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CENTER FOR ENVIRONMENTAL HEALTH

SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF LOS ANGELES

CENTER FOR ENVIRONMENTAL HEALTH, a non-profit corporation, Plaintiff, v. AEROCRAFT HEAT TREATMENT CO., INC; ANAPLEX CORPORATION; PRECISION CASTPARTS CORP.; and DOES 1 through 10, inclusive, *et al.*, Defendants.	Case No. BC 651485 ~~[PROPOSED]~~ **CONSENT JUDGMENT RE: AEROCRAFT HEAT TREATMENT CO., CARLTON FORGE WORKS, INC., PRESS FORGE COMPANY AND PRECISION CASTPARTS CORP.** Complaint Filed: February 23, 2017 Trial Date: None set Department: 32

1. INTRODUCTION

1.1. This Consent Judgment is entered into by Plaintiff Center for Environmental Health, a non-profit corporation ("CEH"), and Aerocraft Heat Treatment Co., Inc. ("Aerocraft"), Carlton Forge Works ("Carlton Forge"), Press Forge Company ("Press Forge") and Precision Castparts Corp. ("Precision Castparts") (together "Settling Defendants") to settle claims asserted

by CEH against Settling Defendants as set forth in the operative Complaint in the matter *Center for Environmental Health v. Aerocraft Heat Treatment Co., et al.*, Los Angeles Superior Court Case No. BC 651485 (the "Action"). CEH and Settling Defendants are referred to collectively as the "Parties."

1.2. On December 13, 2016, CEH served its initial 60-Day Notice of Violation (the "Notice") relating to the California Safe Drinking Water and Toxic Enforcement Act of 1986, California Health & Safety Code § 25249.5, *et seq.* ("Proposition 65") on Aerocraft, Precision Castparts, the California Attorney General, the District Attorney for the County of Los Angeles and City Attorney for the city of Los Angeles.[1]

1.3. On March 29, 2017, CEH served a 60-Day Notice of Violation on Press Forge, Precision Castparts and the Public Prosecutors.

1.4. On June 16, 2017, CEH served a 60-Day Notice of Violation on Carlton Forge, Precision Castparts and the Public Prosecutors.

1.5. The Notices allege violations of Proposition 65 with respect to exposures to hexavalent chromium ("Chromium") allegedly caused by emissions from Settling Defendants' facilities located at 15701 Minnesota Avenue, Paramount, California (the "Aerocraft Facility"), 7743 E. Adams Street, Paramount, California (the "Carlton Forge Facility"), and 7770 Jackson Street, Paramount, California (the "Press Forge Facility"). The Aerocraft Facility, Carlton Forge Facility and Press Forge Facility are together herein referred to as the "Facilities."

1.6. Settling Defendants are each a corporation that employs ten (10) or more persons and that own and/or operate one or more of the Facilities.

1.7. On February 23, 2017, CEH filed the original complaint in the Action naming Aerocraft and Precision Castparts among others as a defendant therein.

[1] The California Attorney General, the District Attorney for the County of Los Angeles and City Attorney for the city of Los Angeles are referred to collectively herein as the Public Prosecutors.

1.8. On June 15, 2017, CEH filed the First Amended Complaint, which added Press Forge as a defendant in the Action. On September 12, 2017, CEH filed the operative Second Amended Complaint, which adds Carlton Forge as a defendant in the Action.

1.9. In 2014, Carlton Forge began working with the South Coast Air Quality Management District ("SCAQMD") in, among other things, an effort to reduce emissions of Chromium. During the period from 2014 through the present, Carlton Forge has enacted numerous measures to reduce its Chromium emissions. Attached as Exhibit A is a list of such actions by Carlton Forge ("Carlton Forge's Chromium Reduction Measures"). The Parties believe that full implementation of Carlton Forge's Chromium Reduction Measures will reduce the exposures caused by the Carlton Forge Facility alleged in the Action.

1.10. On June 13, 2017, Aerocraft submitted a Risk Reduction Plan to the SCAQMD in response to SCAQMD's letter designating the Aerocraft Facility as subject to SCAQMD's potentially high risk facility regulations (the "Risk Reduction Plan"). Attached as Exhibit B is a copy of the Risk Reduction Plan, which sets forth thirty-one specific measures Aerocraft has undertaken or will undertake at the Aerocraft Facility in order to ameliorate the potential health risks resulting from emissions from the Aerocraft Facility ("Aerocraft's Chromium Reduction Measures"). The Parties believe that full implementation of Aerocraft's Chromium Reduction Measures will reduce the exposures caused by the Aerocraft Facility alleged in the Action.

1.11. Press Forge has begun working with the SCAQMD in, among other things, an effort to reduce emissions of Chromium. As a result, Press Forge has enacted numerous measures to reduce its Chromium emissions. Attached as Exhibit C is a list of such actions by Press Forge ("Press Forge's Chromium Reduction Measures"). The Parties believe that full implementation of the Press Forge's Chromium Reduction Measures will reduce the exposures from the Press Forge Facility alleged in the Action.

1.12. For purposes of this Consent Judgment only, the Parties stipulate that: (i) this Court has jurisdiction over the allegations of violations contained in the Notice and Complaint and personal jurisdiction over Settling Defendants as to the acts alleged in the Complaint; (ii)

venue is proper in the County of Los Angeles; and (iii) this Court has jurisdiction to enter this Consent Judgment as a full and final resolution of all claims which were or could have been raised in the Complaint based on the facts alleged in the Notices and Complaint with respect to exposures to Chromium caused by emissions from the Facilities.

1.13. The Parties enter into this Consent Judgment as a full and final settlement of all claims which were or could have been raised in the Complaint arising out of the facts or conduct related to Settling Defendants alleged therein. By execution of this Consent Judgment and agreeing to comply with its terms, the Parties do not admit any fact, conclusion of law, or violation of law, nor shall compliance with the Consent Judgment constitute or be construed as an admission by the Parties of any fact, conclusion of law, or violation of law. Settling Defendants deny the material, factual, and legal allegations in the Notice and Complaint and expressly deny any wrongdoing whatsoever. Except as specifically provided herein, nothing in this Consent Judgment shall prejudice, waive, or impair any right, remedy, argument, or defense any of the Parties may have in this or any other pending or future legal proceedings. This Consent Judgment is the product of negotiation and compromise and is accepted by the Parties solely for purposes of settling, compromising, and resolving issues disputed in this Action.

2. DEFINITIONS

2.1. "Effective Date" means the date on which the Court enters this Consent Judgment.

2.2. "Warning Threshold" means Chromium measurements of 1.0 nanograms/cubic meter of air as measured using an ambient particle sampler, when averaged over the most recent three consecutive samples. For Aerocraft, the Warning Threshold shall be measured based samples from the Aerocraft Monitoring Location. For Press Forge, the Warning Threshold shall be measured based on samples from the Press Forge Monitoring Location and for Carlton Forge, the Warning Threshold shall be measured based samples from the Carlton Forge Monitoring Location.

2.3. "Monitoring Locations" includes the Aerocraft Monitoring Location, the Press Forge Monitoring Location and the Carlton Forge Monitoring Location.

2.4. "Aerocraft Monitoring Location" means SCAQMD monitoring location number 8, which is located on the eastern edge of the Aerocraft Facility as set forth in Exhibit D.

2.5. "Press Forge Monitoring Location" means SCAQMD monitoring location number 19, which is located on the eastern edge of the Press Forge Facility as set forth in Exhibit E.

2.6. "Carlton Forge Monitoring Location" means SCAQMD monitoring location number 2 as set forth in Exhibit F. Carlton Forge may, but is not required to, contract with a third party to set up an additional monitor on top of the building on Carlton Forge's property immediately adjacent to monitoring location number 2 to conduct monitoring. Should Carlton Forge choose to pay for and utilize a third-party monitor, it must provide CEH with 15-days advance notice. Thereafter, provided any such monitor complies with the requirements for third-party monitoring under Section 3.1.1 and is placed as close to the SCAQMD monitor at that location as is safely possible, the results of the third-party monitoring will be averaged with the results of the SCAQMD monitor for purposes of determining whether Carlton Forge has exceeded the Warning Threshold.

3. INJUNCTIVE RELIEF

3.1. Monitoring of Chromium Emissions. SCAQMD is engaged in air monitoring at each of the Monitoring Locations and is scheduled to continue to do so through December 2018. SCAQMD is conducting monitoring consistent with the Environmental Protection Agency's Sampling Schedule, which calls for monitoring every sixth day with additional unscheduled random days.[2] All monitoring data is made public by SCAQMD on a website approximately seven days after the results are obtained.

3.1.1. Duration of Monitoring. The monitoring required under this Consent Judgment shall, at a minimum, continue up through December 31, 2018. If, at that time, the monitoring results for the prior nine months have all been below the Warning Thresholds, this monitoring provision shall cease subject to Section 3.1.2 below. If, as of December 31, 2018, the

[2] The EPA Sampling Schedule Calendar is available at: https://www3.epa.gov/ttn/amtic/calendar.html

monitoring results have not been consistently below the Warning Threshold for at least nine months at any of the Monitoring Locations, the monitoring required under Section 3.1 shall continue at those Monitoring Locations where the levels were not consistently below the Warning Threshold until such time as the monitoring results at those Monitoring Locations are consistently below the Warning Threshold for a period of nine months. If, for any reason, SCAQMD ceases monitoring the air quality at any of the Monitoring Locations before the duration required by the terms of this Consent Judgment is completed, Settling Defendants shall contract with a qualified and an independent third party to conduct air monitoring at the Monitoring Location. The monitoring device(s) used by the third party shall be an ambient particle sampler with the capability of collecting a minimum of 12 liters per minute over the 24-hour sampling period. The laboratory analyzing the filters used in the monitoring device shall be capable of meeting a detection limit no higher than 0.3 ng/filter, thus providing the ability to detect Chromium at levels as low as 0.05 nanograms per cubic meter of air. Any monitoring by the third party shall be conducted using the same processes as set forth above in Section 3.1, except that every third sample shall be taken on a random day rather than in accordance with the EPA Sampling Schedule and the data will be made available to CEH no later than four business days after results are obtained by Settling Defendants. The results need not be made public by Settling Defendants.

3.1.2. Possible Additional Monitoring. In the event that CEH obtains evidence that Settling Defendants are emitting Chromium in excess of any of the Warning Thresholds, CEH shall provide such evidence to counsel for Settling Defendants. The Parties will then meet and confer for a period not less than 30-days. If Settling Defendants concur with CEH's evidence, Settling Defendants shall begin monitoring in accordance with this Section 3.1 and provide warnings in accordance with Section 3.2. Should Settling Defendants dispute the evidence, CEH may either agree with Settling Defendants or file a motion in accordance with Section 5 below.

3.2. Clear and Reasonable Warnings. As of the Effective Date, Settling Defendants shall provide warnings to the individuals living and working within the perimeter of the area

depicted in the maps set forth in Sections 3.2.1.1-3.2.1.3. The warnings shall use the warning language set forth in Section 3.2.1 and the warning methods set forth in 3.2.2 and 3.2.3. Settling Defendants shall continue to provide the warnings in accordance with the frequencies set forth in Sections 3.2.2 and 3.2.3 until such time as Settling Defendants obtain results from the air monitoring set forth in Section 3.1 demonstrating Chromium levels do not exceed the Warning Thresholds for all of the 3-sample averages during 8 consecutive weeks. Thereafter, if the results of the air monitoring required pursuant to Section 3.1 yield Chromium levels in excess of the Warning Threshold at any of the Monitoring Locations, the warning requirements of this Section 3.2 shall restart from the date of Settling Defendants' receipt of data demonstrating the exceedance of the Warning Threshold as set forth in Sections 3.2.2.1 and 3.2.3.1 below. Notwithstanding the foregoing, should Settling Defendants have credible evidence demonstrating that an exceedance of the Warning Threshold is due to emissions unrelated to the Facility or an isolated incident that was identified and corrected expeditiously, Settling Defendants may commence a meet and confer process with CEH by providing it with notice in accordance with Section 8.1. The parties shall then attempt to informally determine whether additional warnings must be provided over a period of 30 days. If no resolution has been reached at the conclusion of that period, Settling Defendants shall either: (1) re-start the warnings in accordance with this Section; or (2) file a motion in the Superior Court of Los Angeles County Court to prove that no additional warning is required.

3.2.1. Content of the warnings.

3.2.1.1. The warning provided in accordance with this Section for the Aerocraft Facility shall state the following in both English and Spanish:

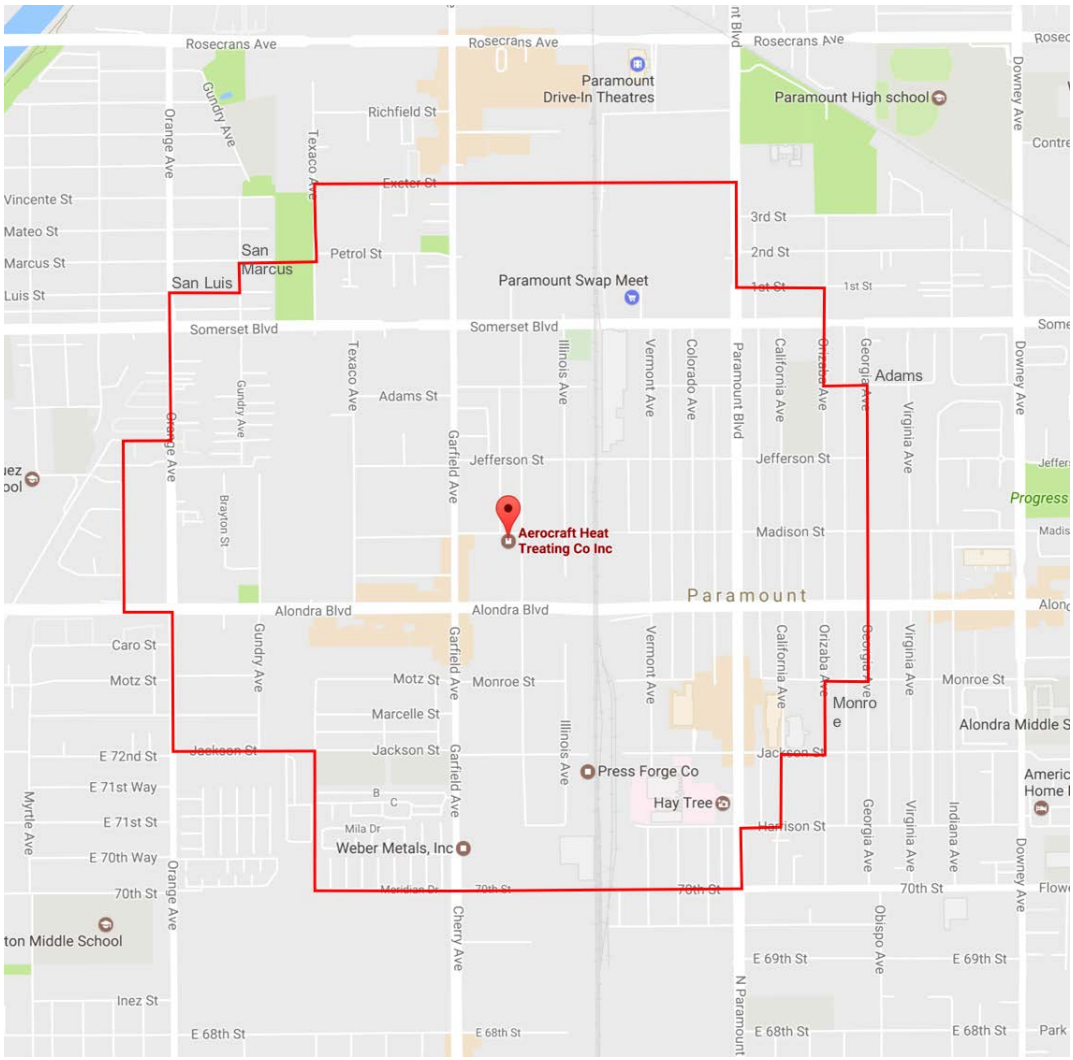
⚠ WARNING

Entering the area near Aerocraft Heat Treating Company, Inc., located at 15701 Minnesota Avenue, Paramount, California 90723, can expose you to hexavalent chromium from metal processing. Hexavalent chromium is known to the State of California to cause cancer and birth defects or other reproductive harm.

Visit www.P65Warnings.ca.gov for more information.

Visit www.aqmd.gov/home/regulations/compliance/air-monitoring-activities for more information on air monitoring by the SCAQMD in Paramount, CA.

Below is a map of the area for which warnings will be provided:



3.2.1.2. The warning provided in accordance with this Section for the Carlton Forge Facility shall state the following in both English and Spanish:

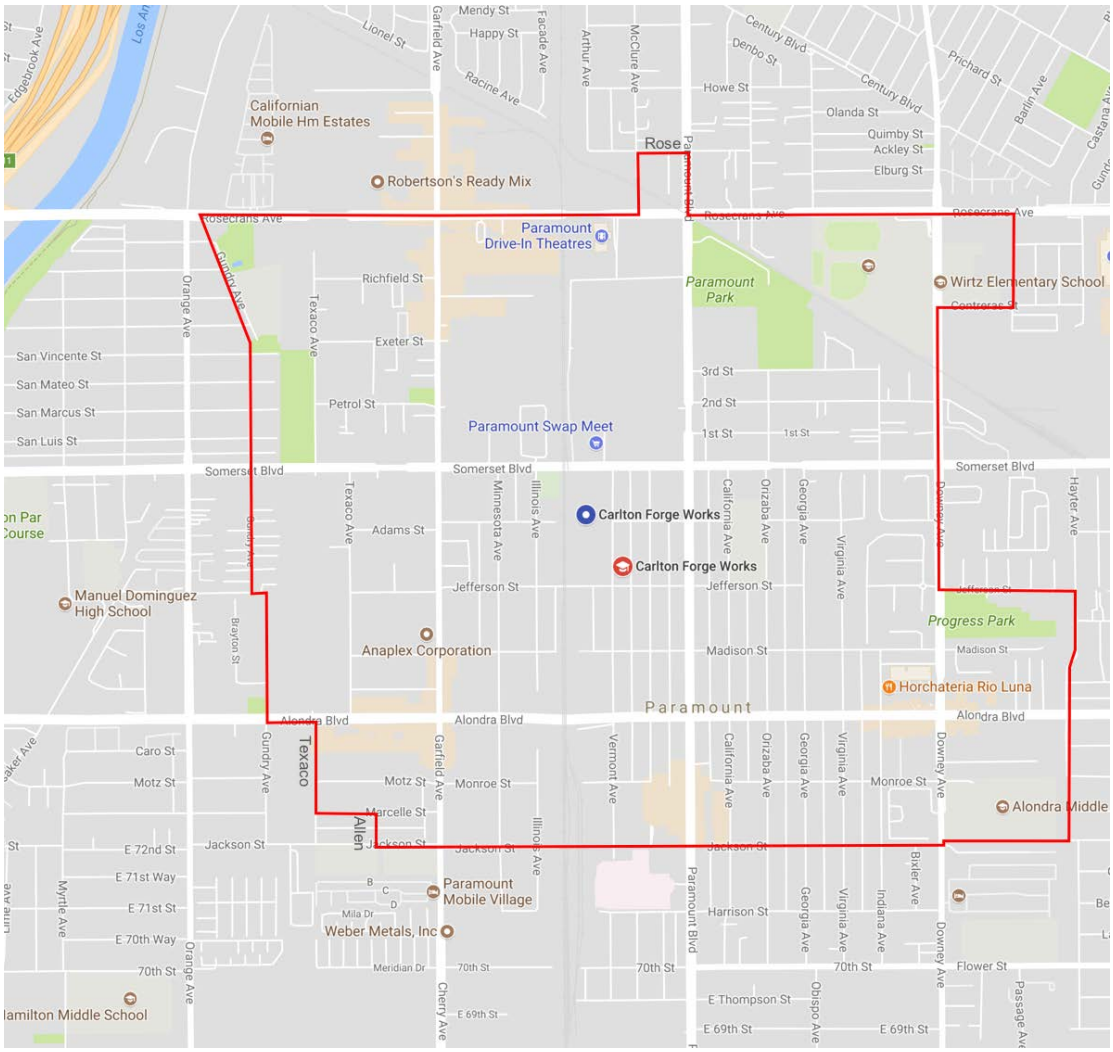
⚠ WARNING

Entering the area near Carlton Forge Works, located at 7743 E. Adams Street, Paramount, California 90723, can expose you to hexavalent chromium from metal

processing. Hexavalent chromium is known to the State of California to cause cancer and birth defects or other reproductive harm. Visit www.P65Warnings.ca.gov for more information.

Visit www.aqmd.gov/home/regulations/compliance/air-monitoring-activities for more information on air monitoring by the SCAQMD in Paramount, CA.

Below is a map of the affected area:



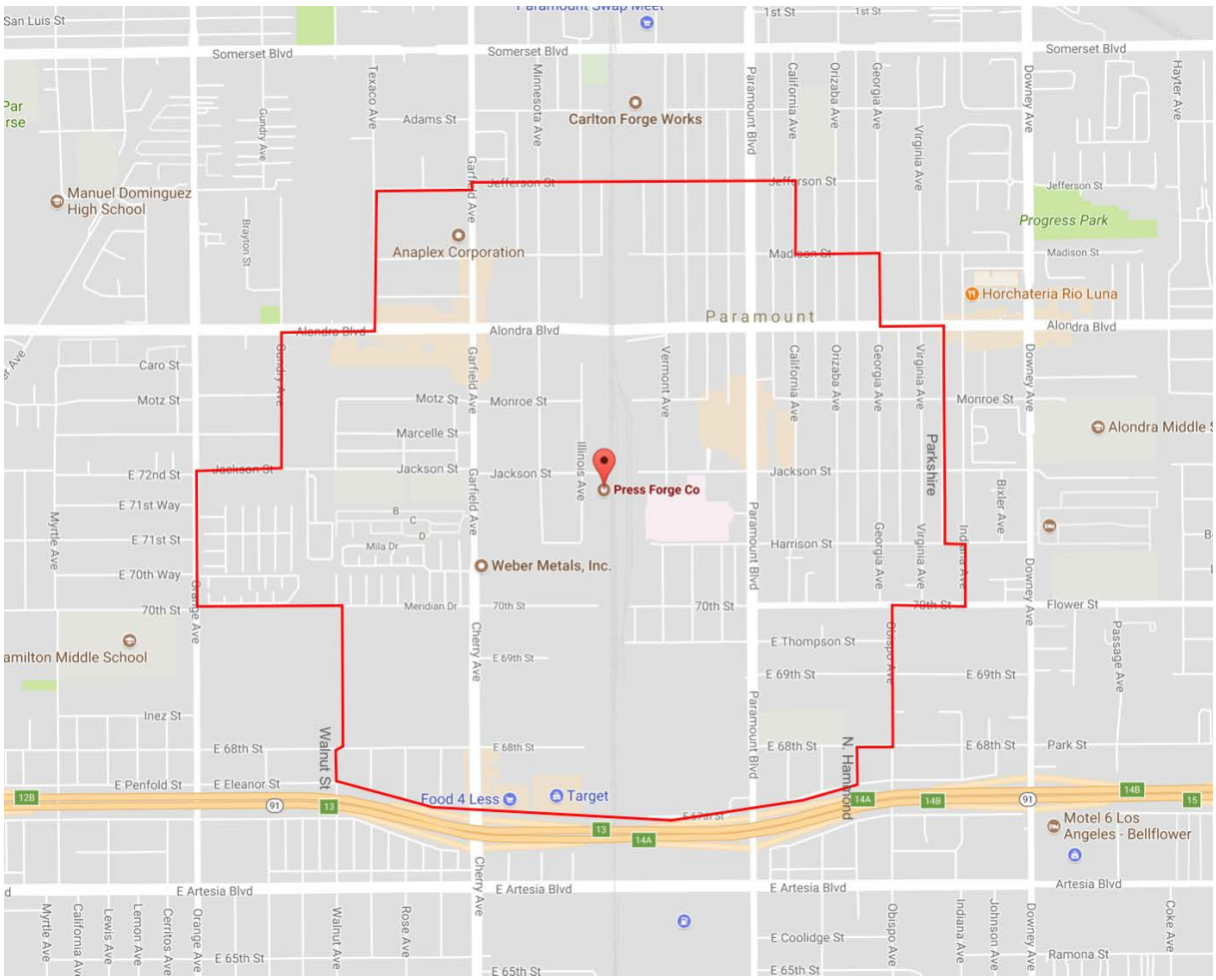
3.2.1.3. The warning provided in accordance with this Section for the Press Forge Facility shall state the following in both English and Spanish:

⚠ WARNING

Entering the area near Press Forge Company, located at 7770 Jackson Street, Paramount, California 90723, can expose you to hexavalent chromium from metal processing. Hexavalent chromium is known to the State of California to cause cancer and birth defects or other reproductive harm. Visit www.P65Warnings.ca.gov for more information.

Visit www.aqmd.gov/home/regulations/compliance/air-monitoring-activities for more information on air monitoring by the SCAQMD in Paramount, CA.

Below is a map of the affected area:



3.2.1.4. Although Settling Defendants are agreeing to provide warnings throughout the areas identified above, they do not agree that any exposures that occur within the warning area are caused by or relate to emissions from the Facilities. Indeed, the

Parties acknowledge that there are other sources of Chromium that could be responsible for exposures occurring within the warning area identified above.

3.2.2. Mailed or delivered warnings. Within 30-days of the Effective Date and every ninety days thereafter, Settling Defendants shall mail or deliver a copy of the warning set forth in Section 3.2.1 above to every resident and business located within the area of the map depicted therein. The warning shall be displayed on an 8.5 by 11 inch page and shall be in a font size no less than 14 point arial. The mailed warning shall include with it the English and Spanish versions of the Health Effects of Hexavalent Chromium fact sheet published by the California Office of Environmental Health Hazard Assessment, copies of which are attached as Exhibits G and H. To the extent the warning is placed in an envelope, the outside of the envelope shall clearly state in both English and Spanish that an important health hazard warning is enclosed.

3.2.2.1. Mailed/Delivered Warnings Following a Restart. In the event that warnings must be restarted in accordance with Section 3.2 above, Settling Defendants shall, within 10 business days of receipt of the data demonstrating an exceedance of the Warning Threshold, mail or deliver warnings as required under this Section.

3.2.3. Published/Posted Warnings. Within 90 days following the Effective Date and quarter-annually thereafter, Settling Defendants shall publish the warning set forth in Section 3.2.1 in the following newspapers that are local to the Paramount, California area: the Paramount Pulse Beat, the Press Telegram, the Paramount Journal and La Opinion (together, "Newspaper Warnings"). The Newspaper Warnings must be at least one-quarter page and in both English and Spanish.

3.2.3.1. Published/Posted Warnings Following a Restart. In the event that warnings must be restarted in accordance with Section 3.2 above, Settling Defendants shall, within 30 days of receipt of the data demonstrating an exceedance of the Warning Threshold, again begin publishing warnings in accordance with this Section.

3.3. Audits and Additional Measures to Reduce Excessive Chromium Emissions. In the event that the results of the air monitoring demonstrate Chromium levels in excess of two

times the Warning Threshold at any of the Monitoring Locations (a "Significant Exceedance"), Settling Defendants shall perform an audit of its compliance with the Chromium Reduction Measures for the facility at which the Significant Exceedance was measured. The audit must be conducted within 60-days following the Significant Exceedance, and, in the event Settling Defendants are no longer in compliance with each of the Chromium Reduction Measures for that facility, they shall take action to ensure such compliance. In the event that Settling Defendants are in full compliance with the Chromium Reduction Measures for that facility and the Chromium measured from the Monitoring Location continues to exceed two times the Warning Threshold following the Audit, Settling Defendants shall, within 30 days following the audit of their compliance with the Chromium Reduction Measures, perform an audit of that entire facility in order to determine additional measures they can perform in order to reduce and/or eliminate Chromium emissions. Reports of all audits performed pursuant to this section shall be made available to CEH. Within 15 days following any entire facility audit, Settling Defendants shall meet and confer with CEH to determine what additional measures should be implemented in order to reduce the Chromium emissions. Notwithstanding the foregoing, should Settling Defendants have credible evidence demonstrating that the Significant Exceedance is due to emissions unrelated to the Facility, or an isolated incident that was identified and corrected expeditiously, Settling Defendants may provide notice to CEH in accordance with Section 8.1 to commence a meet and confer process with CEH. The parties shall then attempt to informally determine whether or not additional measures must be enacted over a period of 30 days. If no resolution has been reached at the conclusion of that period, Settling Defendants shall either: (1) implement the additional measures proposed by CEH to reduce the Chromium emissions; or (2) file a motion in the Superior Court of Los Angeles County Court to prove that no additional measures are necessary.

4. PAYMENTS

4.1. Settling Defendants shall pay to CEH the total sum of $467,000, which shall be allocated as follows:

4.1.1. $61,377 as a civil penalty pursuant to California Health & Safety Code § 25249.7(b), such money to be apportioned by CEH in accordance with California Health & Safety Code § 25249.12 (25% to CEH and 75% to the State of California's Office of Environmental Health Hazard Assessment).

4.1.2. $46,033 as an Additional Settlement Payment ("ASP") in lieu of civil penalty to CEH pursuant to Health & Safety Code § 25249.7(b), and California Code of Regulations, Title 11, § 3204. CEH intends to place these funds in CEH's Paramount Clean Air Fund and shall use them to educate the public about hexavalent Chromium and other air pollutants, to work with allied organizations to reduce exposure to Chromium and other air pollutants (including providing air filters to the Paramount community), and to thereby reduce the public health impacts and risks of exposure to Chromium and other air pollutants in California. CEH shall obtain and maintain adequate records to document that ASPs are spent on these activities and CEH agrees to provide such documentation to the Attorney General within thirty days of any request from the Attorney General. The payment pursuant to this Section shall be made payable to the Center for Environmental Health and associated with taxpayer identification number 94-3251981**.**

4.1.3. $359,590 as a reimbursement of a portion of CEH's reasonable attorneys' fees and costs. This amount shall be divided into two checks: (1) a check for $303,083 shall be made payable to Lexington Law Group; and (2) a check for $56,507 shall be made payable to the Center for Environmental Health.

4.1.4. The payments required under Sections 4.1.1-4.1.3 shall be made in four (4) separate checks, all to be delivered within ten (10) days following the Effective Date. The payments required pursuant to Sections 4.1.1 and 4.1.2 shall each be made payable to the Center

for Environmental Health. All checks shall be delivered to Mark Todzo at Lexington Law Group at the address set forth in Section 8.1.2.

5. ENFORCEMENT OF CONSENT JUDGMENT

5.1. CEH may, by motion or application for an order to show cause before the Superior Court of Los Angeles County, enforce the terms and conditions contained in this Consent Judgment. Prior to bringing any motion or application to enforce the requirements of Section 3 above, CEH shall meet and confer regarding the basis for CEH's anticipated motion or application in an attempt to resolve it informally, including providing Settling Defendants a reasonable opportunity of at least thirty (30) days to cure any alleged violation. Should such attempts at informal resolution fail, CEH may file its enforcement motion or application. The prevailing party on any motion to enforce this Consent Judgment shall be entitled to its reasonable attorney's fees and costs incurred as a result of such motion or application. This Consent Judgment may only be enforced by the Parties.

6. MODIFICATION OF CONSENT JUDGMENT

6.1. This Consent Judgment may only be modified by written agreement of CEH and Settling Defendants, or upon motion of CEH or Settling Defendants as provided by law.

7. CLAIMS COVERED AND RELEASE

7.1. CEH Release on Behalf of Public Interest. Provided Settling Defendants comply in full with their obligations under Section 4 hereof, this Consent Judgment is a full, final, and binding resolution between CEH acting in the public interest and Settling Defendants and Settling Defendants' parents, officers, directors, agents, shareholders, divisions, subdivisions, subsidiaries, affiliated entities, and their respective successors and assigns ("Defendant Releasees"), of all claims alleged in the Complaint in this Action arising from any violation of Proposition 65 that have been or could have been asserted in the public interest against Settling Defendants and Defendant Releasees, regarding the failure to warn about exposure to Chromium emissions from the Facilities prior to the Effective Date.

7.2. CEH Release on Behalf of Itself. Provided Settling Defendants comply in full with their obligations under Section 4 hereof, CEH, for itself, releases, waives, and forever discharges any and all claims alleged in the Complaint against Settling Defendants and Defendant Releasees arising from any violation of Proposition 65 that have been or could have been asserted regarding the failure to warn about exposure to Chromium emissions from the Facilities prior to the Effective Date. In furtherance of the foregoing, as to the alleged exposure to Chromium emissions from the Facilities prior to the Effective Date, CEH on behalf of itself only, hereby waives any and all rights and benefits which it now has, or in the future may have, conferred upon it with respect to claims arising from any violation of Proposition 65 or any other statutory or common law regarding the failure to warn about alleged exposure to Chromium emissions from the Facilities by virtue of the provisions of section 1542 of the California Civil Code, which provides as follows:

> A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

CEH understands and acknowledges the significance and consequence of this waiver of the California of Civil Code section 1542 is that even if CEH suffers future damages arising out of or resulting from, or related directly or indirectly to, in whole or in part, claims arising from any violation of Proposition 65 or any other statutory or common law regarding the failure to warn about alleged exposure to Chromium from the Facilities prior to the Effective Date, CEH will not be able to make any claim for those damages or injunctive relief against the Settling Defendants or Defendant Releasees. Furthermore, CEH acknowledges that it intends these consequences for any such claims arising from any violation of Proposition 65 or any other statutory or common law regarding the failure to warn about exposure to Chromium from the Facilities as may exist as of the date of this release but which CEH does not know exist, and which, if known, would

materially affect its decision to enter into this Consent Judgment, regardless of whether its lack of knowledge is a result of ignorance, oversight, error, negligence or any other cause.

7.3. Provided Settling Defendants comply in full with their obligations under Section 4 hereof, Compliance with the terms of this Consent Judgment by Settling Defendants and the Defendant Releasees shall constitute compliance with Proposition 65 by Settling Defendants and Defendant Releasees with respect to any alleged failure to warn about Chromium emissions from the Facilities from the Effective Date up through the date that monitoring is completed in accordance with Section 3.1.

8. PROVISION OF NOTICE

8.1. When any Party is entitled to receive any notice under this Consent Judgment, the notice shall be sent by first class and electronic mail as follows:

8.1.1. Notices to Settling Defendants. The persons for Settling Defendants to receive notices pursuant to this Consent Judgment shall be:

Melissa A. Jones
Stoel Rives LLP
500 Capitol Mall, Suite 1600
Sacramento, CA 95814
melissa.jones@stoel.com

8.1.2. Notices to Plaintiff. The persons for CEH to receive notices pursuant to this Consent Judgment shall be:

Mark Todzo
Lexington Law Group
503 Divisadero Street
San Francisco, CA 94117
mtodzo@lexlawgroup.com

8.2. Any Party may modify the person and address to whom the notice is to be sent by sending the other Parties notice by first class and electronic mail.

9. COURT APPROVAL

9.1. This Consent Judgment shall become effective on the Effective Date, provided however, that CEH shall prepare and file a Motion for Approval of this Consent Judgment and Settling Defendant shall support approval of such Motion.

9.2. If this Consent Judgment is not entered by the Court, it shall be of no force or effect and shall not be introduced into evidence or otherwise used in any proceeding for any purpose.

10. GOVERNING LAW AND CONSTRUCTION

10.1. The terms and obligations arising from this Consent Judgment shall be construed and enforced in accordance with the laws of the State of California.

11. ENTIRE AGREEMENT

11.1. This Consent Judgment contains the sole and entire agreement and understanding of CEH and Settling Defendant with respect to the entire subject matter hereof, and any and all prior discussions, negotiations, commitments, or understandings related thereto, if any, are hereby merged herein and therein.

11.2. There are no warranties, representations, or other agreements between CEH and Settling Defendants except as expressly set forth herein. No representations, oral or otherwise, express or implied, other than those specifically referred to in this Consent Judgment have been made by any Party hereto.

11.3. No other agreements not specifically contained or referenced herein, oral or otherwise, shall be deemed to exist or to bind any of the Parties hereto. Any agreements specifically contained or referenced herein, oral or otherwise, shall be deemed to exist or to bind any of the Parties hereto only to the extent that they are expressly incorporated herein.

11.4. No supplementation, modification, waiver, or termination of this Consent Judgment shall be binding unless executed in writing by the Party to be bound thereby.

11.5. No waiver of any of the provisions of this Consent Judgment shall be deemed or shall constitute a waiver of any of the other provisions hereof whether or not similar, nor shall such waiver constitute a continuing waiver.

12. RETENTION OF JURISDICTION

12.1. This Court shall retain jurisdiction of this matter to implement or modify the Consent Judgment.

13. AUTHORITY TO STIPULATE TO CONSENT JUDGMENT

13.1. Each signatory to this Consent Judgment certifies that he or she is fully authorized by the Party he or she represents to stipulate to this Consent Judgment and to enter into and execute the Consent Judgment on behalf of the Party represented and to legally bind that Party.

14. NO EFFECT ON OTHER SETTLEMENTS

14.1. Nothing in this Consent Judgment shall preclude CEH from resolving any claim against another entity on terms that are different from those contained in this Consent Judgment.

15. EXECUTION IN COUNTERPARTS

15.1. The stipulations to this Consent Judgment may be executed in counterparts and by means of facsimile, which taken together shall be deemed to constitute one document.

IT IS SO STIPULATED:

CENTER FOR ENVIRONMENTAL HEALTH

Charlie Pizarro
Associate Director

AEROCRAFT HEAT TREATING CO., INC.

Signature

GREG STONICK

Printed Name

GENERAL MANAGER

Title

CARLTON FORGE WORKS, INC.

Signature

Printed Name

Title

PRESS FORGE COMPANY

Signature

Printed Name

Title

AEROCRAFT HEAT TREATING CO., INC.

_____
Signature

_____
Printed Name

_____
Title

CARLTON FORGE WORKS, INC.


Signature

RAFI BALTA
Printed Name

GENERAL MANAGER
Title

PRESS FORGE COMPANY

_____
Signature

_____
Printed Name

_____
Title

AEROCRAFT HEAT TREATING CO., INC.

_____
Signature

_____
Printed Name

_____
Title

CARLTON FORGE WORKS, INC.

_____
Signature

_____
Printed Name

_____
Title

PRESS FORGE COMPANY


Signature

ROBERT ORTIZ
Printed Name

GENERAL MANAGER
Title

PRECISION CASTPARTS CORP.

Ruth A. Beyer
Signature

Ruth Beyer
Printed Name

SVP + General Counsel
Title

IT IS SO ORDERED:

ELIHU M. BERLE

Dated: 12-19-2018 ~~2015~~

Judge of the Superior Court

Exhibit A

Exhibit A

Chromium Reduction Measures at CFW

Date	Actions Taken
January 2006	Installed 3 bag houses to control emissions from the Grind Building and 1 bag house to control emissions from the Grit Blast Unit.
September 2013	Sheaved-up the fans on the 3 Grind Building baghouses, increasing the airflow by 35% to improve baghouse collection efficiency.
October 2013	Installed plastic strips at all 3 Grind Building Overhead Doors to improve baghouse collection efficiency.
October 2013	Ceased all grinding outside of the Grind Building
October 2013	Rearranged the Grind Building Work Tables closer to the exhaust intakes to improve baghouse collection efficiency.
November 2013	Sealed the Grind Building Roof Monitor creating a Permanent Total Enclosure (PTE) encompassing the Grind Building. CFW engaged an independent testing company that certified that the Grind Building is a PTE.
December 2013	Implemented enhanced workplace clean-up procedures to decrease dust buildup in Grind Building.
December/January 2013	Conducted source testing of Grind Building baghouses and Grit Blast Unit baghouse to demonstrate system removal efficiency.
February 2014	Purchased a 55-gallon drum industrial vacuum with filtered exhaust to reduce the use of brooms and compressed air in the Grind Building.
December 2014	Enhanced housekeeping measures (sweeping).
March 2015	Installed HEPA filter systems on all three baghouses
March 2015	Purchased Cyclone Unit. Implemented the daily deep cleaning of the facility's exposed surface areas to reduce fugitive emissions and track-out.
April 2015	Performed stack testing of grind building exhaust to document substantial reduction in emissions
September 2016	Installed plastic strips on all roll-up doors and/or access entrances on the west side of the forge building to assist in keeping any airborne metal dust from escaping the building.
January 2017	Torit Units (North/Center/South) received a full-service maintenance and all filter cartridges were replaced
January 2017	Improvement to the ductwork inside the grinding room, and added air pick-up points by relocating unused vents to the top portion of the grinding building for a better airflow throughout the building. Additionally, the large hoods vent top slot opening were made smaller to increase the flow intake.
May 2017	Installed the interlock door on the east door of the grinding building to minimize any potential fugitive metal dust and metallic odor from escaping the grinding building.
May 2017	Added additional plastic strips to the inspection/loading dock building.

Date	Actions Taken
June 2017	Performed a full-services maintenance, and all HEPA and pre-filters (North/Center/South) were replaced
June 2017	Began monthly dry sweeping of portions of Vermont Avenue, Jefferson Street, and Adams Street to reduce fugitive dust
July 2017	Began semi-annual wet-cleaning/HEPA vacuuming of the grinding building rooftop to reduce fugitive dust
August 2017	Installed equipment to continuously monitor pressure drop across each opening into the Grind Building
November 2017	Began construction of carbon filtration units in series with the HEPA on all three Grind Building baghouses (estimated completion in December 2017)

Exhibit B

Risk Reduction Plan for Aerocraft Heat Treating Co., Inc.

(SCAQMD Facility ID No. 23752)

JUNE 13, 2017

ToxStrategies

Innovative solutions
Sound science

AEROCRAFT

HEAT TREATING CO., INC.

BY HAND DELIVERY

June 13, 2017

Jillian Wong Ph.D.
Planning and Rules Manager
Planning, Rule Development & Area Sources
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765-4182

Re: Aerocraft Heat Treating Co., Inc.
Rule 1402 Risk Reduction Plan

Dear Dr. Wong:

By letter dated December 14, 2016, the South Coast Air Quality Management District (District) designated Aerocraft Heat Treating Co., Inc. (Aerocraft) as subject to the Potentially High Risk Facility requirements under Rule 1402(g). While Aerocraft does not believe that it poses a high risk, the enclosed materials address our obligations under Rule 1402(g)(4)(A) to submit a Risk Reduction Plan (RRP) to the District by June 13, 2017. This letter and the attached report are our timely response to this requirement.

As you will see, our planned measures result in a substantial reduction in emissions and risk. Although we disagree with the characterization of the risk posed by our facility, we agree that it is beneficial to find ways to minimize emissions resulting from our operations. Even with the very conservative assumptions incorporated into the District's risk assessment process, implementation of our RRP will reduce the risk posed by Aerocraft to a level orders of magnitude below the action level (the RRP results in an estimated maximum individual cancer risk of 0.0295 in one million as compared to the action level of 25 in one million). Many of these risk reduction measures have already been implemented. We anticipate that all outstanding reduction measures can be completed by January 2019. This is well in advance of the deadline imposed by Rule 1402(i)(2) which requires that the RRP be fully completed within two years of the date that the RRP is approved by the District. We will promptly inform your staff if anything occurs that could call into question our ability to meet that January 2019 completion date.

AEROCRAFT
HEAT TREATING CO., INC.

Please let me know if you have any questions about the enclosed Rule 1402 Risk Reduction Plan.

Sincerely,

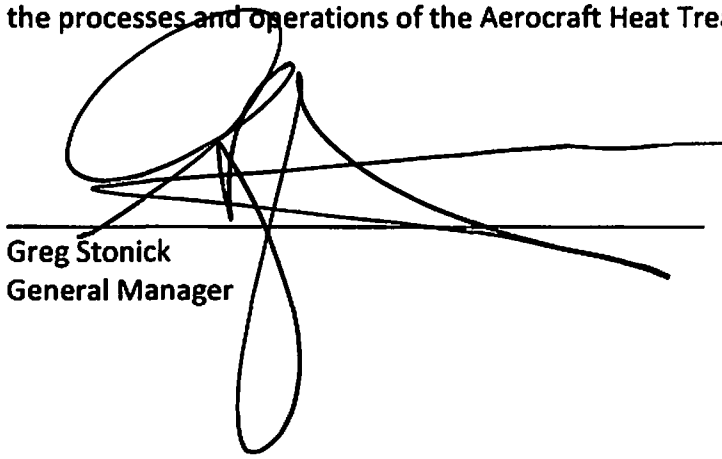
Greg Stonick
General Manager

Attachments

cc (by email):
James Wright
Deb Proctor
Peter Serrurier
Tom Wood

CERTIFICATION

I certify that this Risk Reduction Plan meets the requirements for such plans set forth in South Coast Air Quality Management District Rule 1402(f)(3) and that I am officially responsible for the processes and operations of the Aerocraft Heat Treating Company in Paramount, California.



Greg Stonick
General Manager

6/13/17
Date

Risk Reduction Plan for Aerocraft Heat Treating Co., Inc.

(SCAQMD Facility ID No. 23752)

JUNE 13, 2017

PREPARED FOR:
Aerocraft Heat Treating Co., Inc.
15701 Minnesota Avenue
Paramount, California

PREPARED BY:
ToxStrategies, Inc.
20532 El Toro Road
Suite 206
Mission Viejo, California

Deborah Proctor
Principal Health Scientist

Table of Contents

Executive Summary

As requested by the South Coast Air Quality Management District (SCAQMD) in a letter dated December 14, 2016, a Risk Reduction Plan (RRP) has been prepared for the Aerocraft Heat Treating Co., Inc., facility (Aerocraft). This RRP demonstrates that Aerocraft's risk reduction measures, many of which were implemented months ago, will reduce the facility's estimated residential risk at maximum production to 0.0295 in one million which is well below the action level of 25 in one million.

Aerocraft is located at 15701 Minnesota Avenue in Paramount, California (SCAQMD Facility ID No. 23752). In their letter, the SCAQMD designated Aerocraft as a potentially high-risk-level facility under SCAQMD Rule 1402 and required preparation of an RRP within 180 days of receipt of the letter. The letter also requested that an Air Toxics Inventory Report for 2016 be submitted within 150 days, and a Health Risk Assessment (HRA) report within 180 days. An Air Toxics Inventory Report for facility emissions in 2016 (2016 ATIR) was prepared and submitted on May 16, 2017. The 2016 ATIR serves as the basis for estimating potential exposure in the HRA which is being submitted concurrently under separate cover. Current and future facility operations are and will be significantly different from those in 2016.

Aerocraft is a commercial heat treater of steel, titanium, and high-temperature materials. Founded in 1959, Aerocraft processes forgings, castings, bar, plate, and rough-machined parts. The process requires heating metal to temperatures from 450 to 2250 ºF for 2 to more than 24 hours, to achieve specific alloy properties. In 2016, heated parts were cooled in a variety of ways, including oil quench, water quench, outdoor fan cool,[1] ambient cool, and oven cool. Parts are moved around the facility on large stainless-steel racks, which are repaired and welded on site. Furnaces were housed in four buildings; only two of the four buildings currently have operating furnaces. Limited grinding operations are also performed as part of inspecting treated parts, and a plasma arc cutter was used periodically to build and repair heat-treat racks.

Aerocraft has already implemented numerous risk reduction measures, which have resulted in reduced emissions from the facility. Furthermore, additional risk reduction measures are planned, which include building enclosures and permanent baghouses equipped with HEPA filtration.

This risk reduction plan uses the data available from the ATIR process and the control measures discussed herein to estimate the levels of exposure for future conditions when the facility is operating at a higher production level than current conditions. Specifically, this plan evaluates emissions from four or five furnaces, operating continuously, in each of the three buildings (total of 14 furnaces in Buildings 1, 2, and 3, see Table 2 for details). To ensure that emissions are captured effectively, all three buildings will be certified as permanent total enclosures (PTEs) by EPA Method 204, and will be equipped

[1] Outdoor fan cool is no longer performed at Aerocraft.

with a permanent baghouse with HEPA filtration. As specified by SCAQMD, the future permanent baghouses will meet SCAQMD's T-BACT (best available control technology for toxics) requirements. T-BACT for the control of hexavalent chromium emissions is 99.97% control efficiency @ 0.3 μm.

Air dispersion modeling based on the risk reduction measures shows significant reduction in future risk surrounding the facility as a result of the measures outlined in this RRP. Specifically, the predicted concentration at the maximum exposed individual resident (MEIR) ($5.4x10^{-8}$ $\mu g/m^3$) results in an estimated risk of 0.0295 in one million ($0.0295x10^{-6}$), which is well below the action level of $25x10^{-6}$.

1 Introduction

On behalf of Aerocraft Heat Treating Co., Inc. (Aerocraft), ToxStrategies, Inc. (ToxStrategies), has prepared this risk reduction plan (RRP) for the Aerocraft facility located at 15701 Minnesota Avenue, in Paramount, California (SCAQMD Facility ID No. 23752). In a letter dated December 14, 2016, SCAQMD designated Aerocraft as a potentially high-risk-level facility under SCAQMD Rule 1402 and required preparation of an RRP within 180 days of receipt of the letter. The letter also requested that an Air Toxics Inventory Report for 2016 be submitted within 150 days, and a Health Risk Assessment report within 180 days. An Air Toxics Inventory Report for facility emissions in 2016 (2016 ATIR) was prepared and submitted on May 16, 2017. The 2016 ATIR serves as the basis for estimating potential exposure in the risk assessment, although current and future facility operations are and will be significantly different from those in 2016. In preparing the 2016 ATIR, Aerocraft worked closely with District staff to identify an approach that best characterizes emissions from the unique sources that constitute our facility. Due to the complex nature of the emissions and the limited time available, many assumptions were made that likely cause the 2016 ATIR to overstate actual 2016 emissions. If the 2016 ATIR overestimates 2016 emissions, then the risk estimates presented in the HRA, and that form the basis for this RRP, will be similarly overestimated. As a result, while the risk estimates underlying this RRP can be used to demonstrate the relative decrease in risk associated with the existing and proposed site improvements, they are not necessarily an accurate portrayal of the actual risk posed by the facility in 2016. The Heath Risk Assessment (HRA) is being submitted concurrently under separate cover.

1.1 Facility Operations

Aerocraft is a commercial heat treater of steel, titanium, and high-temperature materials. Founded in 1959, Aerocraft processes forgings, castings, bar, plate, and rough-machined parts. Aerocraft provides services for engine and structural components relating to aircraft manufacture and maintenance. In 2016, operations were performed in 17[2]

[2] Aerocraft had 18 furnaces in 2016, but Furnace 13 in Building 1 has not been used in more than 13 years.

custom-built, batch-type, gas-fired furnaces with temperature ranges from 450 °F to 2250 °F. In 2016, the furnaces were located throughout four main operations buildings (Buildings 1–4). Currently, only a few furnaces are operated in Buildings 2 and 3, and the furnaces in Buildings 1 and 4 have been taken out of service. General practice is to place parts on racks constructed of stainless steel, which are placed into the furnaces along with the metals to be treated. The treated parts and racks are then cooled in one of five ways: submerged in an oil-quench tank, submerged in a water-quench tank, fan cooled, oven cooled, or ambient air cooled. In 2016, the facility operated three water-quench tanks, two oil-quench tanks, and one fan cooling station. Fan-cool operations are not occurring currently, and water quench operations are limited. Aerocraft also used a caustic tank to remove oil from parts after oil quench. The water-quench tanks were cooled by direct contact in cooling towers, and the return discharge was reintroduced into the cooling bath. The direct contact cooling towers for the water quench tank are no longer in use. The oil-quench tank was cooled by heat exchangers, with indirect cooling from cooling towers using municipal water. A small wet sweeper/vacuum vehicle is used to mitigate dust from the various processes. In separate buildings across the street, grinding of treated parts to check for hardness, and plasma cutting to build and repair racks, also occurred. Plasma cutting has not been performed since June 2016; however, typically, it has only been used intermittently to repair and build racks and did not pose a significant risk in 2016. Aerocraft currently conducts welding to repair the stainless-steel racks. Several natural gas-fired water and space heaters are located throughout the facility.

1.2 Completed Risk Reduction Measures

Aerocraft has taken numerous risk reduction measures since 2016, including reducing operations, removing furnaces from Buildings 1 and 4, enclosing Building 2, adding exhaust ports and two baghouses to Building 2, and taking other actions that are documented in the Early Risk Reduction Report (see Attachment A). Therefore, current conditions are very different from those modeled for 2016 for the HRA. As described in the HRA, the concentrations measured by SCAQMD at monitors near Aerocraft are significantly lower than in 2016.

2 Risk Characterization

2.1 HRA Based on 2016 Conditions

Given the modifications to the facility and operating procedures, the HRA presents an assessment of conditions that do not currently exist. Aerocraft was required to prepare an HRA that reflects estimated impacts associated with the emission rates that occurred in 2016. Current conditions are such that emissions are significantly lower than 2016 emissions. Based on an assessment of 2016 conditions,

Table 1 presents cancer risk and hazard indices for key locations.

Table 1. Cancer risk, acute and chronic hazard indices, and locations for the MEIR, MEIW, and PMI

Location	Potential Health Effects	Value	Receptor ID	UTM E (m)	UTM N (m)
Maximum exposed individual resident (MEIR)	Chronic non-carcinogenic hazard index	0.0918	5135	392200	3750700
	Acute non-carcinogenic hazard index	1.2	5135	392200	3750700
	Cancer risk	8.1E-04	5135	392200	3750700
Maximum exposed individual worker (MEIW)	Chronic non-carcinogenic hazard index	0.12	4895	392050	3750600
	8-hour. Chronic non-carcinogenic hazard index	0.0024	4895	392050	3750600
	Acute non-carcinogenic hazard index	1.7	5074	392150	3750700
	Cancer risk	1.4E-04	4895	392050	3750600
Off-site point of maximum impact (PMI)	Chronic non-carcinogenic hazard index	0.52	17	392081	3750679
	Acute non-carcinogenic hazard index	2.9	34	392175	3750677
	Cancer risk	4.7E-03	17	392081	3750679

UTM E = Universal Transverse Mercator coordinate system East

UTM N = Universal Transverse Mercator coordinate system North

3 Sources Requiring Risk Reduction

3.1 Identification of Each Source for Risk Reduction to Achieve a Facility-Wide Risk below Rule 1402 Action Risk Levels

Aerocraft has already expended considerable effort to identify sources of hexavalent chromium emissions and to implement modifications to reduce emissions. These changes, some of which are already complete, will reduce facility emissions such that modeled future risk beyond the fence line is substantially less than the action level.

Based on the results of the HRA, emissions of hexavalent chromium from the four buildings and rack welding operations are the primary sources that result in risks and

hazard indices exceeding SCAQMD's action levels ($2.5x10^{-5}$). The primary source of hexavalent chromium within the buildings is emissions from the furnaces. In 2016, 17 furnaces operated in Buildings 1–4. All other sources and chemicals resulted in predicted risks and hazard indices below the action levels, including emissions from plasma cutting operations.

4 Completed Early Risk Reduction Measures

Aerocraft has implemented numerous measures to reduce hexavalent chromium concentrations measured at monitoring stations near the facility. As discussed in Section 1.2, the measures taken by Aerocraft have proved effective, as demonstrated by the decreased concentrations of hexavalent chromium recently measured at the monitoring stations near Aerocraft, as compared to those measured in 2016.

Measures already implemented are summarized in the Revised Early Action Risk Reduction Plan dated March 13, 2017 (revised May 4, 2017) (Attachment A) and are presented below.

4.1 Risk Reduction Measure # 1: Clean grinding building

Aerocraft hired a third-party contractor to pressure wash and clean the Grinding Building/area (formally known as the Inspection Department).

Completion date: November 28, 2016

4.2 Risk Reduction Measure # 2: Discontinue dry sweeping

Aerocraft discontinued the use of dry sweeping and began using a wet mobile sweeper daily across the entire facility.

Completion date: November 30, 2016

4.3 Risk Reduction Measure # 3: Limit use of compressed air for non-essential activities

Aerocraft discontinued the use of compressed air for non-essential processing activities.

Completion date: December 2, 2016

4.4 Risk Reduction Measure # 4: Grinding Building enclosure

Aerocraft installed plastic flaps and enclosed the Grinding Building/area (formally known as the Inspection Department).

Completion date: December 5, 2016. Attachment B contains documentation of Total Permanent Enclosure of the grinding building.

4.5 Risk Reduction Measure # 5: Clean fan-cool area

Aerocraft cleaned and HEPA vacuumed the fan-cool processing area.

Completion date: December 6, 2016.

4.6 Risk Reduction Measure # 6: Clean storage racks

Aerocraft cleaned and HEPA vacuumed the heat-treat (XYZ) storage racks.

Completion date: December 6, 2016. Aerocraft no longer uses heat-treat storage racks. Areas where parts are stored are wet cleaned and HEPA vacuumed daily.

4.7 Risk Reduction Measure # 7: HEPA vacuum furnaces

Aerocraft HEPA vacuumed all processing heat-treat furnaces.

Completion date: December 9, 2016.

4.8 Risk Reduction Measure # 8: Clean Heat-Treating department

Aerocraft hired a third-party contractor to pressure wash and clean the Heat-Treating department.

Completion date: December 9, 2016.

4.9 Risk Reduction Measure # 9: Routine HEPA vacuuming

Aerocraft implemented the use of HEPA vacuum cleaning after each shift in areas where fugitive metal dust has the potential to accumulate.

Completion date: December 15, 2016 and ongoing.

4.10 Risk Reduction Measure # 10: Scarify facility floor

Aerocraft hired a third-party contractor to scarify the facility floor(s) in various processing areas.

Completion date: December 21, 2016.

4.11 Risk Reduction Measure # 11: Employee training

Training was conducted for all affected employees on housekeeping and fugitive metal dust minimization (emphasizing the prohibition of compressed air and dry/broom sweeping).

Completion date: First initiated January 6, 2017, and training of employees is ongoing.

4.12 Risk Reduction Measure # 12: Housekeeping SOP

Developed a standard operating procedure (SOP) specific to housekeeping and fugitive dust mitigation.

Completion date: January 9, 2017.

4.13 Risk Reduction Measure # 13: Clean plasma cutter area

Aerocraft cleaned the maintenance building area that houses the plasma cutter and HEPA vacuumed the plasma cutter equipment.

Completion date: January 13, 2017.

5 Supplemental Early Risk Reduction Measures

Aerocraft has implemented additional measures to reduce hexavalent chromium concentrations, which are summarized in the Revised Early Action Risk Reduction Plan dated March 13, 2017 (revised May 4, 2017), and presented below.

5.1 Risk Reduction Measure # 14: Enclosures on Buildings 1 & 2

Aerocraft enclosed heat-treat Buildings 1 and 2 to create permanent total enclosures and installed baghouses as controls on the building ventilation exhaust.

Completion date: February 8, 2017. Documentation of Building 2 as a PTE is provided in Attachment B. There are no longer operations in Building 1, and the temporary baghouse has been removed.

5.2 Risk Reduction Measure # 15: Wind breaks

Aerocraft installed wind breaks within the facility boundaries between Buildings 1 and 2, to reduce the potential for dust resuspension.

Completion date: February 8, 2017.

5.3 Risk Reduction Measure # 16: Monitoring of water-quench tanks

Monthly monitoring of water-quench tank hexavalent chromium levels is conducted, and the water is periodically dosed with ferrous sulfate to reduce hexavalent chromium to trivalent chromium. The most recent sample of water from Quench Tank #2, in Building 2, was collected June 7, 2016, after treatment with ferrous sulfate; the sample contained non-detectable levels of hexavalent chromium (limit of detection was 1 ppb).

Completion date: Ongoing

5.4 Risk Reduction Measure # 17: Discontinue outdoor fan cooling

In the past, heated parts were cooled outdoors using fans. This practice has been permanently discontinued. Going forward, a small portion of heat-treated parts are expected to require fan cooling, which will be conducted only indoors in one of the buildings. Doors and other building openings of the building will remain closed throughout any future fan cooling operation. The closed building envelope will mitigate emissions that might be associated with the operation of fans. Furthermore, the floor surface in the area of the fans will be cleaned using HEPA vacuuming daily. HEPA vacuuming in general is described above as a separate risk reduction measure.

Completion date: Outdoor fan cooling operations were stopped as of January 16, 2017. Fan cooling within an enclosed building will commence as the business need arises. No start or completion date for the possible future use of fan cooling is currently available.

5.5 Risk Reduction Measure # 18: Reduced forklift traffic

Aerocraft has minimized the level of forklift traffic moving from facility buildings on the west side of Minnesota Avenue to buildings on the east side of Minnesota Avenue.

Completion date: Mid-December 2016.

5.6 Risk Reduction Measure # 19: Cleaning of cooling towers

The water tank cooling towers, which are in Buildings 1 and 2, were cleaned to remove residual hexavalent chromium in the water. The inner parts of the cooling towers were replaced to remove Cr(VI) from surfaces, and the outside surfaces were cleaned.

Completion date: January 27, 2017 Water tank cooling towers were taken out of service on February 13, 2017.

5.7 Risk Reduction Measure # 20: Building 3 curtains

Aerocraft added curtains to Building 3 to reduce air flow.

Completion date: Curtains were installed on February 8, 2017.

5.8 Risk Reduction Measure # 21: Compressed air use limited to wet or enclosed environments

Use of compressed air for essential processing activities was limited to either wet activities or dry activities conducted in an enclosure.

Completion date: Ongoing.

5.9 Risk Reduction Measure # 22: Cleaning with air pollution controls

Air pollution controls will be operated while conducting housekeeping or any cleaning activities in buildings with air pollution controls.

Completion date: Ongoing.

5.10 Risk Reduction Measure # 23: Annual furnace cleaning

Clean interior of each operating furnace a minimum of annually.

Completion date: Ongoing.

5.11 Risk Reduction Measure # 24: Thermal imaging

Thermal imaging will be performed on the outside of Buildings 1 and 2 during a period of normal operation to ensure that the buildings are leak free.

Completion date: May 26, 2017 (Building 2), and within 30 days of resuming normal/proposed operations in Building 1.

5.12 Risk Reduction Measure # 25: Temporary baghouses with stack extensions

Operate baghouses with stack extensions.

Completion date: Ongoing (Building 2). Within 30 days of next period of normal operations (Building 3). A temporary baghouse is currently being installed on Building 3, and completion is planned for July 2017.

5.13 Risk Reduction Measure # 26: Decommissioned furnaces in Buildings 1 and 4

Aerocraft is currently not operating any furnaces in Buildings 1 and 4. Once Building 1 is equipped with a permanent baghouse and HEPA filtration, furnace operations will resume. Building 4 will no longer have any furnace operations but will be used for storage and maintenance.

Completion date: Buildings 1 and 4 were decommissioned on February 18, 2017. The reopening of Building 1 will be based on business decisions, and the start and completion dates for this work are currently not known.

6 Evaluation and Specification of Available Risk Reduction Measures, and Proposed Schedule

Aerocraft proposes the following risk reduction measures to permanently reduce hexavalent chromium emissions from the facility while bringing operations to future expected production levels. The exact schedule for increasing production, and the start and completion of some of these measures, will be based on business decisions and is not currently known, as described below.

6.1 Risk Reduction Measure # 27: Permanent total enclosure of Buildings 1, 2, and 3

Aerocraft has installed a certified permanent total enclosure (PTE) on Building 2 (see Attachment B), an as-yet uncertified PTE on Building 1 and is preparing to install a PTE on Building 3. A permanent HEPA-equipped baghouse will be installed on Buildings 2 and 3. A Building 1 will be certified and a permanent HEPA-equipped baghouse will be installed when and if the building is ready to resume operations. Aerocraft will ensure that the vendor provides a baghouse/ HEPA system designed to achieve 99.97% control efficiency at 0.3 µm.

Table 2 provides additional information regarding the baghouses.

Building 1 is currently enclosed, but has not been certified as a permanent total enclosure because production operations are currently not occurring within that building. One component of this Risk Reduction Plan is that prior to operations resuming in Building 1, a new permanent baghouse (with HEPA filters) will be installed and the building certified as a permanent total enclosure by a qualified third party.

Building 2 is currently a PTE controlled by two temporary baghouses. A component of this Risk Reduction Plan is to install a new permanent baghouse (with HEPA filters) to replace the two temporary baghouses. Once the permanent baghouse is installed, the permanent total enclosure status of Building 2 will be recertified by a qualified third party.

A further component of this Risk Reduction Plan is to enclose heat-treating operations in Building 3. Building 3 will be enclosed and verified as a permanent total enclosure. A temporary baghouse is currently being installed on Building 3, with expected completion in July 2017. A permanent baghouse is expected to be installed on Building 3 by January 2019.

Table 2. Baghouse details

Building	Baghouse Flow Rate (cfm*)	Stack Dimension (ft)	Stack Height (ft)	Number of Furnaces in Building	Operating Schedule **
1	60,000	4.8	40	5	24 x 7 x 365
2	60,000	4.8	40	4	24 x 7 x 365
3	100,000	4.8	35	5	24 x 7 x 365

* cfm = cubic feet per minute

** Continuous planned operation throughout the year

With the conversion of Buildings 1, 2, and 3 to be permanent total enclosures, emissions from all furnace operations will be routed through permanent HEPA-equipped baghouses. Furthermore, all oil-quench or water-quench events will take place within a permanent total enclosure, because those quench tanks are in one of the three buildings.

Building 4 will no longer contain any furnaces and did not contain other equipment such as quench tanks or cooling towers. Building 4 will be used for storage and maintenance activities. Given the different use of Building 4, as compared to the other three buildings, it will not be equipped with a baghouse and is not considered a significant source of emissions.

Estimated completion date: Buildings 1 and 2 are already permanent total enclosures, although only Building 2 has been certified and Building 1 is currently not operating. The temporary baghouse units for both buildings will be replaced with a permanent system equipped with HEPA filters and both buildings certified (or recertified in the case of Building 2) as permanent total enclosures by January 2019. Building 3 will also be enclosed, controlled by a baghouse with HEPA filters and certified as a permanent total enclosure by January 2019.

6.2 Risk Reduction Measure # 28: Fan cooling limited to an enclosed building

In the past, heated parts were cooled outdoors using fans. This practice has been permanently discontinued. Going forward, a small portion of heat-treated parts will require fan cooling, and will be conducted only indoors, in Building 4. Doors or other

building openings will remain closed during the entirety of a fan-cooling operation. The closed building envelope will mitigate emissions that might be associated with the operation of fans. Furthermore, the floor of Building 4 in the area of the fans will be cleaned using HEPA vacuuming at the end of each day on which fan cooling is conducted. HEPA vacuuming in general is described above as a separate risk reduction measure.

Estimated completion date: Outdoor fan cooling has been permanently discontinued. Fan cooling within a closed Building 4 will commence as needed once the building is fully enclosed. The exact date for implementing these measures will be dictated by business decisions, and there is currently no planned start date for conducting indoor fan cooling.

6.3 Risk Reduction Measure # 29: Cooling towers converted to closed-loop water

The cooling towers servicing the water-quench tanks contained the same water as in the quench tanks in 2016. The use of a direct cooling loop for the water-quench tanks created the potential for hexavalent chromium drift from the cooling towers. The last water-quench cooling tower to be used was that in Building 2 and it has not been operated since February 13, 2017. These cooling towers have been removed from service and will be converted to closed-loop systems prior to returning to service. These upgrades will ensure that the water in the cooling towers will contact neither the water in the quench tanks nor any production parts. Therefore, such cooling towers can be located outdoors and will not emit hexavalent chromium.

Estimated completion date: The water-quench tanks have already been drained and cleaned and are being maintained as cleaned, as described in Section 5.3. Activities are in progress to convert all the water-quench tanks and associated cooling towers to closed-loop systems. The exact date for implementing these measures will be dictated by business decisions; no water-quench cooling tower will be used until it has been converted to a closed loop system (i.e., indirect cooling). There is currently no planned start date for use of any water-quench cooling tower.

6.4 Risk Reduction Measure # 30: Rack welding conducted with emissions controls

Rack welding is currently conducted in a minimally controlled environment, which does not sufficiently reduce releases of welding fumes into ambient air. Such activities will be moved to a space equipped with HEPA filtration (e.g., Maintenance Building which has HEPA filter of the plasma cutter, Building 1, or the Grinding Building).

Estimated completion date: December 2017.

6.5 Risk Reduction Measure # 31: Cleaning of heat-treat storage racks

Heat-treat storage racks were used in 2016 and had the potential to collect dust or debris from heat-treated parts. These racks are currently not being used (Risk Reduction measure 6). In the future, should it be necessary to use these racks, they will be subject to a cleaning program whereby they are HEPA vacuumed at least once daily when used. By cleaning the racks with a HEPA vacuum every day that the racks are used, the potential for dust that falls on the racks to become airborne is greatly reduced.

Estimated completion date: Already completed; part storage areas are currently being cleaned daily with HEPA vacuuming and storage racks are not currently being used.

The future risk reduction measures are summarized in Table 3.

Table 3. Summary of future risk reduction measures for Aerocraft

Measure Number	Measure	Details	Completion Date
27	PTE Building 1	Temporary Baghouse	Not applicable[1]
		Permanent Baghouse	To Be Determined[1]
	PTE Building 2	Temporary Baghouse	April 2017
		Permanent Baghouse	January 2019
	PTE Building 3	Temporary Baghouse	July 2017
		Permanent Baghouse	January 2019
28	Fan Cool in Building		To Be Determined[2]
29	Water Quench Closed Loop		To Be Determined[2]
30	Rack welding under HEPA filtration	Operation to be moved to Maintenance, Inspection or Building 2—all of which have HEPA filtration	December 2017
31	Cleaning heat-treat storage racks	Storage racks are not currently used	To Be Determined[2]

PTE = Permanent Total Enclosure

[1] Aerocraft does not currently plan to install a temporary baghouse on Building 1. A permanent baghouse will be installed when and if the building is ready to resume operations.

[2] These measures will be implemented prior to operating fan cool or water quench, or storing heat-treat parts on racks. The need for these operations will be dictated by business decisions, and a specific start and completion date cannot be determined at this time.

7 Estimation of Post-Implementation Risk

Risk reduction measures are planned for any future hexavalent chromium furnace emissions and the rack welding operations. The emissions for these sources were run through an air dispersion model consistent with the model used for the HRA (ToxStrategies, 2017). The predicted concentration at the MEIR ($5.4x10^{-8}$ $\mu g/m^3$) results in an estimated risk of 0.0295 in one million ($0.0295x10^{-6}$), which is well below the action level of $25x10^{-6}$ (see Attachment C for electronic modeling files).

7.1 Health Risk Assessment

To evaluate the potential off-site risks following implementation of risk reduction measures, an air dispersion model was run for the three main sources of hexavalent chromium emissions under planned future operating conditions: furnaces in Buildings 1, 2, and 3. In addition, rack welding operations were assumed to occur under HEPA-filter controls. Future planned operations assume that four to five furnaces will operate in each of Buildings 1–3 (i.e., a total of 14 furnaces) for 24 hours per day, seven days per week (Table 2). Emission rates from future furnace operations in each building were assessed using the maximum measured hexavalent chromium emission rate for a single furnace[3] from the stack testing performed in April 2017 (Appendix D of the ATIR; Associates Environmental, 2017). The maximum emission rate was used so that other operations with lower emission rates (e.g., empty furnace or non-chromium part, etc.) would be covered by the emission estimate and modeling. In this way, the operations at Aerocraft would not be limited. Tables 4 and 5 present the emission rates from controlled furnace and rack welding operations.

Table 4. Estimated emissions of hexavalent chromium from each building under planned future operating conditions

Building	Maximum Cr(VI) Emission Rate from Source Tests (lb/hour)	Number of Furnaces per Building	Cr(VI) Flow into Baghouse per Building (lb/hour)	HEPA Baghouse Control Efficiency	Controlled Emissions per Building (lb/hour)	Total Hours	Controlled Emissions per Building (lb/year)
1 and 3	1.76E-05	5	8.80E-05	99.97%	2.64E-08	8760	2.31E-04
2	1.76E-05	4	7.04E-05	99.97%	2.11E-08	8760	1.85E-04

[3] The maximum emission rate resulted from the low-temperature furnace operation when a chromium part was being heated.

Table 5. Estimated emissions of hexavalent chromium from rack welding under planned future operating conditions

Maximum Cr(VI) Emission Rate from Rack Welding (lb/year)	HEPA Baghouse Control Efficiency	Controlled Emissions (lb/year)
2.80E-02	99.97%	8.40E-06

8 References

Associates Environmental. 2017. South Coast Air Quality Management District Air Toxics Inventory Report covering Aerocraft Heat Treating Co., Inc., Paramount facility, Facility ID 023752, May.

ToxStrategies. 2017. Air Toxics Health Risk Assessment for Aerocraft (SCAQMD Facility ID No. 23752), June.

ATTACHMENT A

Early Action Risk Reduction Plan Dated March 13, 2017

EARLY ACTION RISK REDUCTION PLAN
SCAQMD Rule 1402(g)(2)

March 13, 2017
(Revised May 4, 2017)

Introduction

By letter dated December 14, 2016, the South Coast Air Quality Management District ("District") designated Aerocraft Heat Treating Co., Inc. ("Aerocraft") as subject to the Potentially High Risk Facility requirements under Rule 1402(g). While Aerocraft does not believe that it poses a high risk, it acquiesced in bregards to coverage under the program. Rule 1402(g)(2) requires that Aerocraft submit an Early Action Risk Reduction Plan ("Plan") to the District. This Plan was submitted to the District on March 13, 2017. District comments on the Plan were received by Aerocraft on April 26, 2017. This revised version of the Plan was prepared in response to the April comment letter.

Facility Information

Consistent with the requirements of Rule 1402(g)(2)(A)(i), the following facility information is being provided:

Name:	Aerocraft Heat Treating Co., Inc.
Address:	15701 Minnesota Ave. Paramount, CA 90723
SCAQMD Facility Identification No.:	023752

Identification of Key Health Risk Drivers

Rule 1402(g)(2)(A)(ii) requires that Aerocraft's Plan identify the devices or processes that are the key health risk drivers. Based on the company's process knowledge of likely causes of risk, Aerocraft believes that metal particulate will be the primary driver of acute and chronic risk. Metal particulate has not been historically associated with the heat treat furnaces and water quench systems, but based on samples taken in previous months we will focus our efforts in these areas. Therefore, this Plan has focused on measures that will reduce the direct emissions of metal particulate as well as fugitive emissions including emissions resulting from the re-suspension of metal particulate from on and off site sources.

Early Action Risk Reduction Measures and Schedule

Rule 1402(g)(2)(A)(iii) and (iv) require that Aerocraft's Plan identify "Risk reduction measure(s) that can be implemented by the owner or operator that includes but are not limited to procedural changes, process changes, physical modifications, and curtailments," and "A schedule for implementing the specified risk reduction measures." The remainder of this Plan addresses these two requirements.

On December 16, 2016, Aerocraft agreed to stipulate to a list of such early actions to reduce risk. Those actions, and their current implementation status, are provided below in Table 1.

Table 1. Initial List of Early Action Measures to Reduce Facility-Wide Risk

Location	Risk Reduction Measure	Date Completed
Grinding Building (Inspection Department)	Aerocraft hired a third party contractor to pressure wash and clean the Grinding building/area (formally known as the Inspection Department).	November 28th 2016
Entire Facility	Aerocraft discontinued the use of dry sweeping and began using wet mobile sweeper daily	November 30th 2016
Entire Facility	Aerocraft discontinued the use of compressed air for non-essential processing activities.	December 2nd 2016
Grinding Building (Inspection Department)	Aerocraft installed plastic flaps and enclosed the Grinding building/area (formally known as the Inspection Department).	December 5th 2016
Fan Cool	Aerocraft cleaned and HEPA vacuumed the fan cool processing area.	December 6th 2016
Heat Treating	Aerocraft cleaned and HEPA vacuumed the Heat Treat (XYZ) storage racks.	December 6th 2016
Heat Treating	Aerocraft HEPA vacuumed all processing Heat Treat furnaces	December 7th 2016 – December 9th 2016
Heat Treating	Aerocraft hired third party contractor to pressure wash and clean the Heat Treating department	December 9th 2016
Entire Facility	Aerocraft implemented the use of HEPA vacuum cleaning after each shift in areas where fugitive metal dust has the potential to accumulate	December 15th 2016
Entire Facility	Aerocraft hired a third party contractor to scarify the facility floor(s) in various processing areas	December 21st 2016 - present
Entire Facility	Training was conducted for all affected employees on housekeeping and fugitive metal dust minimization (emphasizing the prohibition of compressed air and dry/broom sweeping).	January 6, 2017
Entire Facility	Developed a SOP specific for housekeeping and fugitive dust mitigation.	January 9, 2017
Grinding Building (Inspection Department)	Aerocraft hired a third party to pressure wash and clean the maintenance building area that houses the plasma cutter	January 13, 2017

In addition to the measures in Table 1, Aerocraft has identified the supplementary measures identified in Table 2 to further reduce facility-wide risk. For those measures that have been completed, the completion date is provided; for those measures in the process of being completed, the anticipated completion date is provided.

Table 2. Supplementary List of Early Action Measures to Reduce Facility-Wide Risk

Location	Risk Reduction Measure	Date Completed of Expected to be Completed
Heat Treat Buildings 1 and 2	Aerocraft enclosed these buildings to create temporary total enclosures and installed baghouse controls on building ventilation exhaust	February 8, 2017

Location	Risk Reduction Measure	Date Completed of Expected to be Completed
Between Heat Treat Buildings 1 and 2	Installation of wind breaks within the facility boundaries to reduce potential for dust re-suspension	February 8, 2017
Water Quench System	Monthly monitoring of water quench tank Cr+6 levels and periodic dosing with ferrous sulfate to reduce Cr+6 to Cr+3	Ongoing
Forced Air Cooling	Forced air cooling of parts outside of a total enclosure was discontinued	Approximately January 15, 2017
Dust Trackout Minimization	Minimization of forklift traffic moving from portion of facility on west side of Minnesota Ave to portion of facility on east side of Minnesota Ave	Mid-December 2016
Heat Treat Buildings 1 and 2	Cleaning of cooling towers	January 27, 2017
Heat Treat Building 3	Added curtains to reduce air flow	February 8, 2017
Entire Facility	Use of compressed air for essential processing activities limited to either wet activities or dry activities conducted in an enclosure.	Ongoing
Entire Facility	Training of all new affected employees on housekeeping and fugitive metal dust minimization (emphasizing the prohibition of compressed air and dry/broom sweeping).	Ongoing
Plasma Cutter	HEPA vacuum cleaning of the area around the plasma cutter in the Grinding Building after each shift when the plasma cutter is used.	Ongoing
Entire Facility	Operate the air pollution controls while conducting housekeeping or any cleaning activities in buildings with air pollution controls.	Ongoing
Heat Treat Furnaces	Clean interior of each operating furnace a minimum of annually.	Ongoing
Heat Treat Buildings 1 and 2	Thermal imaging to be performed on the outside of building during a period of normal operation to ensure that the building is leak free	May 26, 2017 (Building 2) Within 30 days of next period of normal operations (Building 1)

Location	Risk Reduction Measure	Date Completed of Expected to be Completed
Heat Treat Buildings 1 and 2	Operate baghouses with stack extensions	Ongoing (Building 2) Within 30 days of next period of normal operations (Building 1)

The effectiveness of each of the measures identified above is being constantly assessed. If one or more measures do not appear to be reducing the potential for emissions, then the measure will be suspended after written notice to the District.

Aerocraft believes that the measures identified above will substantially reduce the potential for metal emissions from its processes. As metals are expected to be the predominant source of risk under the facility's Rule 1402 Health Risk Assessment, these measures are appropriately targeting metal dust emission sources.

ATTACHMENT B

Documentation of PTE of Inspection Building and Building 2

ENGINEERING TEST REPORT

AEROCRAFT HEAT TREATING INSPECTION BUILDING BAGHOUSE

Source Location:

Aerocraft Heat Treating
15701 Minnesota Ave
Paramount, California 90723

Test Date: February 15, 2017
Issue Date: March 8, 2017

Prepared for:

Aerocraft Heat Treating
15701 Minnesota Ave
Paramount, California 90723

Prepared by:

AirKinetics, Inc.
1308 S. Allec Street
Anaheim, California 92805
(714) 254-1945 Fax: (714) 956-2350
AKI No.: 14714

AirKinetics, Inc.
EMISSIONS CHARACTERIZATION AND TESTING SERVICES

March 8, 2017

Mr. Greg Stonick
Aerocraft Heat Treating
15701 Minnesota Ave
Paramount, California 90723

AirKinetics, Inc.
EMISSIONS CHARACTERIZATION
AND TESTING SERVICES

AKI No.: 14714

Dear Mr. Stonick:

AirKinetics, Inc. conducted emissions testing at Aerocraft Heat Treating in Paramount, California on February 15, 2017. Testing was performed on Inspection Building Baghouse. The test objective was to conduct Verification of A Permanent Total Enclosure. Test results are summarized in Table 1 and all supporting data are attached.

TABLE 1

PERMANENT TOTAL ENCLOSURE (PTE) RESULTS

Test Location	Average Differential Pressure (in. H_2O)	Satisfied PTE Limit of > 0.007 in. H_2O
Inspection Building Baghouse	0.0103	Yes

If you should have any questions concerning this test protocol, please do not hesitate to call me at (800) 899-3687.

Sincerely,

Morgan Nguyen
Project Supervisor

Attachment A – Field Data

ATTACHMENT A

FIELD DATA

EPA METHOD 204 - VERFICIATION OF A PERMANENT TOTAL ENCLOSURE

Aerocraft Heat Treating 3/6/17

Client	~~Carlton Forge Works~~	Job No.	14714
Plant Name	~~Carlton Forge Works~~ Aerocraft Heat Treating	Test Date.	2/15/2017
City/State	Paramount, CA	Tester Signature	
Sampling Location	Inspection Building Baghouse		

PTE # Inspection Building

Run No.	Time	ADM Reading (inches H2O)
M204-1	0 1142	-0.0093
	5 1147	-0.015
	10 1152	-0.0113
	15 1157	-0.0087
	20 1202	-0.0094
	25 1207	-0.0098
	30 1212	-0.0106
	35 1217	-0.0085
	40 1222	-0.0115
	Average	

PTE # _____

Run No.	Time	ADM Reading (inches H2O)
	45 1227	-0.0122
	50 1232	-0.0078
	55 1237	-0.0088
	60 1242	-0.0116
	Average:	-0.0103
	Average	

PTE # _____

Run No.	Time	ADM Reading (inches H2O)
	Average	

Reviewer

AirKinetics, Inc.

SOURCE TEST REPORT

AEROCRAFT HEAT TREATING BUILDING 2

Source Location:

Aerocraft Heat Treating
15701 Minnesota Ave
Paramount, California 90723
Facility ID: 023752

Test Date: April 26-28, 2017
Issue Date: June 13, 2017

Prepared for:

Aerocraft Heat Treating
15701 Minnesota Ave
Paramount, California 90723

Prepared by:

AirKinetics, Inc.
1308 S. Allec Street
Anaheim, California 92805
(714) 254-1945 Fax: (714) 956-2350
AKI No.: 14715B

AirKinetics, Inc.
EMISSIONS CHARACTERIZATION
AND TESTING SERVICES

June 13, 2017

Mr. Gregory Stonick
Aerocraft Heat Treating
15701 Minnesota Ave
Paramount, California 90723

AKI No.: 14715C

AirKinetics, Inc.
EMISSIONS CHARACTERIZATION
AND TESTING SERVICES

Dear Mr. Stonick:

AirKinetics, Inc. conducted source testing at Aerocraft Heat Treating facility in Paramount, California on April 26-28, 2017. Testing was performed on Building 2. The test objective was to conduct verification on Building 2 permanent total enclosure in accordance with EPA Method 204. Test Results are summarized in Table 1 and all supporting data are attached.

TABLE 1

PERMANENT TOTAL ENCLOSURE RESULTS

Parameter	Units	Results	Limit
Distance from NDO to Closest Emitting Point No NDO's Observed		5.52	>4
Ratio of Total Area (NDOs) to Surface Area of Enclosure	%	0.377	<5
Face Velocity[a]	Inches Water	-0.0426	>0.007[a]
All Access Doors Not Included in the NDOs are Closed During Normal Operations		Yes	
All Emission are Captured and Contained for Discharge Through Baghouse		Yes	

NDO – Natural Draft Opening

NA – No NDO's Observed

a – Face Velocity Alternative (a measurement of pressure differences was taken at North, South, and West Door and the Degrease Tank)

If you should have any questions concerning this test report, please do not hesitate to call me at (800) 899-3687

Sincerely,

Morgan Nguyen
Project Supervisor

ATTACHMENT

Test Date: April 26-28, 2017
Test Location: Aerocraft Bulidng 2 Baghouse 1 and 2
PERMANENT TOTAL ENCLOSURE

PROCESS	# OF NDO		Length/Diameter (in.) (A)	Width (in.) (B)	NDOs (sq. in.) ©	TOTAL NDOs (sq. in.) © x # of	Equivalent Diameters (in.) (D)
Degrease Tank	1	1	120	10	1200	1200.0	39.10
					TOTAL	1200.0 sq. in.	
						8.33 sq. ft.	

Where: © = (A) x (B)
© = π x ((A) /2)^2 for circular vent

1) Distance from Each NDO to the Nearest VOC Emitting Point

		Equivalent Diameters (in.) (D)	Distance to Nearest VOC Emitting Point (in.) (E)	Equivalent Diameters (F)	Limit
Degrease Tank	1	39.10	216	5.52	>4

Where: (F) = (E) / (D)
NA - Distance not applicable since there is no VOC emitting point.

2) Ratio of Total Area (NDOs) to Surface Area of Enclosure

	Total Area NDOs (sq. in.) (G)	Surface Area of Enclosure (sq. in.) (H)	Ratio of NDOs to Surface Area (%) (I)	Limit
Degrease Tank	1,200	3,823,488	0.0314	<5%

3) Face Velocity (Pressure Differences)

	Face Velocity (Inches H2O) (K)	Limit
	-0.0426	>0.007 in. H2O

4) All Access doors not included in the NDOs are closed during normal operations

5) All emissions are captured and contained for discharge through the baghouses.

EPA METHOD 204 - VERFICIATION OF A PERMANENT TOTAL ENCLOSURE

Client	Aerocraft Heat Treating	Job No.	14715
Plant Name	Aerocraft Heat Treating	Test Date.	4-24-17
City/State	Paramount, CA	Tester Signature	
Sampling Location	Degrease tank		

PTE # _____

Run No.	Time	ADM Reading (inches H2O)
A-B2 Degrease - M204-1	0:00	0.0320
	5:00	0.0412
	10:00	0.0374
	15:00	0.0386
	20:00	0.0423
	25:00	0.0389
	30:00	0.0419
	35:00	0.0442
	40:00	0.0372
	45:00	0.0361
	50:00	0.0389
	55:00	0.0378
	60:00	0.0391
	Average	0.0389

PTE # _____

Run No.	Time	ADM Reading (inches H2O)
A-B2 Degrease -M204-2	0:00	0.0369
	5:00	0.0314
	10:00	0.0372
	15:00	0.0386
	20:00	0.0423
	25:00	0.0453
	30:00	0.0389
	35:00	0.0413
	40:00	0.0368
	45:00	0.0394
	50:00	0.0382
	55:00	0.0371
	60:00	0.0414
	Average	0.0376

PTE # _____

Run No.	Time	ADM Reading (inches H2O)
A - B2 Degrease -M204-3	0:00	0.0468
	5:00	0.0415
	10:00	0.0446
	15:00	0.0423
	20:00	0.0382
	25:00	0.0389
	30:00	0.0372
	35:00	0.0432
	40:00	0.0387
	45:00	0.0371
	50:00	0.0467
	55:00	0.0394
	60:00	0.0368
	Average	0.0409

Reviewer CDR

EPA METHOD 204 - VERFICIATION OF A PERMANENT TOTAL ENCLOSURE

Client	Aerocraft Heat Treating	Job No.	14715
Plant Name	Aerocraft Heat Treating	Test Date.	4-26-17
City/State	Paramount, CA	Tester Signature	
Sampling Location	North Door		

PTE # _____

Run No.	Time	ADM Reading (inches H2O)
A-B2-M204-1	0:00	0.0458
A-B2 North-M204	5:00	0.0425
-1	10:00	0.0427
	15:00	0.0416
	20:00	0.0426
	25:00	0.0425
	30:00	0.0418
	35:00	0.0429
	40:00	0.0432
	45:00	0.0399
	50:00	0.0406
	55:00	0.0436
	60:00	0.0410
	Average	0.0424

PTE # _____

Run No.	Time	ADM Reading (inches H2O)
A-B2North-M204	0:00	0.0432
-2	5:00	0.0413
	10:00	0.0427
	15:00	0.0431
	20:00	0.0419
	25:00	0.0407
	30:00	0.0421
	35:00	0.0440
	40:00	0.0415
	45:00	0.0429
	50:00	0.0437
	55:00	0.0452
	60:00	0.0413
	Average	0.0425

PTE # _____

Run No.	Time	ADM Reading (inches H2O)
A-B2North-M204	0:00	0.0426
-3	5:00	0.0453
	10:00	0.0421
	15:00	0.0433
	20:00	0.0431
	25:00	0.0422
	30:00	0.0446
	35:00	0.0437
	40:00	0.0402
	45:00	0.0397
	50:00	0.0417
	55:00	0.0421
	60:00	0.0432
	Average	0.0426

Reviewer COR

EPA METHOD 204 - VERFICIATION OF A PERMANENT TOTAL ENCLOSURE

Client	Aerocraft Heat Treating	Job No.	14715
Plant Name	Aerocraft Heat Treating	Test Date.	4-27-17
City/State	Paramount, CA	Tester Signature	
Sampling Location	South Door		

PTE # _____

Run No.	Time	ADM Reading (inches H2O)
A-B2South-M204 -1	0:00	0.0496
	5:00	0.0470
	10:00	0.0457
	15:00	0.0450
	20:00	0.0465
	25:00	0.0451
	30:00	0.0449
	35:00	0.0453
	40:00	0.0460
	45:00	0.0454
	50:00	0.0467
	55:00	0.0475
	60:00	0.0476
	Average	0.0461

PTE # _____

Run No.	Time	ADM Reading (inches H2O)
A-B2South-M204 -2	0:00	0.0473
	5:00	0.0484
	10:00	0.0459
	15:00	0.0443
	20:00	0.0452
	25:00	0.0477
	30:00	0.0487
	35:00	0.0462
	40:00	0.0467
	45:00	0.0451
	50:00	0.0468
	55:00	0.0471
	60:00	0.0482
	Average	0.0467

PTE # _____

Run No.	Time	ADM Reading (inches H2O)
A-B2South-M204-3	0:06	0.0413
	5:00	0.0482
	10:00	0.0493
	15:00	0.0476
	20:00	0.0485
	25:00	0.0471
	30:00	0.0464
	35:00	0.0467
	40:00	0.0445
	45:00	0.0471
	50:00	0.0474
	55:00	0.0468
	60:00	0.0482
	Average	0.0469

Reviewer COR

EPA METHOD 204 - VERFICIATION OF A PERMANENT TOTAL ENCLOSURE

Client	Aerocraft Heat Treating	Job No.	14715
Plant Name	Aerocraft Heat Treating	Test Date.	4-28-17
City/State	Paramount, CA	Tester Signature	
Sampling Location	West Door		

PTE # _____

Run No.	Time	ADM Reading (inches H2O)
A-B2West-M204 -1	0:00	0.0437
	5:00	0.0434
	10:00	0.0430
	15:00	0.0410
	20:00	0.0436
	25:00	0.0394
	30:00	0.0418
	35:00	0.0412
	40:00	0.0427
	45:00	0.0411
	50:00	0.0422
	55:00	0.0415
	60:00	0.00432
	Average	0.0421

PTE # _____

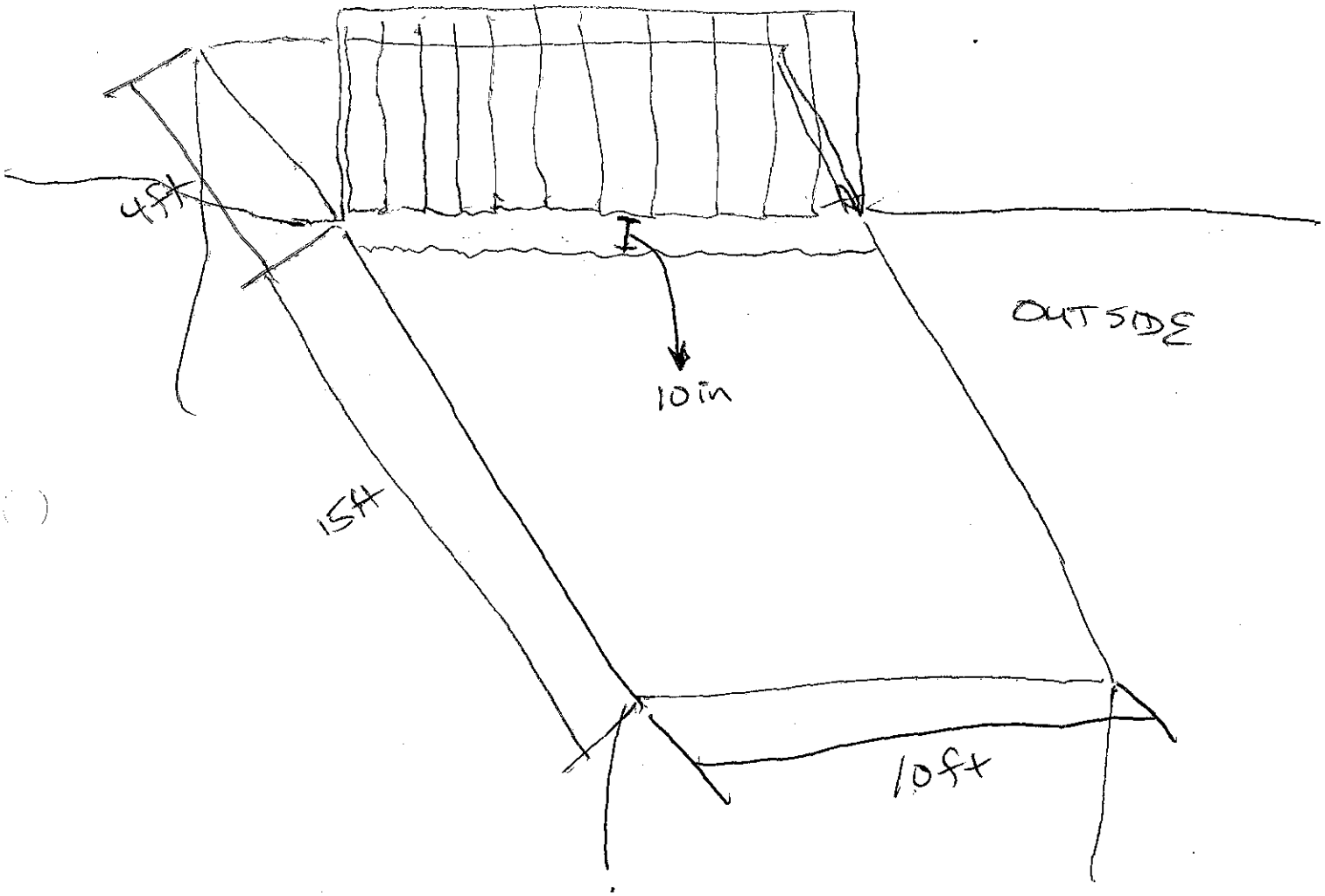
Run No.	Time	ADM Reading (inches H2O)
A-B2West-M204 -2	0:00	0.0421
	5:00	0.0437
	10:00	0.0432
	15:00	0.0431
	20:00	0.0427
	25:00	0.0426
	30:00	0.0415
	35:00	0.0421
	40:00	0.0418
	45:00	0.0407
	50:00	0.0413
	55:00	0.0409
	60:00	0.0432
	Average	0.0422

PTE # _____

Run No.	Time	ADM Reading (inches H2O)
A-B2West-M204 -3	0:00	0.0431
	5:00	0.0426
	10:00	0.0403
	15:00	0.0414
	20:00	0.0423
	25:00	0.0427
	30:00	0.0415
	35:00	0.0437
	40:00	0.0448
	45:00	0.0462
	50:00	0.0413
	55:00	0.0427
	60:00	0.0431
	Average	0.0427

Reviewer CDR

ENCLOSURE

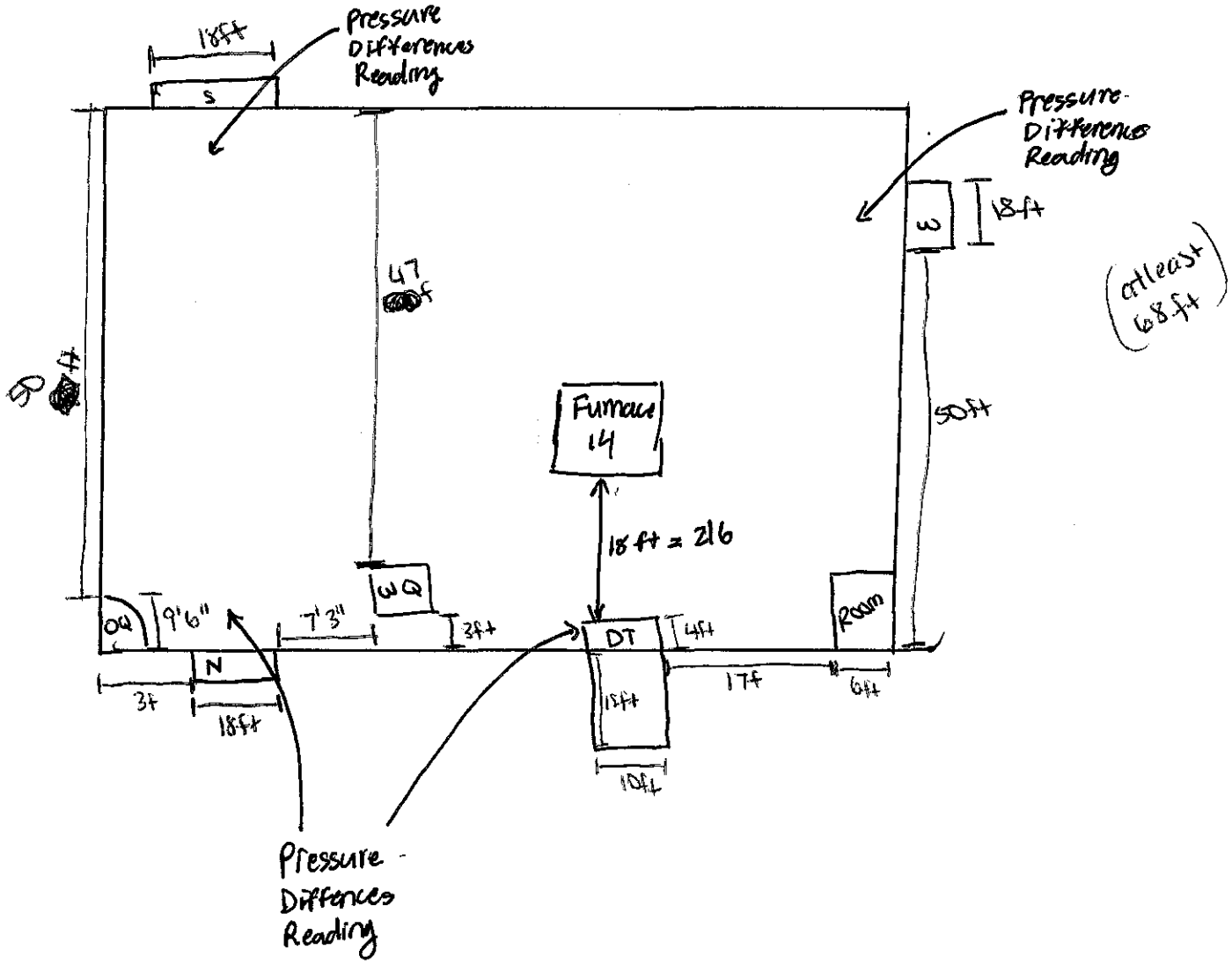


DEGREASER TANK DIAGRAM

$= 10'' \times 120'' = 1200\ in^2$

$NDO = 1200\ in^2$

NDO = 1200 in²


18ft
S
Pressure Differences Reading
Pressure Differences Reading
W
18ft
47
50ft
(atleast 68ft)
50ft
Furnace 14
18ft = 216
WD
3ft
OD
9'6"
7'3"
DT
4ft
Room
N
3ft
18ft
17ft
6ft
15ft
10ft
Pressure Differences Reading

Catalina Del Real

om: Ruiz, Juan <jruiz@dicksontesting.com>
ent: Tuesday, May 23, 2017 12:38 PM
To: Catalina Del Real
Cc: Jason Mai; Morgan Nguyen; Tony Wong
Subject: RE: Dimensions of Building 2 (AKI No.: 14715B)

Hi Catalina,

Building 2
L: 120'
W: 65'

Thanks,

Juan Carlos Ruiz
EHS Coordinator
Office: (562) 862-8378 x332
Cell: (562) 412-2434
jruiz@dicksontesting.com

AEROCRAFT HEAT TREATING CO., INC.

DICKSON TESTING COMPANY, INC

From: Catalina Del Real [mailto:DelRealC@airkineticsinc.com]
Sent: Monday, May 22, 2017 8:20 AM
To: Ruiz, Juan <jruiz@dicksontesting.com>
Cc: Jason Mai <maij@airkineticsinc.com>; Morgan Nguyen <nguyenm@airkineticsinc.com>; Tony Wong <wongt@airkineticsinc.com>
Subject: FW: Dimensions of Building 2 (AKI No.: 14715B)

Hi Carlos

Would you be able to provide me with the dimensions of Building 2 from your facility (refer to dimensions desired below)? I need this for the PTE and the final report is due to the district by this Friday so please let me know as soon as you can. I would greatly appreciate it.

Thank you,

Catalina Del Real

From: Catalina Del Real
Sent: Thursday, May 18, 2017 11:43 AM
To: 'jruiz@dicksontesting.com'
Cc: Morgan Nguyen (nguyenm@airkineticsinc.com); Jason Mai (maij@airkineticsinc.com)
Subject: Dimensions of Building 2 (AKI No.: 14715B)

Catalina Del Real

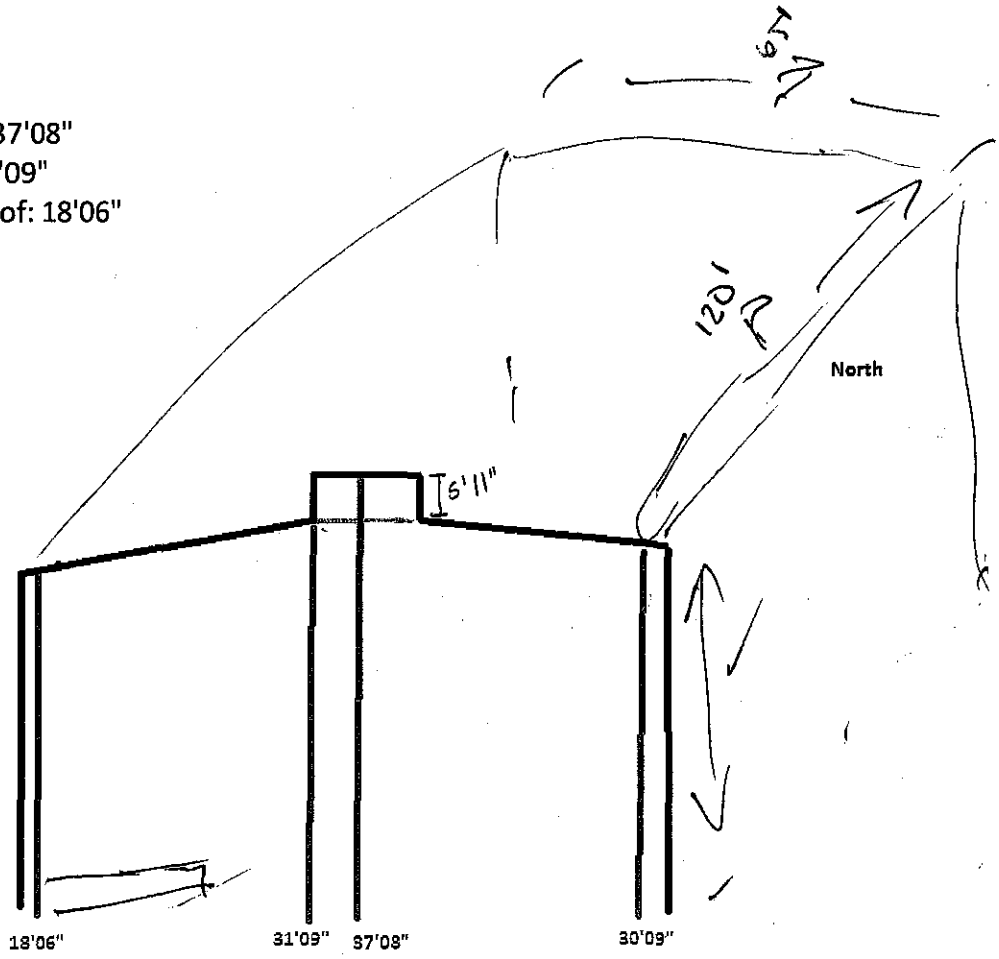
From: Ruiz, Juan <jruiz@dicksontesting.com>
Sent: Monday, May 22, 2017 9:09 AM
To: Catalina Del Real
Cc: Jason Mai; Morgan Nguyen; Tony Wong
Subject: RE: Dimensions of Building 2 (AKI No.: 14715B)

Catalina,

Please see below. I have also included a rough sketch showing the dimension. I will work on getting L and W.

Thanks,

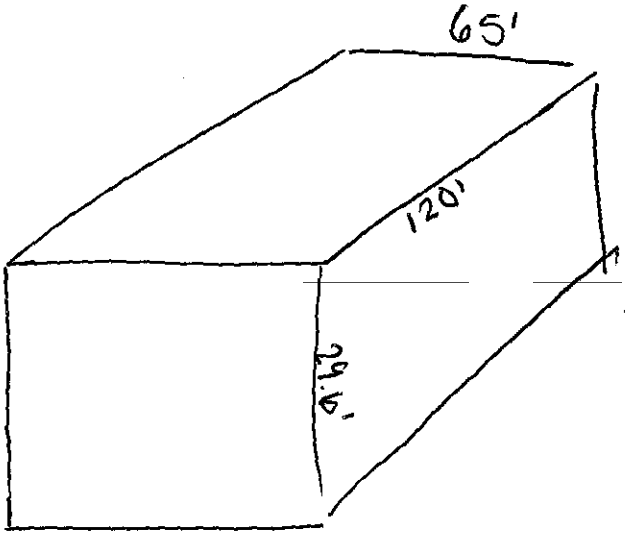
Building 2:
Top of Doghouse: 37'08"
Top of Building: 31'09"
South section of roof: 18'06"
North Side: 30'09"



< 5% NDU/Surfacer

25'x50'x150' ~~11'x~~ 120x10 = 1200 in²
< 10 ft²

Juan Carlos Ruiz
EHS Coordinator
Office: (562) 862-8378 x332
: (562) 412-2434
jruiz@dicksontesting.com



Height

222"
381"
452"
369"

Avg

356" → 29.6 ft

Total SA

$2(29.6 \times 120) = 7104\ ft^2$

$2(29.6 \times 65) = 3848\ ft^2$

$2(65 \times 120) = \cancel{15,600\ 7800}\ ft^2$

$\cancel{18,752}\ ft^2$

26552

NDO

$10" \times \cancel{120"\ 1200"} = 1200\ in^2$

$= 8.33 ft^2$

$$\text{Ratio} = \frac{8.33 ft^2}{\cancel{18,752}\ 26552} \times 100 = \cancel{0.04444\%}\ 0.0314\%$$

Total Surface Area (ft^2) = 26,552

(inches^2) = 3,823,488

ATTACHMENT C

Electronic Files for Air Dispersion Modeling and Risk Assessment

Exhibit C

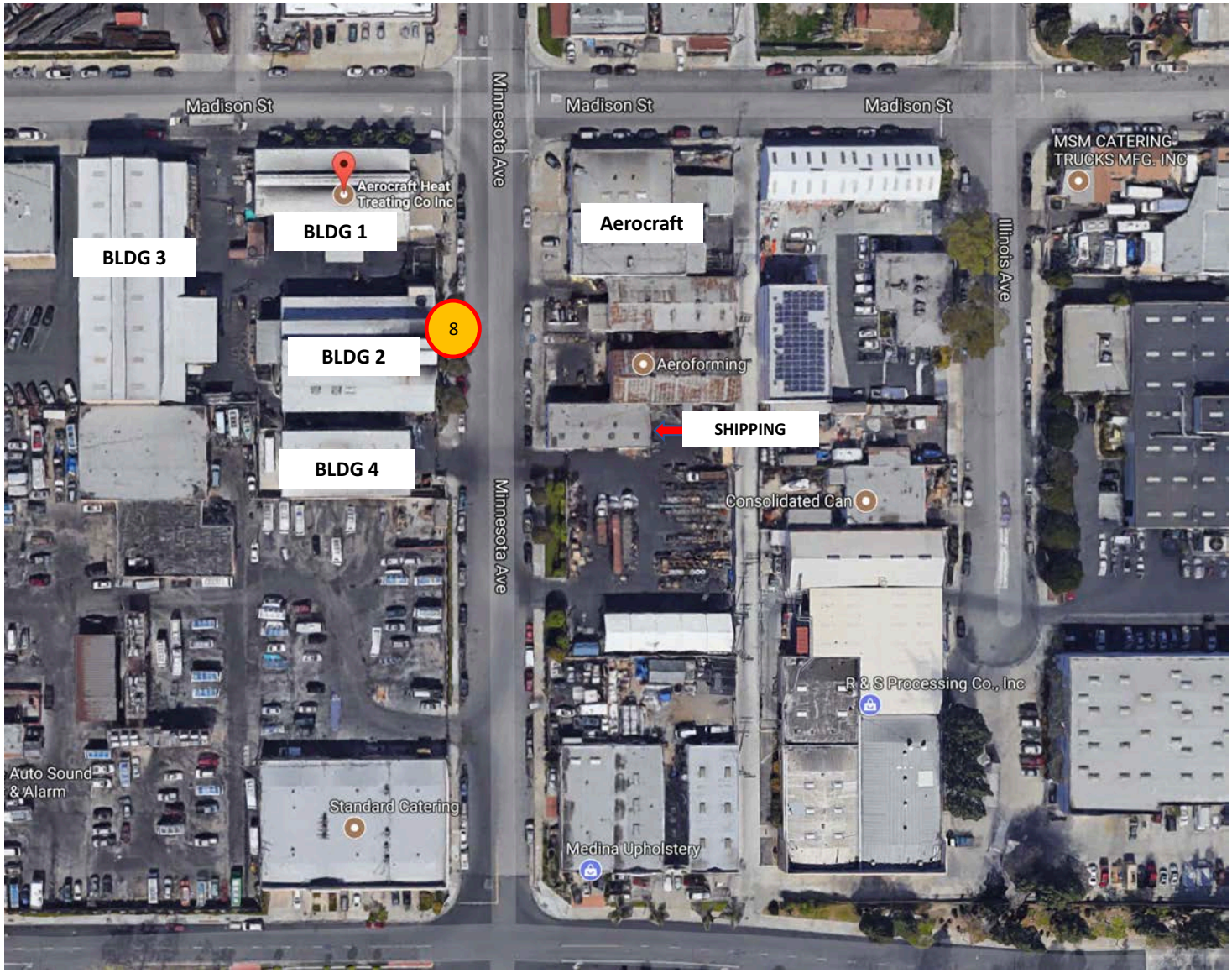
EXHIBIT C

Press Forge Chromium Reduction Measures

Date	Actions Taken
November 2016	All outside grinding stopped (small amount of hand grinding previously occurred outside buildings). After this, all grinding occurred inside buildings controlled by baghouses
December 2016	Stopped use of compressed air for cleaning purposes
December 2016	Stopped use of dry sweeping for cleanup
December 2016	Purchased additional HEPA vacuums to replace broom sweeping and facilitate housekeeping
December 2016	Replaced mobile dry sweeper with a wet sweeper to minimize fugitive dust
December 2016	Limited cleaning of areas potentially impacted by metal dust to wet cleaning or use of HEPA vacuums
December 2016	Implemented enhanced maintenance procedures using HEPA vacuums and wet cleaning to minimize suspension of dust and trackout
December 2016	Trained workers on fugitive dust minimization procedures
March 2017	Added strip doors to all four existing grinding buildings
March 2017	Permanently closed all vents on all grinding buildings
March 2017	Lined baghouse dust hoppers with plastic bags for better control of dust during the process of transferring to roll-off bins
April 2017	Submitted air permit application for new baghouse to control new Grind Building
December 2017	Commenced construction of new Grind Building that will operate as a Permanent Total Enclosure and will house all hand grinding. Emissions will be controlled by new baghouse with HEPA after-filters.

Exhibit D


Philpott Corporation
Merlin Mold Making
Aerocraft Heat Treating Co Inc
Madison St
Minnesota Ave
BLDG 3
BLDG 1
BLDG 2
BLDG 4
8
Aerocraft
SHIPPING
Aeroforming


Madison St
Madison St
Madison St
Minnesota Ave
Minnesota Ave
Illinois Ave
Aerocraft Heat Treating Co Inc
BLDG 1
BLDG 3
BLDG 2
BLDG 4
8
Aerocraft
Aeroforming
SHIPPING
Consolidated Can
MSM CATERING TRUCKS MFG. INC
R & S Processing Co., Inc
Auto Sound & Alarm
Standard Catering
Medina Upholstery

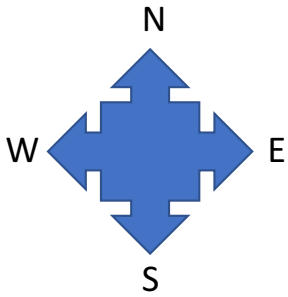

N
W
E
S

Exhibit E

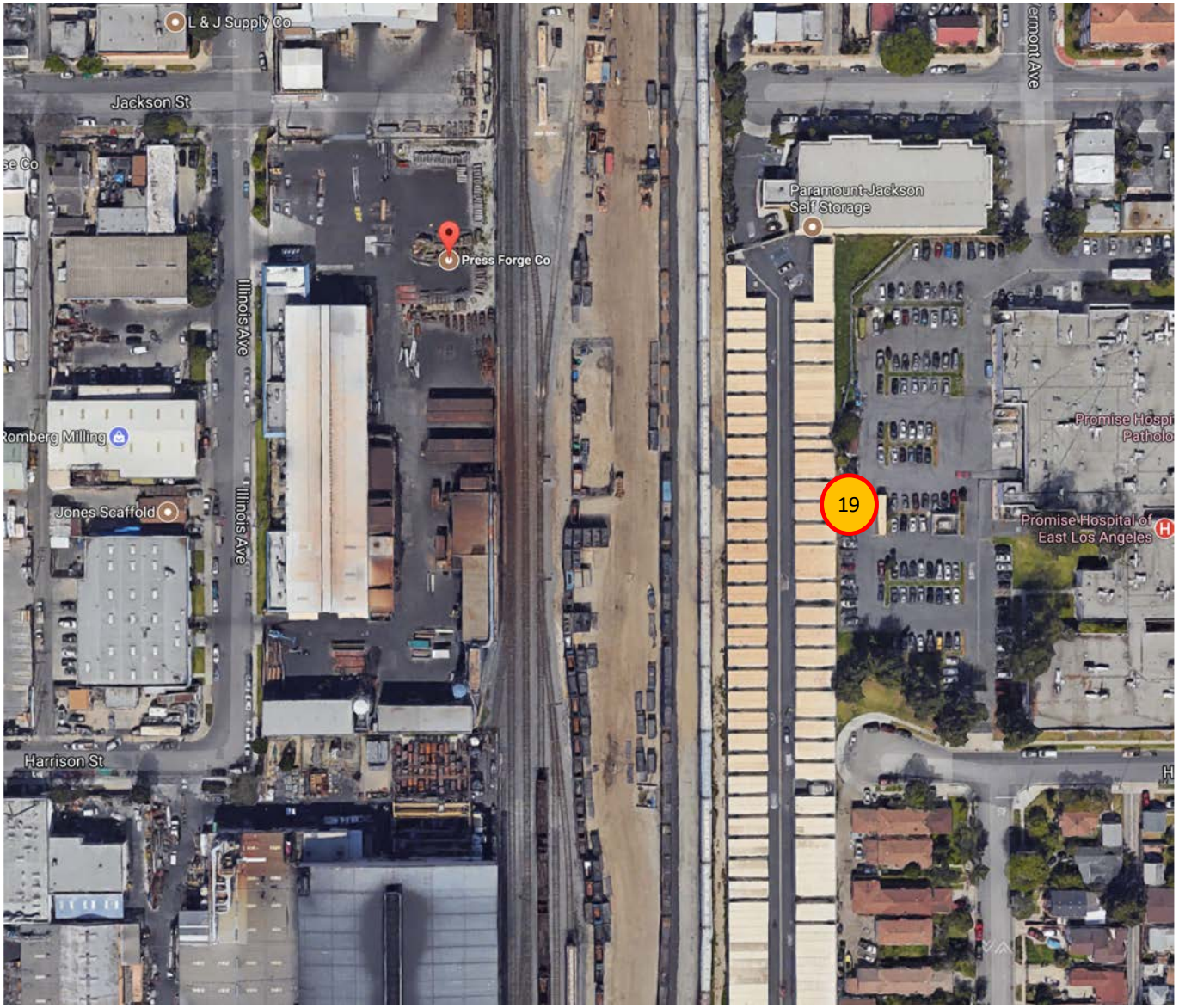
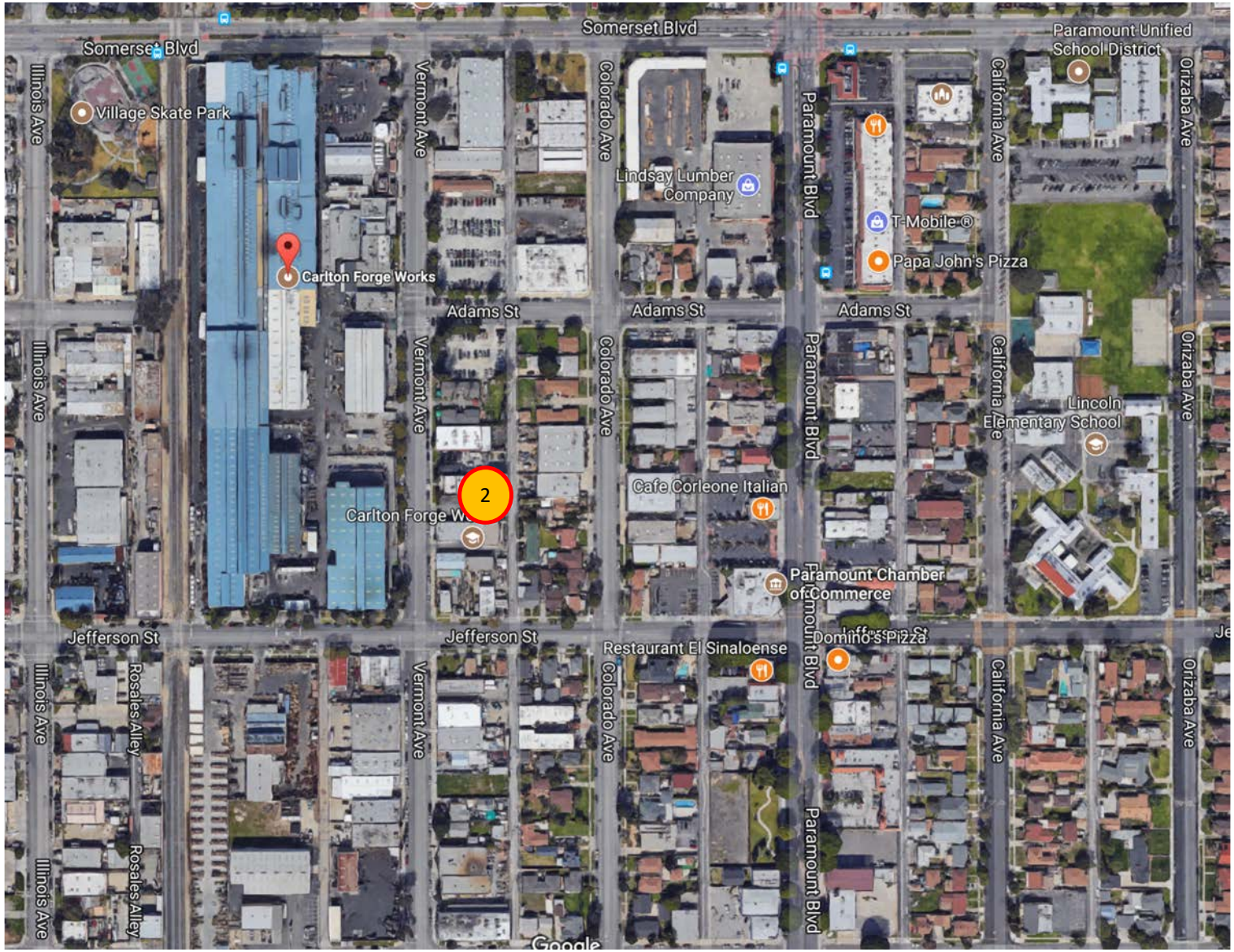

L & J Supply Co
Jackson St
Press Forge Co
Paramount-Jackson Self Storage
Illinois Ave
Illinois Ave
Romberg Milling
Jones Scaffold
Harrison St
Promise Hospital of East Los Angeles
19
N
W
E
S

Exhibit F


Somerset Blvd
Somerset Blvd
Paramount Unified School District
Village Skate Park
Illinois Ave
Vermont Ave
Colorado Ave
Paramount Blvd
California Ave
Orizaba Ave
Lindsay Lumber Company
T-Mobile
Papa John's Pizza
Carlton Forge Works
Adams St
Adams St
Adams St
Lincoln Elementary School
2
Cafe Corleone Italian
Carlton Forge W
Paramount Chamber of Commerce
Jefferson St
Jefferson St
Restaurant El Sinaloense
Domino's Pizza
Rosales Alley
Rosales Alley
Google

N

W E

S

Exhibit G

Health Effects of Hexavalent Chromium

A fact sheet by
CalEPA's Office of Environmental Health Hazard Assessment
November 9, 2016

What is hexavalent chromium?

Hexavalent chromium, also known as chromium 6 (Cr6), is the toxic form of the metal chromium. While some less toxic forms of chromium occur naturally in the environment (soil, rocks, dust, plants, and animals), Cr6 is mainly produced by industrial processes.

Cr6 is used in:

- Electroplating
- Stainless steel production and welding
- Pigments and dyes
- Surface coatings
- Leather tanning

How are people exposed to Cr6?

Humans are exposed to Cr6 by:

- Inhalation of aerosols or particles
- Ingestion (eating and drinking)
- Skin contact

Cr6 may occur as aerosols or particulate matter in air. These can be inhaled directly or ingested after they land on soil or water. Contact with soil containing Cr6 may transfer to the hands and then to the mouth. Young children put their hands in their mouths more frequently than adults. For this reason, young children are more likely to consume contaminated soil. Children are also more active outdoors and they may have more contact with contaminated soil.

One form of Cr6, chromic acid, is created as a mist during electroplating. Workers and bystanders may inhale the mist. Chromic acid can also be absorbed through the skin. In addition, chromic acid deposited on the skin can be ingested through hand-to-mouth activities, such as eating.

What are the health effects from breathing Cr6?

Inhalation of Cr6 can cause cancer and non-cancer health effects.

Cancer effects: Breathing Cr6 over a long period of time increases the risk of lung cancer and nasal cancers

Non-cancer effects: Breathing Cr6 at high levels over time can cause or worsen certain health conditions, including:

- Irritation of the nose, throat and lungs (runny nose, coughing)
- Allergic symptoms (wheezing, shortness of breath)
- Nasal sores and perforation of the membrane separating the nostrils (at very high air levels in workplaces)

What are the health effects from eating, drinking, or touching Cr6?

Eating or drinking Cr6 may also be harmful to humans. Studies show that Cr6 in drinking water may cause an increased risk of stomach cancer and reproductive harm. Direct contact with Cr6 can cause allergic skin rashes in some people.

At what level could health effects occur?

OEHHA has calculated a cancer risk associated with exposure to Cr6 if that exposure continues for an entire lifetime. Continual exposure to 0.045 nanograms per cubic meter (ng/m^3) of Cr6 from all sources combined for 30 years could increase cancer risk to 25 in a million. Exposure over shorter periods of time would be associated with much lower cancer risks.

OEHHA has also developed a chronic Reference Exposure Level (REL) for Cr6. A chronic REL is a health-based benchmark that is set at a level at or below which adverse non-cancer health effects are unlikely to occur in the general human population when exposed continuously over a lifetime. Levels above the REL do not indicate the health effects will occur, but rather, that the chances of these health effects occurring increase at levels above the REL. Non-cancer health effects associated with Cr6 include nasal, throat, or respiratory irritation or allergies. The chronic REL for Cr6 is 200 ng/m^3 in air (0.2 $\mu g/m^3$).

Exhibit H

Efectos del Cromo Hexavalente Sobre la Salud

Una hoja informativa de la
Oficina de Evaluación de Peligros de Salud Ambientales
(OEHHA) de CalEPA
9 de noviembre de 2016

¿Qué es el cromo hexavalente?

El cromo hexavalente, también conocido como cromo 6 (Cr6), es la forma tóxica del metal cromo. Mientras que algunas formas menos tóxicas del cromo ocurren naturalmente en el ambiente (suelo, rocas, polvo, plantas, y animales), el Cr6 se produce principalmente por procesos industriales.

El Cr6 se utiliza en:

- Galvanoplastia
- Fabricación y soldadura de acero inoxidable
- Pigmentos y colorantes
- Revestimientos de superficies
- Curtido de cuero

¿Cómo se exponen las personas al Cr6?

Los seres humanos se exponen al Cr6 por:

- Inhalación de aerosoles o partículas
- Ingestión (comer y beber)
- Contacto con la piel

El Cr6 puede ocurrir como aerosoles o partículas en el aire. Estos pueden ser inhalados directamente o ingeridos después de caer en el suelo o el agua. El contacto con el suelo que contiene Cr6 puede transferirse a las manos y luego a la boca. Los niños pequeños ponen sus manos en la boca con más frecuencia que los adultos. Por esta razón, los niños pequeños son más propensos a consumir el suelo contaminado. Los niños también son más activos al aire libre y pueden tener más contacto con el suelo contaminado.

Una forma de Cr6, el ácido crómico, se crea como una niebla durante la galvanoplastia. Los trabajadores y los transeúntes pueden inhalar la niebla. El ácido crómico también puede ser absorbido a través de la piel. Además, el ácido crómico depositado sobre la piel puede ser ingerido a través de actividades de mano a boca, tales como comer.

¿Cuáles son los efectos sobre la salud de respirar el Cr6?

La inhalación de Cr6 puede causar cáncer y efectos no cancerígenos sobre la salud.

Efectos de cáncer: Respirar Cr6 durante un largo período de tiempo aumenta el riesgo de cáncer de pulmón y cánceres nasales

Efectos no cancerígenos: Respirar Cr6 a niveles altos con el tiempo puede causar o empeorar ciertas condiciones de salud, incluyendo:

- Irritación de la nariz, la garganta y los pulmones (secreción nasal, tos)
- Síntomas alérgicos (sibilancias, dificultad para respirar)
- Llagas nasales y perforación de la membrana que separa las fosas nasales (a niveles muy altos de aire en los lugares de trabajo)

¿Cuáles son los efectos sobre la salud de comer, beber o tocar el Cr6?

Comer o beber Cr6 también puede ser dañino para los seres humanos. Los estudios demuestran que el Cr6 en el agua potable puede causar un mayor riesgo de cáncer del estómago y daño reproductivo. El contacto directo con Cr6 puede causar erupciones de la piel alérgicas en algunas personas.

¿A qué nivel podrían ocurrir los efectos sobre la salud?

OEHHA ha calculado un riesgo de cáncer asociado con la exposición a Cr6 si esa exposición continúa durante toda una vida. La exposición continua a 0.045 nanogramos por metro cúbico (ng/m^3) de Cr6 de todas las fuentes combinadas durante 30 años podría aumentar el riesgo de cáncer a 25 en un millón. La exposición durante períodos más cortos de tiempo se asociaría con riesgos de cáncer mucho más bajos.

OEHHA también ha desarrollado un Nivel de Referencia de Exposición crónico (REL, por sus siglas en ingles) para el Cr6. Un REL crónico es un punto de referencia basado en la salud que se fija en un nivel al cual o por debajo del cual no es probable que ocurran efectos adversos no cancerosos para la salud en la población humana general cuando se exponen continuamente durante la vida. Los niveles por encima del REL no indican que los efectos sobre la salud ocurrirán, sino más bien, que las posibilidades de que estos efectos sobre la salud ocurran aumentan a niveles por encima del REL. Los efectos no cancerígenos para la salud asociados con el Cr6 incluyen irritación o alergias nasales, de la garganta o respiratorias. El REL crónico para el Cr6 es de 200 ng/m^3 en el aire (0.2 $\mu g/m^3$).