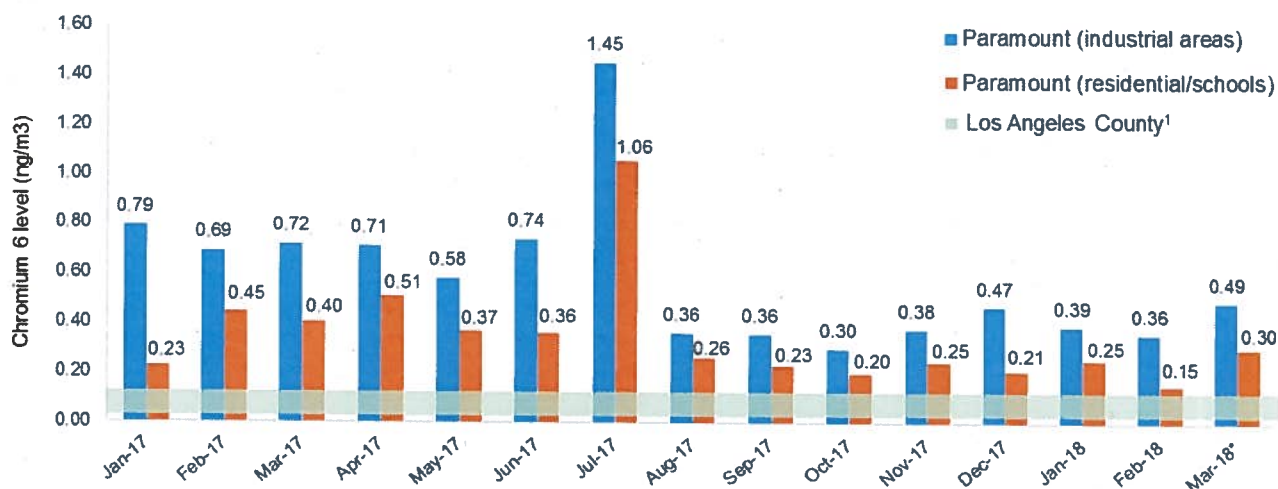
Details of the air quality investigation can be found at:

<http://www.aqmd.gov/home/news-events/community-investigations/air-monitoring-activities#>, and are shown in the following graph:

Key Points

- High levels of toxic chromium-6 were found in the air in the City of Paramount in 2016.
- Chromium-6 levels in outdoor air have improved, but remain higher than average chromium-6 levels in other parts of Los Angeles County.
- Exposure to high levels of chromium-6 over long periods of time can affect your health.
- Several metal businesses have been directed by SCAQMD to reduce chromium-6 emissions.

Chromium 6 in Paramount Compared to Los Angeles



* Partial data is available for March 2018 as of the date of this report.

¹ Multiple Air Toxics Exposure Study IV annual average levels of chromium 6 from the air monitoring locations closest to Paramount, including Compton, North Long Beach, Huntington Park, Pico Rivera and downtown Los Angeles (South Coast Air Quality Management District, May 2015).

2. What has been found in outdoor air near schools?

Since December 2016, the SCAQMD has tested chromium-6 in outdoor air near 12 public schools in Paramount. Schools, like other residential areas of Paramount, have had average levels of chromium-6 that are higher than levels of chromium-6 typically found in the Los Angeles area. For further details see:

http://publichealth.lacounty.gov/eh/docs/PH_RelHexChrom_ParamountSchoolFAQ-en.pdf

3. What other chromium-6 testing has been done?

The Los Angeles County Department of Public Health (Public Health) tested the indoor air for chromium-6 in a small number of homes close to select metal facilities with known air emissions of chromium-6 and, in partnership with the City of Paramount, tested for chromium-6 in soil near homes. Additionally, the California Department of Toxic Substances Control, in partnership with the City of Paramount, tested the soil at Village Skate Park. Preliminary soil testing in the industrial zones has shown elevated levels of chromium-6 and other metals in the soil near metal industries, suggesting the need for expanded soil testing in these industrial zones. Overall, these sampling results do not represent an immediate health hazard, but future testing will be essential as chromium-6 mitigation continues in this area.

4. What are the health effects of breathing chromium-6?

Breathing chromium-6 generally does not cause immediate health symptoms. However, breathing chromium-6 over many years can increase your risk of lung and nasal cancers, irritation to the nose, throat, and lungs (runny nose, coughing, or nose sores), and can worsen existing conditions such as asthma and other respiratory illnesses.

Metallic odors have been reported in the community. These odors are not likely to be caused by chromium-6, which tends to be odorless, but may represent other metals emitted by industries in the area. Odors can lead directly to symptoms such as nausea, dizziness, headaches, and irritation of the eye, nose, or throat. Please report all outdoor odors to SCAQMD by calling 1-800-CUT-SMOG.

5. What is being done to address high levels of chromium-6 in Paramount?

Local and state agencies have worked to identify facilities that produce chromium-6, and to lower the amount of chromium-6 that they release. Since November 2016, Public Health and SCAQMD have issued directives and orders to 8 businesses in Paramount and North Long Beach related to chromium-6 emissions and/or odors: Anaplex, Aerocraft MattCo, Press Forge, Weber Metals, Carlton Forge Works, and LubeCo.

The SCAQMD is developing new air quality rules to regulate chromium-6 in metal processing facilities. Link to more information about the rule-making process here:

<http://www.aqmd.gov/home/rules-compliance/rules/proposed-rules#1469>

The City of Paramount has adopted revised zoning rules for metal processing operations to reduce emissions.

6. What can I do to reduce potential health problems from chromium-6?

The following precautionary measures may help reduce possible exposure to chromium 6:

- Limit physical activity around industrial facilities.
- Keep children away from industrial facilities, where soil and dust may be unhealthy.
- Wash fruits or vegetables grown at home.
- Keep dirt and dust out of your home. Avoid wearing shoes inside the home. Use a mop and wet cloth to clean dust inside your home.
- Do not smoke or use tobacco products.
- Visit your health care provider for questions about your health.

For employees working in industrial areas:

- Reduce workplace exposure to dust, mists, and fumes that may contain metals. Ask your employer for proper requirements for your facility, such as such as gloves, protective clothing, face and eye protection, and/or respirators.
- Use wet clean up methods for dust. Do not dry sweep. Vacuum with HEPA filter. Wash hands before eating or drinking, including before meal breaks.
- When leaving work, remove work clothing and footwear, and wash hands to avoid bringing contamination home.
- For health-related questions, visit your health care provider. If your health care provider has further questions, please call the Toxicology and Environmental Assessment Branch, at 213-738-3220.