SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

FINAL MITIGATED NEGATIVE DECLARATION FOR:
HIXSON METAL FINISHING RISK REDUCTION PROJECT

SCH No. 201511009

December 2015

Executive Officer
Barry Wallerstein, D. Env.

Deputy Executive Officer,
Planning, Rule Development, and Area Sources
Phillip M. Fine, Ph.D.

Assistant Deputy Executive Officer,
Planning, Rule Development, and Area Sources
Jill Whynot

Planning and Rules Manager
Planning, Rule Development and Area Sources
Ian MacMillan

Submitted to:
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Prepared by:
ENVIRONMENTAL AUDIT, INC.

Reviewed by: Barbara Baird **–** Chief Deputy Counsel
Ian MacMillan – Planning and Rules Manager
Jillian Wong, Ph.D. – Program Supervisor, CEQA
Amir Dejbakhsh – Assistant Deputy Executive Officer
Ed Muehlbacher – Air Quality Analysis and Compliance Supervisor

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT GOVERNING BOARD

CHAIRMAN: DR. WILLIAM A. BURKE
Speaker of the Assembly Appointee

VICE CHAIR: DENNIS YATES
Mayor, Chino
Cities of San Bernardino County

MEMBERS:

MICHAEL D. ANTONOVICH
Supervisor, Fifth District
County of Los Angeles

BEN BENOIT
Mayor, Wildomar
Cities of Riverside County

JOHN J. BENOIT
Supervisor, Fourth District
County of Riverside

JOE BUSCAINO
Councilmember, Fifteenth District
City of Los Angeles

MICHAEL A. CACCIOTTI
Councilmember, South Pasadena
Cities of Los Angeles County Eastern Region

JOSEPH K. LYOU, Ph.D.
Governor's Appointee

JUDITH MITCHELL
Councilmember, Rolling Hills Estates
Cities of Los Angeles County Western Region

SHAWN NELSON
Supervisor, Fourth District
County of Orange

DR. CLARK E. PARKER, Sr.
Senate Rules Committee Appointee

MIGUEL A. PULIDO
Mayor, City of Santa Ana
Cities of Orange County

JANICE RUTHERFORD
Supervisor, Second District
County of San Bernardino

EXECUTIVE OFFICER
BARRY WALLERSTEIN, D. Env.

TABLE OF CONTENTS
DRAFT MITIGATED NEGATIVE DECLARATION FOR THE HIXSON METAL FINISHING RISK REDUCTION PLAN

Page No.

TABLE OF CONTENTS
(concluded)

Page No.

FIGURES:

TABLES:

APPENDICES:

PREFACE

This document constitutes the Final Mitigated Negative Declaration (MND) for the Hixson Metal Finishing Risk Reduction Project. The Draft ND was circulated for a 30-day public review and comment period (November 4, 2015 December 4, 2015). Two comment letters and two email comments was received during the public comment period.

Minor modifications have been made to the Draft MND such that it is now a Final MND. The conclusions reached in the Draft MND have been kept as they are. There has been no new information of substantial importance relative to the draft document that would require recirculation of the Draft MND pursuant to CEQA Guidelines §15073.5. Therefore, this document is now a Final MND. Additions to the text of the MND are denoted using underline. Text that has been eliminated is shown using ~~strike outs~~.

CHAPTER 1

PROJECT DESCRIPTION

Introduction
Background and History of Hixson Operations
Agency Authority
Project Location
Overview of Current Operations
Proposed Project
Construction Schedule
Required Permits and Approvals

1.0 PROJECT DESCRIPTION

1.1 INTRODUCTION

Hixson Metal Finishing (Hixson or Facility) is proposing a Risk Reduction Project (proposed project) at its Newport Beach Facility, which would consist of on-site tank, spray booth, and oven relocations; installation of additional air pollution control systems; construction of permanent total enclosures; installation of covers on waste water treatment tanks, preparation and implementation of an improved housekeeping and dust ~~mitigation~~ minimization plan, and improvements to the Facility's electrical system. The Facility currently conducts anodizing, testing, plating, and coating for aerospace and defense industries. The overall focus of the proposed project is to reduce the Facility's emissions, primarily of hexavalent chromium (CrVI) in order to comply with an approved Risk Reduction Plan that was required under South Coast Air Quality Management District (SCAQMD) Rule 1402.

1.2 BACKGROUND AND HISTORY OF HIXSON OPERATIONS

1.2.1 General Operations

Hixson has operated in Newport Beach, California since 1958 and is a metal finishing facility that conducts anodizing, testing, plating, coating, and painting operations on various parts for use in the aerospace and defense industries. The Facility is located at ~~817~~816-861 Production Place, Newport Beach, CA 92663. Hixson operates various types of equipment that are subject to the SCAQMD rules and regulations and permit requirements.

Some of the potential on-site sources of emissions include the chrome anodizing line, chemfilm line, nickel and cadmium plating, curing and drying ovens, paint spray booths, abrasive blasting equipment, wastewater treatment, and miscellaneous natural gas combustion sources. In addition, equipment such as tanks, racks, and drums, and operations such as packaging, product handling and transfer, scuffing/sanding, demasking, and maintenance and cleaning activities contribute substantial fugitive emissions. The primary air quality concern associated with Hixson's operations is CrVI and cadmium emissions.

1.2.2 Air Quality Monitoring

As a result of a basin-wide air toxics monitoring program and study conducted by the SCAQMD (Multiple Air Toxics Exposure Study or MATES III), higher than average levels of CrVI were detected in the general area surrounding Hixson's facility. The SCAQMD installed an ambient monitoring station near Hixson and began monitoring for CrVI. In late 2010 and early 2011, SCAQMD staff noted an increase in CrVI levels so Proposition 65 notices were prepared to notify the public of high CrVI emissions and the health risks associated with those emissions. A second ambient monitoring station was installed to better assess CrVI emission levels and the SCAQMD requested that Hixson implement additional air pollution control strategies to better control emissions.

Despite implementation of control measures, the CrVI detected at the off-site ambient air quality monitors continued to stay at elevated levels and began increasing in late 2013 and early 2014. The SCAQMD staff performed extensive facility inspections, performed emission source tests, and installed additional ambient monitoring stations inside the Hixson facility to identify the sources of CrVI emissions. The SCAQMD required Hixson to prepare and submit a Health Risk Assessment (HRA) and Risk Reduction Plan (RRP) in April 2014. In addition, an Order of Abatement was issued in April 2014 that requires Hixson to implement additional air pollution control systems and requires Hixson to cease operating their tanks containing chromium solutions whenever the off-site seven day average CrVI concentration exceeded specified levels. The monitored levels of CrVI began dropping immediately with implementation of the measures agreed to in the Order of Abatement.

Hixson submitted a HRA that was revised based on SCAQMD comments and that was subsequently approved by the SCAQMD on May 8, 2015. The Hixson HRA used 2013 emissions levels to estimate cancer risks and was adjusted to account for the new OEHHA risk factors adopted in March 2015. Assuming that emissions from Hixson in 2013 persisted for a lifetime, the maximum residential cancer risk was found to be up to 1,501 per million at the residences adjacent to Hixson and 88 per million at businesses adjacent to Hixson. The non-cancer risk levels were all below significance threshold levels. These health risks were calculated using computer models in addition to the data collected from the two monitors adjacent to Hixson. Since mid-2014, the monitors have shown a substantial decrease in detected levels of CrVI, translating to an approximate maximum residential risk of 350 per million if these levels persisted for a lifetime. Since the HRA results were above notification thresholds established in SCAQMD Rule 1402 (10 per million), Hixson was required to notify the surrounding community about the health risk caused by CrVI emissions. A community meeting was held at Hoag Hospital on June 17, 2015 to inform the community of the results of the HRA and of various actions taken by SCAQMD and Hixson to address these risks. SCAQMD Rule 1402 requires health risks to be reduced below 25 per million as soon as possible.

In addition to the HRA, Hixson prepared a RRP which was conditionally approved by the SCAQMD on July 24, 2015. The RRP requires that Hixson begin implementing control measures as soon as possible and have all control measures in place by the end of March 2016. Hixson submitted SCAQMD permit applications for the stationary source modifications to the Facility that are necessary to implement the RRP. This document analyzes the potential impacts of the modifications.

1.3 AGENCY AUTHORITY

The California Environmental Quality Act (CEQA) (Public Resources Code §21000 et seq., and Title 14 California Code of Regulations §15000 et seq.), requires that the environmental impacts of proposed projects be evaluated and that feasible methods to reduce, avoid or eliminate significant adverse impacts of these projects be identified and implemented. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect upon the environment (Public Resources Code §21067). The proposed project requires discretionary approval from the South Coast Air Quality Management District (SCAQMD) for air quality permits for modifications to existing stationary source

equipment, relocation of existing equipment, and installation of new stationary source equipment and, therefore, it is subject to the requirements of CEQA. Because the SCAQMD has the primary responsibility for supervising or approving the entire project as a whole it is the most appropriate public agency to act as lead agency (CEQA Guidelines §15051(b)).

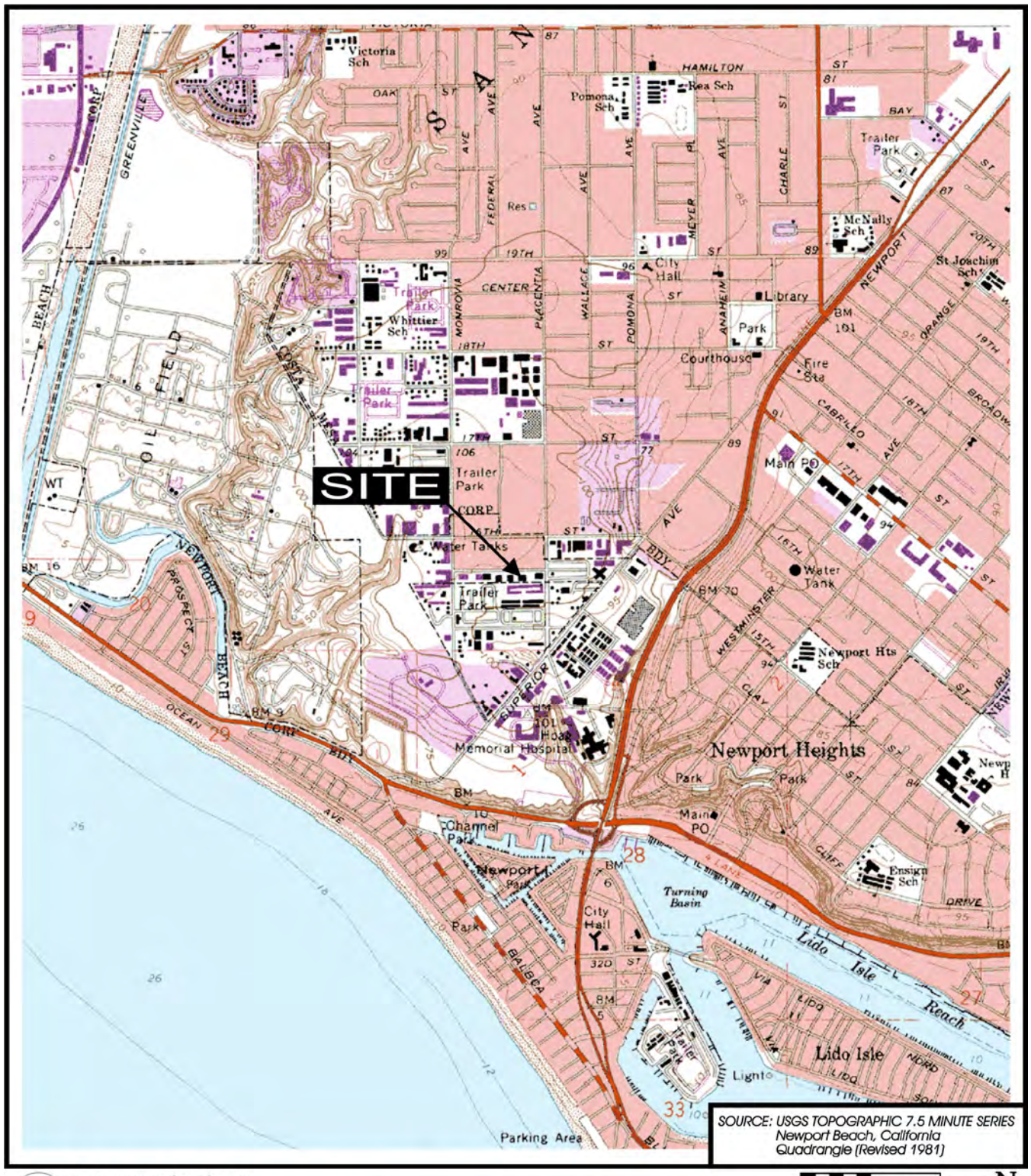
In accordance with §15002(a) CEQA Guidelines the basic purposes of CEQA are to inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects through the use of mitigation measures or alternatives to the project, and disclose to the public the reasons why a government agency approved the project if significant environmental effects are involved.

To fulfill the purpose and intent of CEQA, the SCAQMD has prepared this ~~Draft~~ Final Mitigated Negative Declaration (MND) to address the potential adverse environmental impacts associated with the proposed project. An MND for a project subject to CEQA is prepared when an environmental analysis of the project shows that there is no substantial evidence that the project may have a significant effect on the environment after mitigation(CEQA Guidelines §15070(b)). As discussed in Chapter 2, the proposed project is not expected to result in any significant adverse environmental impacts after mitigation; therefore, a MND is the appropriate CEQA document.

The evaluation presented in Chapter 2 presents the analysis and discussions for the following areas: aesthetics, agricultural and forestry resources, air quality and greenhouse gases, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, solid and hazardous waste, and transportation and traffic.

1.4 PROJECT LOCATION

The proposed project would occur at the Hixson Facility, which is located at ~~817~~816 through 861 Production Place, in the City of Newport Beach on the western edge of Orange County (see Figure 1-1). The proposed project is entirely within the property boundaries of the existing facility.



Environmental Audit, Inc.

SITE LOCATION MAP
829 Production Place
Newport Beach, CA 92663

Project No. 2960

Figure 1-1

N:\2960\SiteLocMap.cdr

Hixson is bounded to the north by Production Place and industrial uses. South of Hixson are several multi-unit residential complexes (apartment buildings). To the west are additional multi-unit residential complexes as well as buildings with commercial uses. A trailer park, multi-unit residential complexes and commercial use buildings are found to the east of Hixson, separated from the facility by Placentia Avenue. Also to the east separated by Placentia Avenue is the Ebb Tide Project to convert an existing mobile home park into condominiums. The nearest school is Carden Hall, a private school from pre-kindergarten through eighth grade students, which is located at 1541 Monrovia, approximately 0.2 miles west of the project site.

1.5 OVERVIEW OF CURRENT OPERATIONS

The Facility performs several different metal finishing processes on products used in the aerospace and defense industries. Anodizing is an electrolytic process done at the Facility that increases the thickness of naturally occurring oxide layers on the surface of metal parts. There are currently three different types of anodizing performed at the Facility: Type I (Chromic), Type II (Sulfuric), and Type III (Hard). Non-destructive testing is also performed that can evaluate the properties of a material or component being used without causing damage to the object undergoing testing. Various plating services are in use which deposit ionic metals onto conductive surfaces to form non-ionic coatings, typically to prevent corrosion or to help with the function of the components. Painting booths are in operation, which utilize primers, topcoats, dry film lubricants, bond primers, and sol gels to achieve the desired finish for various military or aerospace needs. The Hixson facility routinely operates 24 hours per day 7 days per week.

Hixson operates six buildings at its Newport Beach Facility. An overview of the operations is summarized as follows:

Building 1: 817 Production Place. Contains the Vacuum Cad Department, Tank 100, abrasive blasting operations, and shipping department, as well as offices.

Building 2: 829 Production Place. Contains the Anodizing and Chemfilm Operations, as well as offices. The waste treatment area is between Building 2 and 3. SCAQMD Permits to Construct were previously issued for new anodizing and chemfilm lines, but as part of the proposed project will be modified to include air pollution control equipment.

Building 3: 835 Production Place. Contains the General Plate and Precious Metals Plating Department, Electroless Nickel Department, Research and Development Department, demasking operations, coating area (spray booth and oven), paint racks, and abrasive blasting operations.

Building 4: 847/853 Production Place. Contains the coating area, super sack storage, paint racks, demasking operations, and sanding and scuffing operations.

Building 5: 861 Production Place. Contains the Masking, Masking supermarket, Maintenance, deionized (DI) water supply and the Steico cell.

Building 6: 816 Production Place. Contains a training center, the Non-Destructive Testing (NDT) department, as well as offices. No modifications in this building are proposed.

1.6 PROPOSED PROJECT

The proposed project would not affect or change the type of operations at Hixson. Normal services of anodizing, testing, plating, and painting would continue to occur. The strategy for implementation of the RRP includes complete enclosure of activities that could generate fugitive emissions and venting of the emissions generated inside the enclosures to air pollution control equipment, allowing Hixson to reduce toxic air contaminant emissions (primarily CrVI) through control of fugitive emissions.

1.6.1 Equipment Relocations

Hixson is proposing to reduce fugitive emissions from some equipment by relocating them to fully enclosed structures that are vented to air pollution control equipment. Tank 100 would be eliminated in Building 1. Tanks 87, 96, 97, and 98 have been moved from Building 2 to Building 3. De-masking operations in Building 3 will be moved to Building 4 and will be equipped with two downdraft tables, each venting to high efficiency particulate air (HEPA) filters. Preparation and package operations, ovens (6 and 7), and Paint Booth 1 would be relocated from Building 3 to Building 4. Two chromic tanks now located in the Precious Metals Department in Building 3 will be moved to the General Plate Department, which will be within a Permanent Total Enclosure (PTE), in Building 3. Paint racks and supersacks would be moved from in-between Buildings 3 and 4 to the inside of Building 4. Masking, masking supermarket, maintenance, DI water supply and the Steico cell will subsequently be moved to 861 Production Place (Building 5).

1.6.2 Construction of Permanent Total Enclosures

Hixson has proposed the construction of a PTE for the area between the Buildings 2 and 3, as well as a PTE for the Anodizing and Chemfilm operations in Building 2. The PTE for Building 2 will have fast, self-opening and closing doors installed in the outer wall of the building ~~as well as a 10' by 10' roll-up door that is to remain closed during routine operations~~. The filtration systems for the PTE are described in Section 1.6.3. An existing roll up door in the receiving area, not located within the PTE, will continue to remain open during business hours.

The Patio and Waste Treatment area, currently an open space between Buildings 2 and 3, will be enclosed by plastic curtains to make a PTE. This PTE will vent to a dry scrubber proposed for the Building 2 PTE as its ventilation systems to control potential fugitive CrVI emissions. The proposed project also includes the construction of PTE within Buildings 3 and 4, which would include similar features as to those found in the PTE for Building 2.

1.6.3 Installation of Filtration Systems

The Facility has some existing systems in place to reduce or vent the toxic emissions from equipment in the buildings. The proposed project would install ultra-low particulate air (ULPA)

filters (99.999% control) in the dry scrubber in Building 3 for direct ventilation of tanks containing CrVI. A dry scrubber equipped with ULPA filters will be installed for direct ventilation of tanks containing CrVI in Building 2 and the PTE between Buildings 2 and 3. To handle any potential cyanide fumes from the General Plate and Precious Metals area in Building 3, all cyanide containing tanks will be equipped with a hood and directly vented to the mist eliminator. A wet acid scrubber with mesh pads will be installed in Building 2 to control acid emissions from Buildings 2 and 3. The exhaust of the vacuum metalizing chamber in Building 1 will have a HEPA filtration system added to reduce cadmium emissions. An upgraded ULPA filtration system will be placed on the sanding and scuffing booth in Building 4 to further reduce emissions in that location. Downdraft tables with HEPA filtration will be installed for demasking activities in Building 4. Figure 1-2 shows the proposed locations of the air pollution control devices.

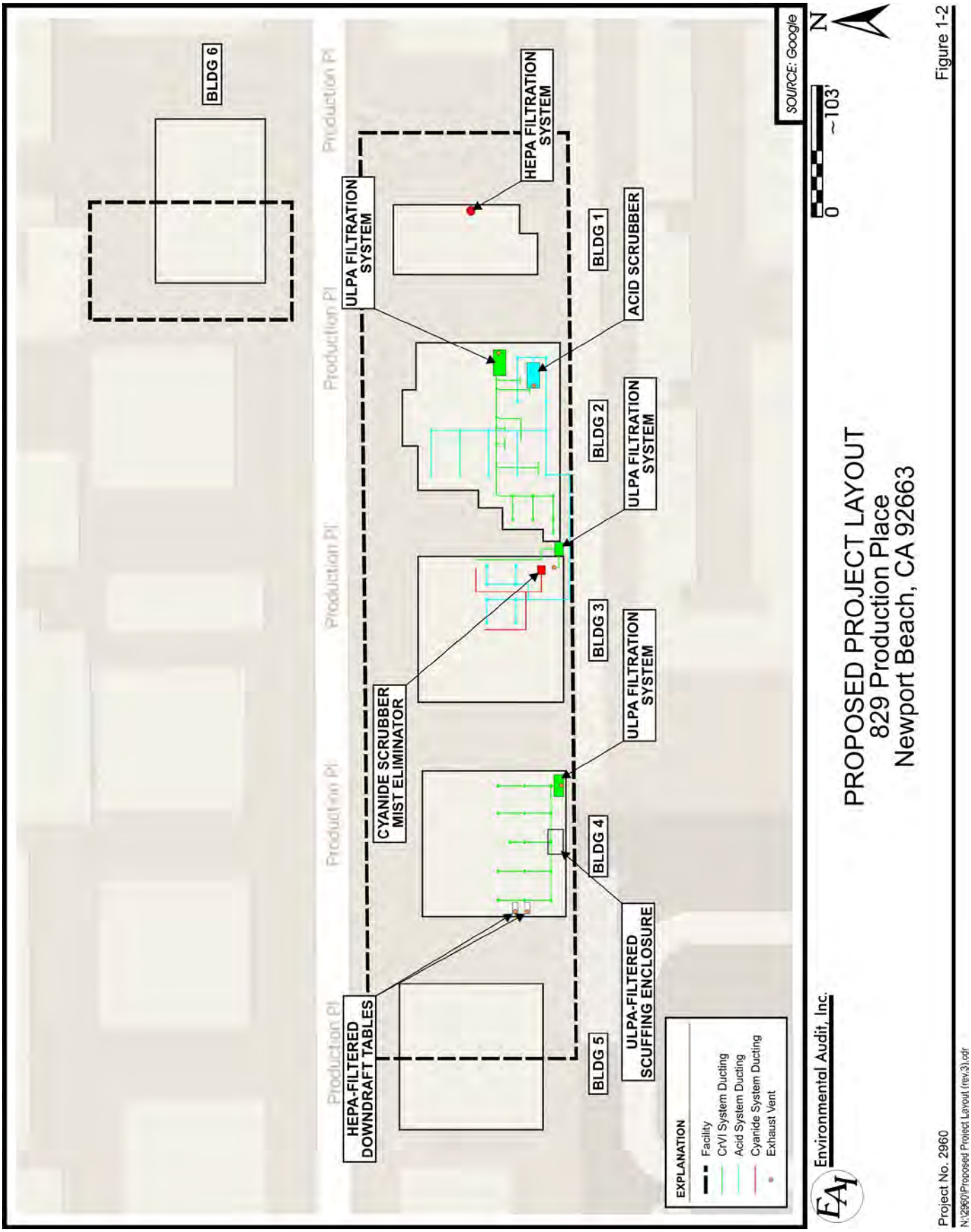
1.6.4 Modifications to Other Facility Equipment

Several wastewater treatment tanks are currently located at the Facility. Covers will be added to all the tanks not enclosed by the new PTEs, including the lamella and pH adjustment tanks. Within the Electroless Nickel Department located in Building 2, Tanks ~~99,~~ 177~~,~~ and 178 have already been shut down and are no longer generating emissions. Tank 99, which was stated in the Final Risk Reduction Plan to be taken out of service will be relocated to the modified etching line in Building 2 and vented to the proposed wet acid scrubber with mesh pads. Unused ductwork on the roof of Building 2 will be inspected and sealed or removed.

The RRP proposes an enhancement of the new anodize and chemfilm lines to be constructed in Building 2 to include air pollution control equipment to reduce emissions. The new configuration and design of the process lines are expected to further reduce potential fugitive emissions from Building 2 as the tanks will be aligned such that material movement between tanks is minimized, reducing associated drag out.

To maintain production, a new paint booth and a new oven will be added to Building 4. While the new oven and paint booth are not related to the Risk Reduction Project, the timing of the installation of the equipment is expected to overlap the implementation of the proposed project. Therefore, the analysis of the potential impacts includes the installation and operation of the new paint booth and new oven.

Hixson will upgrade their electrical system. Approximately 1,000 feet of new electrical lines will be installed at the Facility. This activity ~~will~~ may take place either prior to the start of or during ~~prior to the start of~~ construction as the upgraded electrical system is needed to operate the new equipment. In order to install the electrical system, eight on-site ornamental trees will need to be removed. Hixson will install drought tolerant landscape plants to replace the lost landscape and will provide additional drought tolerant landscape plants throughout the site.


BLDG 6
Production Pl
ULPA FILTRATION SYSTEM
HEPA FILTRATION SYSTEM
BLDG 1
ACID SCRUBBER
BLDG 2
ULPA FILTRATION SYSTEM
CYANIDE SCRUBBER MIST ELIMINATOR
BLDG 3
ULPA FILTRATION SYSTEM
BLDG 4
ULPA-FILTERED SCUFFING ENCLOSURE
BLDG 5
HEPA-FILTERED DOWNDRAFT TABLES
EXPLANATION
Facility
CrVI System Ducting
Acid System Ducting
Cyanide System Ducting
Exhaust Vent
SOURCE: Google
N
0
~103'
PROPOSED PROJECT LAYOUT
829 Production Place
Newport Beach, CA 92663
Environmental Audit, Inc.
Project No. 2960
N:\2960\Proposed Project Layout (rev3).cdr
Figure 1-2

An existing soil vapor extraction (SVE) system, installed at the direction of the DTSC to address historical soil contamination and permitted by the SCAQMD, is undergoing a permit revision. Additionally, there are plans to add another SVE system at the Facility.

1.6.5 Policy and Procedure Changes

Hixson will implement policies and procedures, as well as a new CrVI Dust ~~Mitigation~~ Minimization Plan, to further reduce the potential for fugitive emissions including: (1) HEPA vacuuming of areas of the facility on a daily basis; and (2) Continuing to evaluate its operations to further identify and alleviate or minimize the potential for fugitive emissions. The Dust ~~Mitigation~~ Minimization Plan includes provisions related to:

Flat Surfaces:	All flat surfaces (carts, tops of equipment, shelves, etc.) shall be maintained, as far as practicable, free from accumulations of dusts and/or residue.
Spills:	All spills and releases shall be cleaned up immediately and shall be reported as required by federal, state and/or local requirements.
Cleaning Procedures:	All residues shall be cleaned up by the use of a HEPA filtered vacuum for dry materials ~~followed by~~ and/or using a damp cloth or wet mop. All liquid residues shall be removed using a cloth or sorbent.
Disposal:	All contaminated waste must be disposed of in accordance with waste management regulations.

Site specific provisions are further detailed in the Dust ~~Mitigation~~ Minimization Plan (see Appendix A).

1.7 CONSTRUCTION SCHEDULE

Construction of the proposed project at Hixson is expected to be completed by March 31, 2016. Implementation of some aspects of the RRP (e.g., replacement of the roof and enclosure that was previously destroyed by fire) are not subject to CEQA as no discretionary approval was necessary and have already been completed. The proposed project as described in Section 1.6 will be implemented following certification of this MND. Construction activities at the Facility would not involve the relocation of individuals, impact housing or commercial facilities, or change the distribution of the population because the proposed project would occur completely within the boundaries of the existing Facility. The construction work force of approximately 15 workers is temporary and is expected to come from the existing labor pool in the southern California area.

1.8 REQUIRED PERMITS AND APPROVALS

The proposed project will require approvals from a variety of federal, state, and local agencies (see Table 1-1) and requires permits from the SCAQMD and the city of Newport Beach. Examples of general permits and approvals required for the Hixson facility are summarized below.

1.8.1 Federal Approvals

No federal agency approvals for the proposed project are expected to be required although the project applicant is required to comply with some existing regulations e.g., OSHA regulations.

1.8.2 State Approvals

Construction-related ministerial permits may be required from the California Occupational Safety and Health Administration (CalOSHA) for construction and operation including permissible exposure limits (PELs). Any transport of heavy construction equipment or oversized equipment which requires the use of oversized transport vehicles on state highways, will require a Caltrans transportation permit. DTSC regulates the generation, transport, treatment, and disposal of hazardous wastes. Hazardous wastes generated by the proposed project activities are governed by rules and regulations enforced by DTSC.

1.8.3 Regional Approvals

The SCAQMD has responsibility as lead agency for the CEQA process, including preparation and certification of this MND because it has primary approval authority over the proposed project (CEQA Guidelines §15051(b)). Permits to Construct/Operate for new equipment and modifications to existing units will be required. Certain components of the proposed project would also be subject to existing SCAQMD rules and regulations, permit conditions or plan approvals.

1.8.4 Local Approvals

The Newport Beach City Fire Department is responsible for assuring that the City fire codes are implemented. Building permits for the proposed project will be required from the City of Newport Beach to assure that the proposed project complies with the California Building Code and Newport Beach Zoning Code.

TABLE 1-1

Federal, State, and Local Agency Requirements/Permits and Project Applicability

Agency Permit or Approval	Requirement	Applicability to Project
Federal		
Occupational Safety and Health Administration (OSHA)	Process Safety Management OSHA 29 CFR Part 1910	Worker process safety standards.
U.S. Environmental Protection Agency (U.S. EPA)	40 CFR 63, Subpart N - National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks	Requires emissions control from various chromium electroplating operations.
	40 CFR 63, Subpart WWWWWW - National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations	Requires emissions control from various plating operations.
State		
California Occupational Safety and Health Administration (Cal-OSHA)	Construction - related permits	Excavation, construction, worker safety permits.
	Operational-related Limits	Exposure PELs.
Department of Transportation (Caltrans)	Oversized Load Permits	Required for oversized deliveries.
Department of Toxic Substances Control (DTSC)	Hazardous Waste Control Law (HSC, Division 20, Chapter 6.5)	Required if facility stores, treats, or disposes of hazardous waste as described in the regulation.
California Emergency Management Agency	California Accidental Release Prevention Program (CalARP) Title 19, CCR Division 2, Chapter 4.5	Requires risk management planning for specific chemicals.
Regional		
South Coast Air Quality Management District (SCAQMD)	CEQA Document Preparation	SCAQMD is the lead agency for preparation and certification of the proposed project MND.
	SCAQMD Rule 201: Permit to Construct	Applications are required to construct or modify stationary emissions sources.
	SCAQMD Rule 203: Permit to Operate	Applications are required to operate stationary source emissions.
	SCAQMD Rule 212: Standards for Approving Permits	Requires public notification for a "significant project."
	SCAQMD Rule 301: Permitting and Associated Fees	Requires fees to be paid for new or modified sources and evaluation of projects.
	SCAQMD Rule 401: Visible Emissions	Prohibits visible emissions from single emission sources.
	SCAQMD Rule 402: Nuisance	Discharges which cause a nuisance to the public are prohibited.
	SCAQMD Rule 403: Fugitive Dust	Contains best available control measure requirements for operations or activities that create emissions of fugitive dust.
	SCAQMD Rule 404: Particulate Matter – Concentration	Limits particulate matter emissions from any source in excess of specified concentrations.

TABLE 1-1 (Concluded)

Federal, State, and Local Agency Requirements/Permits and Project Applicability

Agency Permit or Approval	Requirement	Applicability to Project
Regional		
SCAQMD (concluded)	SCAQMD Rule 409: Combustion Contaminants	Limits combustion contaminant emissions.
	SCAQMD Rule 430: Breakdown Provisions	Requires reporting of any malfunction or breakdown, which results in a violation of any rule or permit condition.
	SCAQMD Regulation IX: Standards of Performance for New Stationary Sources	Incorporates Federal regulations by reference.
	SCAQMD Regulation X: National Emissions Standards for Hazardous Air Pollutants	Incorporates Federal regulations by reference.
	SCAQMD Regulation XIII: New Source Review (NSR) including key rules Rule 1303: Requirements Rule 1304: Exemptions Rule 1306: Emission Calculations Rule 1309: Emission Reduction Credits	New Source Review requirements for non-RECLAIM pollutant emissions sources, including requirements for Best Available Control Technology (BACT), modeling for significant impacts, and providing offsets for emission increases.
	SCAQMD Rule 1401: Control of Toxic Air Contaminants from Existing Sources	New sources emitting toxic air contaminants must limit emissions to the extent that the health risks to the maximum exposed individual are within allowable limits. Best Available Control Technology for Toxics (T-BACT) is required when equipment cancer risk is greater than one in one million (1×10^{-6}).
	SCAQMD Rule 1402: Control of Toxic Air Contaminants from Existing Sources	This rule reduces health risk assessment with TAC emissions from existing sources by specifying limits for cancer risk, cancer burden, and noncancer health impacts, and by requiring facilities to implement risk reduction plans to achieve specified risk limits. The rule also specifies public notification and inventory requirements.
	SCAQMD Rule 1469: Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations	Incorporates emission limits for facilities performing chromium electroplating or chromic acid anodizing.
	SCAQMD 1469.1: Spraying Operations using Coatings Containing Chromium	Incorporated requirements to reduce hexavalent chromium emissions from spraying operations.
Regional Water Quality Control Board – ~~Los Angeles Region~~ Santa Ana Region	Stormwater Pollution Prevention Plan	Required for construction activities.
Local		
City of Newport Beach	Building permit	Required for foundations, building, etc.
	Plumbing and electrical permits	General construction permit.
	Fire construction permits	General construction permit

CHAPTER 2

ENVIRONMENTAL CHECKLIST

2.0 ENVIRONMENTAL CHECKLIST

2.1 INTRODUCTION

The environmental checklist provides a standard evaluation tool to identify a project's adverse environmental impacts. This checklist identifies and evaluates potential adverse environmental impacts that may be created by the proposed project.

2.2 GENERAL INFORMATION

Project Title:	Hixson Metal Finishing Risk Reduction Project
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive Diamond Bar, CA 91765
Lead Agency Contact Person and Phone Number:	Jillian Wong, Program Supervisor (909) 396-3176
Project Sponsor's Name:	Hixson Metal Finishing
Project Sponsor's Address:	829 Production Place Newport Beach, CA 92663
Project Sponsor's Contact Person and Phone Number:	Bruce Greene (949)722-3459
General Plan Designation:	Industrial (IG)
Zoning:	IG 0.75
Description of Project:	Hixson Metal Finishing (Hixson or Facility) is proposing a Risk Reduction Project (proposed project) at its Newport Beach Facility, which would consist of on-site tank, spray booth, and oven relocation; installation of additional air pollution control systems; construction of permanent total enclosures; installation of covers on waste water treatment tanks, preparation and implementation of an improved housekeeping and dust ~~mitigation~~ minimization plan, and improvements to the Facility's electrical system. The Facility currently conducts anodizing, testing, plating, and coating operations for aerospace and defense industries. The overall focus of the proposed project is to reduce the Facility's emissions, primarily of hexavalent chromium (CrVI), in order to comply with an approved Risk Reduction Plan that was required under SCAQMD Rule 1402
Surrounding Land Uses and Setting:	Land uses surrounding Hixson include other industrial land uses to the north and west; and multiple unit residential (RM) land uses to the east and south.
Other Public Agencies Whose Approval is Required:	City of Newport Beach

2.3 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The following environmental impact areas have been assessed to determine their potential to be adversely affected by the proposed project. As indicated by the checklist on the following pages, environmental topics marked with an "✓" may be adversely affected by the proposed project. An explanation relative to the determination of impacts can be found following the checklist for each area.

☑ Aesthetics	☑ Geology and Soils	☐ Population and Housing
☐ Agriculture and Forestry Resources	☑ Hazards and Hazardous Materials	☑ Public Services
☑ Air Quality and Greenhouse Gas Emissions	☑ Hydrology and Water Quality	☐ Recreation
☑ Biological Resources	☐ Land Use and Planning	☑ Solid and Hazardous Waste
☐ Cultural Resources	☐ Mineral Resources	☑ Transportation and Traffic
☑ Energy	☑ Noise	☑ Mandatory Findings of Significance

2.4 DETERMINATION

On the basis of this initial evaluation:

☐ I find the proposed project COULD NOT have a significant effect on the environment, and that a NEGATIVE DECLARATION will be prepared.

☑ I find that although the proposed project could have a significant effect on the environment, there will not be significant effects in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect(s) on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.

☐ I find that the proposed project MAY have a "potentially significant impact" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date: November 4, 2015

Signature: Jillian Wong

Jillian Wong, Ph.D.
Program Supervisor, CEQA
Planning, Rule Development, and Area Sources

Telephone: (909) 396-3176

2.5 ENVIRONMENTAL CHECKLIST AND DISCUSSION

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
I.	**AESTHETICS.** Would the project:				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☑
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☑
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☑	☐	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☑	☐

Significance Criteria

The proposed project impacts on aesthetics will be considered significant if:

- The project will block views from a scenic highway or corridor.
- The project will adversely affect the visual continuity of the surrounding area.
- The impacts on light and glare will be considered significant if the project adds lighting which would add glare to residential areas or sensitive receptors.

Discussion

I. a) and b) The City of Newport Beach (City) has historically been sensitive to the need of protecting and providing access to scenic resources within the City and has developed systems of public parks, piers, trails, and viewing areas. Development standards set by the City including height and bulk limits in the area around the bay, have helped to preserve scenic views and regulate the visual and physical mass of structures keeping with the unique character and visual scale of Newport Beach. As found in General Plan Figure 4.1-1, Coastal Views West Newport Area, the proposed project is outside the City's designated Shoreline Height Limitation Zone, which is intended to assist in preserving scenic views. Additionally, the Hixson Facility is not located along a Caltrans-designated state scenic highway. No rock outcroppings or historic buildings are located at the project site. Thus, project implementation would not damage scenic resources within a state scenic highway.

I. c) The existing visual character or quality of the Hixson site is defined as industrial buildings with paved driveways and limited landscape vegetation, including mature trees. The industrial

buildings offer little visual interest along Production ~~Way~~Place. The existing visual character of the surrounding area is defined by a mix of land uses, including industrial/commercial uses to the north and west, and residential uses to the south and east.

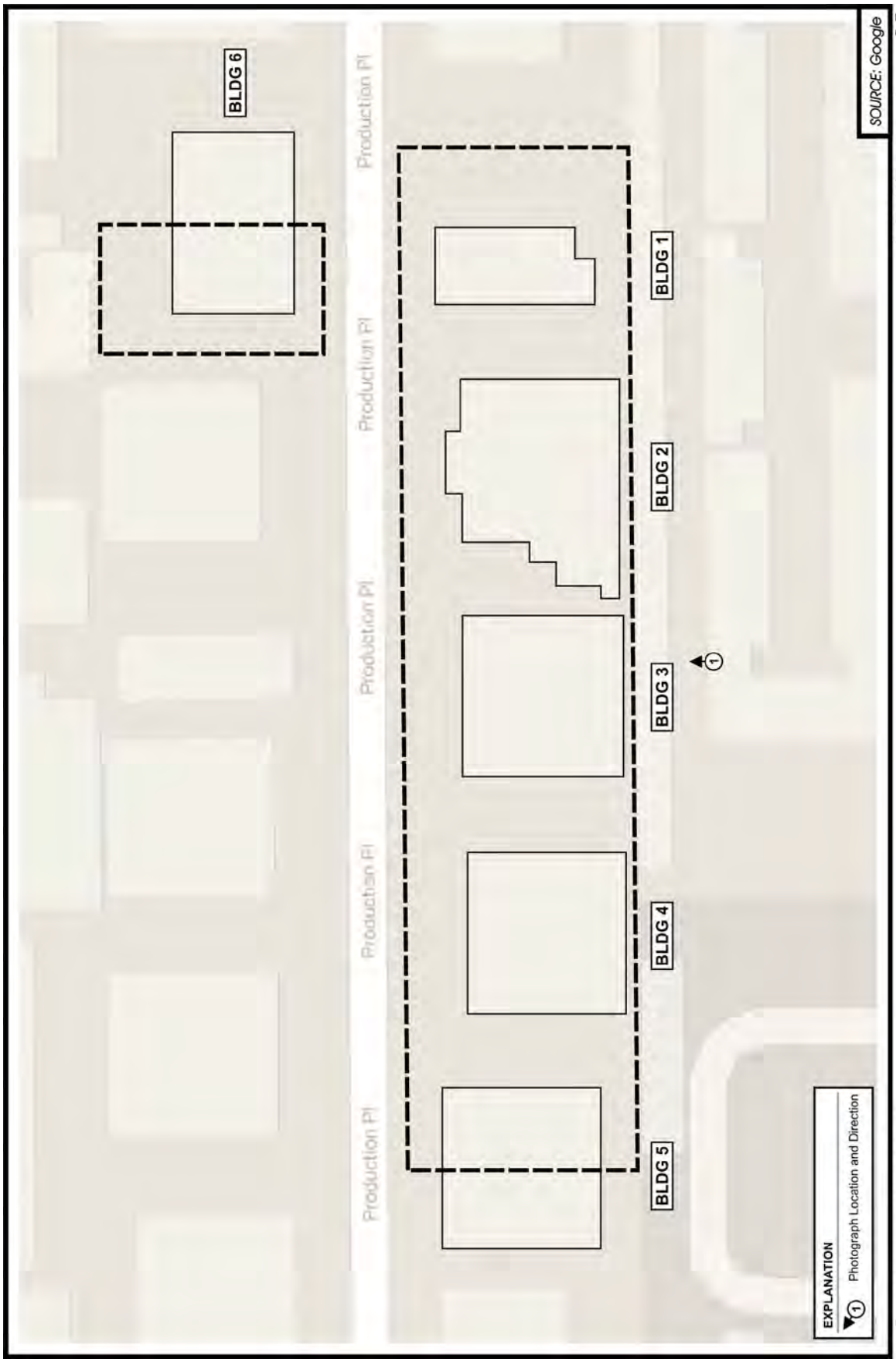
A project is generally considered to have a significant visual/aesthetic impact if it substantially changes the character of the project site such that is becomes visually incompatible or visually obtrusive when viewed in the context of its surroundings.

All project activities associated with the proposed project will take place within the boundaries of the existing Hixson Facility (see Figure 1-2). The proposed project modifications generally include the installation of PTE and air pollution control equipment. The total enclosure of buildings is not expected to result in visual impacts as the new walls and enclosures would be the same height as the existing buildings and are not expected to be visible to the public in general.

The installation of air pollution control equipment would result in the installation of additional structures and stacks/vents on the top of the Hixson Facility. While this equipment is generally compatible with the industrial nature of the Facility, the equipment would be visible from the apartment buildings immediately south of the Hixson Facility. Photos of the view from a representative second-story apartment to the south of the Facility were taken (see Figures 2-1 and 2-2). The proposed project will add additional industrial equipment to the roofs of Building 2, 3, and 4. An artistic rendering of the Facility following completion of the proposed project is shown in Figure 2-2. Compliance with the Newport Beach Municipal Code Section 20.30.020, requires that all new roof-mounted equipment be screened from public view and adjacent residential districts. The existing wooden fence-like screen on the roof of Building 3 serves two functions – aesthetic screening and sound dampening (see discussion under environmental topic "Noise"). The maintenance of the wooden fence-like screen (i.e., painting and repair/replacement of wood fencing) is necessary to maintain the visual quality of the view from the adjacent apartment. Additionally, ~~a~~ similar screens on Buildings 2 and 4 are ~~is~~ warranted to provide comparable screening of the proposed equipment to be located on the roofs of Buildings 2 and 4. Therefore, potentially significant visual impacts are expected from the proposed project and mitigation is necessary. The mitigation is described in the “Mitigation Measures” section below.

The proposed project would also result in the removal of eight ornamental trees from the Hixson property to provide access for the new electrical system. The removal of the trees is not expected to result in significant aesthetic impacts as the trees that will be removed are non-native (including queen palms) and will be replaced with drought tolerant landscaping. Further, trees on the City-owned parkway will remain so that the overall views of the Hixson property are not expected to be significantly altered due to the removal of the trees.

I. d) There are two primary sources of light in the project area: light emanating from building interiors that pass through windows and light from exterior sources (e.g., street lighting, outside security lights, landscape lighting, etc.). Depending upon the location of the light sources and its proximity to adjacent light-sensitive uses, light introduction can be a nuisance, affecting adjacent



PHOTOGRAPH LOCATION MAP
829 Production Place
Newport Beach, CA 92663

Environmental Audit, Inc.

Figure 2-1

Project No. 2960

N:\2960\Photograph Location.cdr

Environmental Audit, Inc.

COMPARISON OF EXISTING AND POST-PROJECT VIEWS
829 Production Place
Newport Beach, CA 92663

Project No. 2960

Figure 2-2

N:\2960\Photo Comparisons (rev.1).cdr

[This page intentionally left blank]

areas and diminishing views. The Newport Beach Municipal Code Section 20.30.070 requires lighting to be designed, shielded, aimed, located, and maintained to shield adjacent properties and to not produce glare onto adjacent properties or roadways. The Hixson site is located within a mixed use area of industrial, commercial and residential land uses. Existing lighting conditions include light emanating from the interior of the Hixson Facility, other adjacent industrial/commercial buildings, adjacent residential units, as well as street lighting. There are residential uses immediately south of the Hixson Facility.

In general, construction activities for the proposed project are not anticipated to require additional lighting because they are scheduled to take place primarily during daylight hours. So no increase in lighting is expected during construction activities. The proposed modifications to the Hixson Facility are not expected to result in an increase in light as the modifications would result in additional PTE and air pollution control equipment. Neither of these modifications would require additional light sources since the control equipment does not require additional lighting for operations and the PTEs are constructed in areas that already have lighting. Additional enclosures at the Facility would likely reduce the potential light spillage from existing light sources, reducing the potential for light nuisance on adjacent areas. Therefore, no light and glare impacts are expected from the proposed project.

Mitigation Measures

Potentially significant adverse impacts from the proposed project on aesthetics are expected, which may substantially degrade the existing visual character or quality of the site and its surroundings; therefore, mitigation measure AE-1 is required.

AE-1 ~~Maintain the approximately six-foot high wooden fence-like screen on the roof of Buildings 2 and 3 to be consistent in color to the building color of Buildings 2 and 3. The wooden fence-like screen should be kept in good condition and complete, sufficient to obscure industrial equipment from view of the adjacent second-story apartments.~~ Buildings 2, 3, and 4 shall provide a solid, sound-attenuating screen wall at a minimum height necessary to obscure roof-mounted mechanical equipment from view of the adjacent second-story apartments, as well as provide appropriate noise attenuation. The screen wall shall be textured and painted to be compatible with the architectural style, materials, and color of the building upon which the equipment is located and will be subject to the review and approval of the City of Newport Beach Community Development Department. See also Mitigation Measure N-7.

Implementation of mitigation measure AE-1 is expected to reduce the potentially significant visual impacts to less than significant.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
II.	**AGRICULTURE AND FORESTRY RESOURCES.** Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency, to non- agricultural use?	☐	☐	☐	☑
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104 (g))?	☐	☐	☐	☑
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☑

Significance Criteria

Project-related impacts on agriculture and forestry resources will be considered significant if any of the following conditions are met:

- The proposed project conflicts with existing zoning or agricultural use or Williamson Act contracts.

- The proposed project will convert prime farmland, unique farmland or farmland of statewide importance as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, to non-agricultural use.

- The proposed project conflicts with existing zoning for, or causes rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined in Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code § 51104 (g)).

- The proposed project would involve changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

Discussion

II. a), b), c), and d) The proposed project would not involve construction or operation outside of the existing boundaries of the Hixson Facility. The proposed project would be consistent with the commercial and industrial zoning. No agricultural or forest resources are present at or in the vicinity of the Facility. Therefore, the proposed project would not covert farmland to non-agricultural use or involve other changes in the existing environment that could convert farmland to non-agricultural use or conflict with agricultural land uses, or Williamson Act contracts. Additionally, the proposed project would not result in the loss of forest land or conversion of forest land to non-forest use. Finally, there is no conflict with existing zoning for agricultural or forest use nor would the proposed project require rezoning of agricultural or forest zoned areas.

Mitigation Measures

No significant adverse impacts from the proposed project on agricultural resources are expected, therefore, no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
III.	**AIR QUALITY AND GREENHOUSE GAS EMISSIONS**. Would the project:				
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
b)	Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☑	☐
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☑	☐
d)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☑	☐	☐
e)	Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☑
f)	Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	☐	☐	☑	☐
g)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☑	☐
h)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☑	☐

Significance Criteria

To determine whether or not air quality criteria pollutants, greenhouse gas (GHG), and toxic emission impacts from implementing the proposed project are significant, impacts will be evaluated and compared to the criteria in Table 2.5-1

TABLE 2.5-1

Air Quality and Greenhouse Gas (GHG) Significance Thresholds

Mass Daily Thresholds[a]		
Pollutant	**Construction[b]**	**Operation[c]**
NO_x	100 lb/day	55 lb/day
VOC	75 lb/day	55 lb/day
PM10	150 lb/day	150 lb/day
PM2.5	55 lb/day	55 lb/day
SOx	150 lb/day	150 lb/day
CO	550 lb/day	550 lb/day
Lead	3 lb/day	3 lb/day
Toxic Air Contaminants, Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk $\geq$ 10 in 1 million Chronic and Acute Hazard Index $\geq$ 1.0 (project increment) Cancer Burden $\geq$ 0.5 excess cancer cases (in areas $\geq$ 1 in 1 million)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000MT/yr CO_2e for industrial facilities	
Ambient Air Quality for Criteria Pollutants[d]		
NO_2 1-hour average annual average	In attainment; significant if project causes or contributes to an exceedance of any standard: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM10 24-hour annual average	10.4 $\mu g/m^3$ (construction)[e] and 2.5 $\mu g/m^3$ (operation) 1.0 $\mu g/m^3$	
PM2.5 24-hour average	10.4 $\mu g/m^3$ (construction)[e] and 2.5 $\mu g/m^3$ (operation)	
SO_2 1-hour average 24-hour average	0.255 ppm (state) and 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 $\mu g/m^3$ (state)	
CO 1-hour average 8-hour average	In attainment; significant if project causes or contributes to an exceedance of any standard: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day average Rolling 3-month average Quarterly average	1.5 $\mu g/m^3$ (state) 0.15$\mu g/m^3$ (federal) 1.5$\mu g/m^3$ (federal)	

a) Source: SCAQMD Air Quality Significance Thresholds, www.aqmd.gov/ceqa/handbook/signthres.pdf.
b) Construction thresholds apply to both the SCAB and Coachella Valley (Salton Sea and Mojave Desert Air Basin)
c) For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.
d) Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.
e) Ambient air quality threshold based on SCAQMD Rule 403.

KEY: ppm = parts per million; $\mu g/m^3$ = microgram per cubic meter; lb/day = pounds per day; MT/yr CO_2e = metric tons per year of CO_2 equivalents, NO_2 = nitrogen dioxide, $\geq$ greater than or equal to, > = greater than

Discussion

III. a) and f) The 2012 Air Quality Management Plan (AQMP) demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law (SCAQMD, 2013). Growth projections from local general plans adopted by cities in the district are provided to the Southern California Association of Governments (SCAG), the agency that develops regional growth forecasts, and they are then used to develop future air quality forecasts for the 2012 AQMP. Development consistent with the growth projections in the City of Newport Beach General Plan is considered to be consistent with the 2012 AQMP. The City of Newport Beach General Plan designates Hixson as industrial, so the proposed project is consistent with this land use. The proposed project would be consistent with the City of Newport Beach General Plan for the following reasons:

- As indicated in the Population and Housing and Transportation and Traffic sections, the construction workers are expected to be drawn from the existing labor pool in the southern California area.

- As indicated in the Population and Housing and Transportation and Traffic sections, the proposed project is not expected to require additional employees, so there would be no additional worker-related traffic generated during operation.

- Because the proposed project would not require additional workers during operations, it would not increase the demand for additional housing or recreational facilities.

Therefore, because the proposed project would not exceed growth projections in the City of Newport Beach General Plan and would not require a General Plan amendment, the proposed project would be considered consistent with the City of Newport Beach General Plan. Since the proposed project would be consistent with the City of Newport Beach General Plan, it would be consistent with the 2012 AQMP.

Additionally, the proposed project will be required to comply with applicable SCAQMD requirements for new stationary sources. Compliance with established rules ensures the integrity of the emission inventories in the 2012 AQMP. For example, new and modified emission sources associated with the proposed project would be subject to the SCAQMD Regulation XIII - New Source Review, will be required to be equipped with Best Available Control Technology (BACT), and will require Emission Reduction Credits (ERCs) to offset any emission increases greater than one pound per day. The proposed project will also be required to comply with prohibitory rules as well as a number of other federal, state and local air quality rules and regulations. Further, the modifications to the Facility are expected reduce the overall health risk and CrVI emissions at the Facility.

Based on the analysis above, the proposed project is not expected to conflict with or obstruct implementation of the applicable air quality plan or diminish an existing air quality rule or future compliance requirement resulting in a significant increase in any air pollutants.

III. b) The SCAQMD makes significance determinations for construction impacts based on the maximum or peak daily emissions during the construction period, which provides a "worst-case" analysis of the construction emissions.

Operationally, the proposed project has the potential to increase criteria pollutants, however, since the proposed project is a risk reduction plan, toxic air contaminants (TACs) emissions will decrease. To minimize potential emission increases, the proposed project will be required to comply with all relevant SCAQMD rules and regulations.

Construction Emission Impacts

Regional Impacts

Construction associated with the proposed project includes the installation of PTE in Building 2, Building 3, and Building 4, the installation of a PTE between Building 2 and 3, and the installation of eight new air pollution control devices (two downdraft tables, four particulate control systems, and two scrubbers) and associated ductwork, as well as tank covers, a new oven and a new spray booth. Construction emissions were calculated for peak day construction activities for each phase of construction activities The construction will consist of three types of activities; trenching for the upgraded electrical system, the staging of the rooftop equipment using a crane, and the installation of the equipment. Daily construction emissions were calculated for the peak day for each type of construction activity and are presented in Table 2.5-2. Peak day emissions are the sum of the highest daily emissions for each criteria pollutant from employee vehicles, soil removal, construction equipment, and transport activities for the construction period. Total peak construction emissions occur when Hixson will upgrade its electrical system, including cutting the foundation, exporting and importing soil, and installing about 1,000 linear feet of electrical lines. The electrical system upgrade will take place prior to other construction activities and will not overlap with construction of the proposed project. Detailed construction emissions calculations are provided in Appendix B.

TABLE 2.5-2

Hixson Metal Finishing
Peak Daily Construction Emissions
(lb/day)

Activity	VOC	CO	NOx	SOx	PM10	PM2.5[b]
Peak Construction Emissions[a]						
Construction Equipment	0.52	4.62	2.59	0.01	0.23	0.23
Vehicle Emissions	0.19	2.14	4.20	0.01	0.81	0.27
Total Emissions[b]	**0.71**	**6.76**	**6.79**	**0.02**	**1.04**	**0.50**
SCAQMD Threshold Level	75	550	100	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

(a) PM2.5 is determined using SCAQMD, 2006. Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 CEQA Significance Thresholds, SCAQMD, October 2006, http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/pm-2-5-significance-thresholds-and-calculation-methodology

(b) The emissions in the table may differ slightly from those in Appendix B due to rounding.

Construction Equipment

Construction emissions are expected from the following equipment and processes:

- Onsite Construction Equipment (crane, forklift, manlift, backhoe/loader, roller.);
- Onsite and Offsite Vehicle Emissions, including Delivery Trucks and Worker Vehicles;
- Onsite and Offsite Fugitive Dust Associated with Travel on Paved Roads.

On-site construction equipment would be one source of combustion emissions during construction. Construction equipment may include cranes, forklifts, manlifts, backhoe/loaders, and rollers. The construction schedule for the proposed project is planned for a single shift where equipment is assumed to operate eight hours per day and within the limits imposed by the City of Newport Beach Noise Ordinance (see discussion under environmental topic "Noise"). Construction workers may be at the site for longer than eight hours per day, including time for lunch and breaks, organization meetings, and so forth, but construction equipment would not be expected to operate the entire time. Emission factors for construction equipment were taken from the CARB OFF-ROAD 2011 Emissions model. Estimated emissions from construction equipment used for construction are included in Table 2.5-2.

Vehicle Emissions

Vehicle emissions include construction worker commute vehicles and delivery trucks. Primary emissions generated would include combustion emissions from engines during idling and while operating. Emissions are based on the estimated number of trips per day and the round trip travel distances.

Construction emissions include emissions from construction worker vehicles traveling to and from the work site. The peak manpower needed during the construction period is expected to be 15 workers (see Appendix B). Each worker commute vehicle is assumed to travel 14.7 miles (CalEEMod) to and from work each day, making two one-way trips per day (29.4 mile round trip). Emissions from employee vehicles are presented in Table 2.5-2. Emissions from employee vehicles were calculated using the CARB EMFAC2011 Emission model.

Medium-duty and heavy-duty diesel trucks used during construction include flatbed trucks and other delivery trucks. Primary emissions generated would include exhaust emissions from diesel engines while operating. Emissions from trucks (both medium-duty and heavy-duty) are calculated using the CARB EMFAC2011 Emission model. Estimated emissions for all trucks are included in Table 2.5-2.

Fugitive Dust Associated with Travel on Paved Roads

Vehicles and trucks traveling on paved roads, including public roads and roads on-site, are also a source of fugitive emissions during the construction period. Fugitive road dust emissions were calculated for vehicles traveling to the Facility, on-site cars, light-duty trucks, and buses. The analysis included the assumption that fugitive emissions from delivery trucks would travel on

paved roads (both public and on-site). Fugitive dust emissions caused by travel on paved roads were calculated using the U.S. EPA's, AP-42, Section 13.2.1 emission factor for travel on paved roads.

Construction Emission Summary

Construction activities associated with modifications to the Facility would result in emissions of volatile organic compounds (VOC), carbon monoxide (CO), nitrogen oxides (NOx), sulfur oxides (SOx), particulate PM10, and PM2.5. Construction emissions for the proposed project are summarized in Table 2.5-2, together with the SCAQMD's daily construction significance threshold levels. The construction phase of the proposed project is expected to be well below the applicable significance thresholds for all criteria pollutants for the proposed construction schedule. Therefore, unmitigated regional air quality impacts associated with construction activities are concluded to be less than significant.

Localized Air Quality Impacts During Construction

The SCAQMD has developed a Localized Significance Threshold (LST) Methodology to evaluate potential localized air quality impacts of criteria pollutants from construction and operational activities on sensitive receptors in the vicinity of a proposed project (SCAQMD, 2009). Therefore, the SCAQMD has required an LST analysis for CO, NO_2, PM10, and PM2.5 construction emissions associated with the proposed project. Potential air quality impacts from other criteria pollutants are regional in nature or in attainment and, therefore, are not required to be included as part of the localized air quality analysis. Pursuant to the SCAQMD's LST methodology, only onsite construction emissions sources were included in the LST analysis. The closest sensitive receptor is located within 25 meters to the south of the Facility.

The SCAQMD LST Methodology includes lookup tables that may be used to determine significance for projects with an area of five acres or less. Because the area of construction activities from the proposed project is less than an acre, the lookup tables used to determine significance are for a one-acre area. If the calculated emissions for the construction activity are below the emission level found in the LST lookup tables, localized air quality impacts from the construction activity are not considered significant. The LST lookup tables were developed using conservative assumptions, including the worst meteorological conditions in the district. If localized emissions exceed the values in the LST lookup tables, dispersion modeling, which is more precise, may be performed.

The Federal one-hour NO_2 ambient air quality standard was not analyzed because the federal standard is based on a three-year monitoring period. The proposed project construction period would be less than three years, lasting less than six months. Therefore, the state one-hour NO_2 ambient air quality standard is the appropriate standard for evaluating impacts from this proposed project. The SCAQMD LST tables are based on the state one-hour NO_2 ambient air quality standard.

The LST analysis (see Table 2.5-3) indicates that construction emissions of CO, NO_2, PM10, or PM2.5 from construction activities associated with the proposed project are not expected to exceed

the LST significance thresholds in Table 2.5-1. Therefore, the proposed project would not be expected to create any significant localized air quality impacts during construction.

TABLE 2.5-3

Localized Significance Threshold Screening Evaluation for Construction Emissions (lb/day)

Criteria Pollutant	CO	NOx	PM10	PM2.5
Peak Onsite Construction Emissions	4.63	2.61	0.24	0.23
LST Value[(a)]	647	92	4	3
Significant?	No	No	No	No

(a) Appendix C of the SCAQMD Final LST Methodology (Oct. 2009). SRA #18 with the nearest receptor located at 25 meters.

Operational Emission Impacts

As outlined in the project description, the proposed project will construct four PTEs, install two new downdraft tables, two particulate control devices, and install four new scrubbers that will reduce the total CrVI emissions at the Facility. The new acid scrubber and mist eliminator could require up to 83 caustic deliveries per year that will generate some additional emissions on an annual basis, but will not change the peak daily emissions because the Facility already receives caustic deliveries. Some equipment, such as tanks, ovens, and spray booths, will be relocated and/or modified to reduce fugitive emissions which should enhance the effectiveness of the new PTEs, new filtration systems, and new scrubbers. The modifications to the existing paint booths and ovens are expected to reduce the production level of the Facility; therefore, a new paint booth and one new curing oven will also be installed to maintain the current production levels. Since there will be no increase in production, the only additional operational emissions are expected from the new oven (Oven 14). A detailed analysis of the operational emission is discussed below.

Chromium Particulate Matter (PM) Emissions

A new PTE will be constructed in Building 2, Building 3, between Building 2 and 3, and in Building 4. The PTEs will contain the fugitive emissions within the building, which will reduce fugitive CrVI PM emissions that currently escape through openings in the buildings at the Facility. The fugitive PM emissions that are trapped by the PTEs in the buildings will be routed to new filtrations systems. The ULPA filtration systems capture 99.999% of CrVI emissions. Further, the filtrations systems do not generate any additional criteria pollutants because they are control equipment with no combustion sources or chemical additives.

Currently, demasking operations occur in an uncontrolled environment in Buildings 3 and 4. Sanding and scuffing operations currently vented to HEPA filtrations and demasking operations will be vented to new HEPA controlled tables and relocated within Building 4, which would reduce overall emissions in Buildings 3 and 4. Further, storage of waste will be relocated from between Buildings 3 and 4, into Building 4, which will be ULPA controlled, reducing emissions.

Emissions Related to Caustic Solutions

The Facility currently uses caustic solutions and no new caustic storage will be required. Caustic solution does not contain VOCs and has a low vapor pressure; therefore, does not generate emissions. However, the Facility will use up to 109,325 gallons of caustic solutions per year, delivered by 83 trucks. Since the Facility already receives caustic solution deliveries, the number of daily delivery trucks to the Facility will not change. Therefore, peak daily emissions from delivery trucks will not increase.

Combustion Sources

One new oven (Oven 14) will be installed in Building 4. The new oven will be installed to maintain the current production levels due to reduced capacity of existing equipment from modifications to comply with the RRP. As shown in Table 2.5-4, the expected VOC, CO, NOx, SOx, PM10, and PM2.5 emissions are well below the SCAQMD significance thresholds (see Appendix B for detailed emission calculations).

TABLE 2.5-4

Hixson Metal Finishing
Peak Daily Combustion Emissions
(lb/day)

Combustion Equipment	VOC	CO	NOx	SOx	PM10	PM2.5
New Oven (Oven 14)	0.07	0.33	1.22	0.01	0.07	0.07
Total Emissions	**0.07**	**0.33**	**1.22**	**0.01**	**0.07**	**0.07**
SCAQMD Threshold Level	55	550	55	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Spray Booths

One new spray booth will be installed in Building 4. The new spray booth will be installed to maintain the current production levels due to reduced capacity of existing equipment from modifications to comply with the RRP. Since no increase in production is expected, no new operational emissions are expected to occur. A permit limit condition will be imposed to ensure no increase in emissions.

Operational Emissions Summary

The operation of the proposed project is expected to slightly increase daily CO, VOC, NOx, SOx, PM10, and PM2.5 emissions from the natural gas combustion in the new oven (Oven 14), but is considered less than significant (see Table 2.5-4). Furthermore, the proposed project is an emission reduction project for TACs, and is not expected to exceed any of the SCAQMD's applicable operational significance thresholds. Therefore, potential air quality impacts associated with operational emissions from the proposed project are expected to be less than significant.

CO Hot Spots

The potential for high concentrations of CO emissions associated with truck/vehicle traffic was considered and evaluated per the requirements of the SCAQMD CEQA Air Quality Handbook (SCAQMD, 1993). The Handbook indicates that any project that could negatively impact levels of service at local intersections may create a CO hot spot and should be evaluated. No changes in level of service are expected from the proposed project during construction or operation (see discussion under environmental topic "Transportation and Traffic"). Therefore, no significant adverse impacts to ambient air quality due to the traffic impact at the intersection in the vicinity of the proposed project are expected. Since the proposed project emissions do not exceed the SCAQMD CEQA thresholds of significance, the impact is less than significant and no mitigation is required.

III. c) Cumulative Impacts

As Lead Agency, the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an ND, MND, or EIR. Impacts are considered to be cumulatively considerable if they exceed the project-specific air quality significance thresholds (SCAQMD, 2003).

Construction emissions for the proposed project are expected to be less than the construction significance thresholds. Therefore, construction emissions are not considered to be cumulatively considerable and cumulatively significant.

The operation of the proposed project is expected to slightly increase daily CO, VOC, NOx, SOx, PM10, and PM2.5 emissions, but is considered less than significant. Furthermore, the proposed project is an emission reduction project for TACs, and is not expected to exceed any of the SCAQMD's applicable operational significance thresholds. Therefore, project-specific air quality impacts associated with operational emissions from the proposed project are not considered to be cumulatively considerable and, therefore, do not contribute to significant adverse cumulative air quality impacts.

Therefore, the construction and operational emissions from the proposed project are not considered to contribute to significant adverse cumulative construction or operational impacts. This conclusion is consistent with CEQA Guidelines §15064(h)(4), which states, "The mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable."

III. d) Toxic Air Contaminants

<u>Construction</u>

The Facility operations generate chromium emissions that may settle in construction areas. Chromium emissions have long-term health risk. During the diverse activities that will occur during construction, these areas may be disturbed and there may be fugitive dust emissions that

contain CrVI. It is not technically possible to quantitatively determine the exact level of CrVI emissions from this activity due to an uncertain amount of CrVI present on work surfaces, uncertain amounts of disturbance during construction activities, and very low levels of exposure that can cause health impacts coupled with high levels of uncertainty in traditional construction fugitive dust calculations. Because of these uncertainties, and because fugitive CrVI emissions have long-term health risk, unmitigated fugitive CrVI emissions generated by construction activities have the potential to generate potentially significant adverse health risks and mitigation mearusre are required to reduce this potentially significant impact. The mitigation is described in the "Mitigation Measures" section below.

Operational

In November 2014, under the requirements of Air Toxics "Hot Spots" Information and Assessment Act (AB2588), Hixson prepared and submitted a HRA using 2013 emissions data supplemented with data from monitoring stations near the Facility. Assuming a lifetime of exposure at the emissions level from 2013, the resulting cancer risk was 1,502 cancer cases per one million at the maximally exposed individual resident (MEIR), 88 cancer cases per one million at the maximally exposed individual worker (MEIW), and a cancer burden of 1.09 (using 2015 OEHHA methodology). The Maximum Chronic Hazard Index (MCHI), Maximum 8-hour Chronic Hazard Index (MCHI 8), and Maximum Acute Hazard Index (MAHI) for the 2013 emissions were 0.07, 0.001, and 0.15, respectively. At the MEIR, 98 percent of the calculated cancer risk was due to CrVI emissions and two percent were due to cadmium emissions. Further, 99 percent of the cancer risk is from fugitive emission sources. However, since 2013, Hixson has made and implemented several changes to equipment and operations to reduce the health risk at the Facility. Based on reductions in levels of CrVI emissions recorded at the monitors near the Hixson Facility and assuming a lifetime exposure to emission levels since early 2014, the maximum health risks are approximately 75 percent lower compared to 2013 levels (SCAQMD, 2015). This is equivalent to a maximum residential cancer risk of approximately 350 per one million. This is the baseline cancer risk for the proposed project.

In order to reduce health risk from the Facility's emissions, the proposed project will relocate equipment and construct PTEs to contain fugitive CrVI emissions and install filtration systems to capture fugitive CrVI emissions from the PTEs.

A post-implementation health risk assessment (HRA) was prepared in the RRP to determine the health risk of TAC emissions reductions from the proposed project (see Appendix C). The following subsections outline health risks from exposure to TAC emissions by onsite and offsite receptors associated with the proposed RRP. The HRA, summarized herein for the proposed project, includes an evaluation of Facility-wide emissions under the RRP. For this analysis, the emissions from the new ovens are equivalent to the existing ovens to present a conservative analysis. Therefore, the combined risk provides a conservative analysis for health risk impacts from the proposed project.

When approving the RRP, SCAQMD staff conducted a sensitivity analysis to determine the potential impact if fugitive emissions are higher than estimated in the HRA conducted for the RRP. This sensitivity analysis assumed that up to 5 percent of emissions from the anodizing and plating

lines were released as fugitive emissions and were filtered through the wet scrubber with a mesh pad that controls general room air emissions, and not through the ULPA filters that control emissions from the production lines themselves. The wet scrubber with mesh pad was conservatively assumed to have only a 45 percent control efficiency, while the ULPA filters have an efficiency of 99.999 percent. An existing soil vapor extraction (SVE) system, installed at the direction of the DTSC to address historical soil contamination, is permitted by the SCAQMD and is undergoing a permit revision and was included in the Post-Implementation HRA risk values presented in Table 2.5-5. Additionally, the risks from an additional SVE system being constructed at the Hixon facility have also been included in Table 2.5-5. Under this scenario, total Facility-wide cancer risk would be 17.9 cancer cases per one million at the resident. A summary of the history of health risk is presented in Table 2.5-5.

TABLE 2.5-5

History of Health Risk

Scenario	MEIR	MEIW	MCHI	MCHI 8	MAHI
2013 HRA	1.50×10^{-3}	8.8×10^{-5}	0.04	0.001	0.15
Baseline HRA	$\sim 3.50 \times 10^{-4}$	$\sim 2.2 \times 10^{-5}$	0.01	0.0003	0.04
Post-Implementation HRA[(a)]	~~1.79~~2.07 x 10^{-5}	~~2.12~~1.58 x 10^{-6}	0.01	0.00009	0.009
Incremental Health Risk	-3.~~32~~ 29 x 10^{-4}	-~~1.99~~2.04 x 10^{-5}	0.00	-0.0002	-0.031

(a) Based on SCAQMD HRA and permit applications for the new SVE and modifications to the existing SVE systems.

HRA Methodology

The HRA for the proposed project was prepared in accordance with the 2015 Office of Environmental Health Hazard Assessment (OEHHA) Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments (OEHHA, 2015). The HRA includes a comprehensive analysis of the dispersion of specified AB2588-listed compounds into the environment, the potential for human exposure, and a quantitative assessment of individual health risks associated with the predicted levels of exposure. CARB Hotspots Analysis Reporting Program Model 2 (HARP2) is the most appropriate model for determining the air quality impacts from the proposed project. The HARP2 model is well suited for industrial modeling since it can accommodate multiple sources and receptors. The HARP2 model combines the U.S. EPA AERMOD air dispersion model with a risk calculation model based on the Air Toxics Hot Spots Program Risk Assessment Guidelines (OEHHA, 2015). As can be seen from Table 2.5-5, implementing the RRP will reduce MEIR to ~~17.9~~20.7 cancer cases per one million.

Hazard Identification

Operation of the Facility generates various toxic air contaminants. Some of these chemical compounds are potentially carcinogenic, or potentially toxic or hazardous depending on concentration or duration of exposure. Numerous federal, state, and local regulatory agencies have developed lists of TACs. The list of potentially-emitted substances considered in the preparation

of an HRA is identified in Appendix A-I of the CARB AB2588 requirements and by OEHHA. The AB2588 TACs emitted from the proposed project are shown in Appendix C of this ~~Draft~~ Final MND. Some of these pollutants were consolidated into one category, e.g., polycyclic aromatic hydrocarbons (PAHs). Health effects data are not available for all compounds. However, a total of 21 TACs were included in the air dispersion modeling (see Appendix C). For carcinogens, cancer slope factors were used to compute cancer risk through inhalation. If the carcinogen is a multi-pathway pollutant, a potency slope was used for estimation of risk from non-inhalation pathways. For non-cancer health effects, reference exposure levels (REL) and acceptable oral doses (for multi-pathway pollutants) were used. The non-carcinogenic hazard indices were computed for chronic and acute exposures with their respective toxicological endpoints shown.

Post-Implementation Health Risk Analysis

As part of the on-going soil cleanup overseen by DTSC, a second soil vapor extraction system will be installed and permitted by the SCAQMD. The second soil vapor extraction system is expected to increase the Post-Implementation Health Risk by a maximum of 0.419 cancer cases per one million at the MEIR and 0.0677 cancer cases per one million at the MEIW. In addition, modifications to the existing SVE system are being proposed which is expected to increase the Post-Implementation Health Risk by maximum of 0.902 cancer cases per one million at the MEIR and 0.0576 cancer cases per one million at the MEIW. The cancer risk associated with the soil vapor extraction systems is included in Table 2.5-5.

Under the post-implementation operations the cancer risk would be further reduced to ~~17.9~~20.7 cancer cases per one million at the MEIR and ~~2.12~~1.58 cancer cases per one million at the MEIW. The MCHI, MCHI 8, and MAHI remained less than significant at 0.01, 0.00009, and 0.009, respectively. As previously mentioned, the RRP will reduce overall health risk at the Facility, therefore, the incremental change in health risk values from the proposed project are a health benefit, and below the CEQA threshold for both long-term and short-term health risks, therefore, the health risk is less than significant (see Table 2.5-6).

TABLE 2.5-6
Health Risk Analysis

Scenario	MEIR	MEIW	MCHI	MCHI 8	MAHI
Incremental Health Risk	-3.32×10^{-4}	-1.99×10^{-5}	0.00	-0.0002	-0.031
Significance Threshold	10×10^{-6}	10×10^{-6}	1.0	1.0	1.0
Significant?	No	No	No	No	No

Note: Negative numbers indicate a reduction to health risk.

Summary of Health Impacts

The health impacts related to air quality impacts have been evaluated in several ways. First, the short-term air quality impacts related to construction emissions were evaluated by comparing the peak day construction emissions to the SCAQMD mass daily significance thresholds. In the short-term, the air quality impacts related to construction emissions would not exceed the SCAQMD's

construction significance thresholds for all criteria and VOC pollutants analyzed, so it was concluded that the proposed project would generate less than significant air quality impacts. In order to evaluate the localized air quality impacts from construction emissions to nearby sensitive receptors, a LST analysis was also completed. The results of the LST analysis indicated that the short-term construction emissions would be below the applicable LST significance thresholds. The LST significance thresholds are based on the most stringent ambient air quality standard applicable for the exposures duration related to construction activities for NO_2, which are based on health effects. The LSTs for PM10 and PM2.5 were derived based on fugitive dust control requirements in SCAQMD Rule 403, which are indirectly based on the state PM10 standard. Since construction of the proposed project is short-term and would not exceed the applicable LST significance thresholds for localized air quality impacts, no significant adverse health impacts associated with construction emissions are expected. The impacts from operation would not exceed the SCAQMD's operational significance thresholds for all criteria and VOC pollutants analyzed and were also concluded to be less than significant. The proposed project is not expected to generate any additional onsite criteria pollutant emissions, therefore, no LSTs or ambient air quality standards, which are health-based standards, were analyzed. The primary health effects associated with exposure to NO_2, CO, PM10, and PM2.5 are respiratory impacts including decreased lung function, aggravation of chronic respiratory condition, and aggravation of heart disease conditions. No such adverse health impacts are expected during the construction or operation of the proposed project.

The long-term air quality impacts from exposure to toxics during operation were evaluated through the preparation of an HRA. The HRA evaluated the emissions associated with the operation of the proposed project to derive cancer and non-cancer health risk values, which were then compared to carcinogenic and non-carcinogenic significance thresholds. As demonstrated in the HRA, the carcinogenic and non-carcinogenic impacts for all receptors are expected to be reduced. Therefore, no significant adverse carcinogenic or non-carcinogenic health risk impacts associated with the operation of the proposed project are expected.

III. e) Odors

Odors are typically associated operations such as domestic waste treatment processing, animal product processing, and certain chemical manufacturing, as well as sulfur-bearing compounds such as hydrogen sulfide. The proposed project does not have operations that typically generate odors. Therefore, the proposed project is not expected to create significant objectionable odors, neither during construction nor during operations. Thus, no significant odor impacts are expected from constructing and operating the proposed project.

III. g) and h) Greenhouse Gases

Changes in global climate patterns have been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, recently attributed to accumulation of GHG emissions in the atmosphere. GHGs trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through the combustion of fossil fuels (i.e., fuels containing carbon) in

conjunction with other human activities, appears to be closely associated with global warming (Solomon et al., 2007). State law defines GHG to include the following: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6) (HSC §38505(g)). The most common GHG that results from human activity is CO_2, followed by CH_4 and N_2O.

GHGs and other global warming pollutants are perceived as global in their impacts and that increasing emissions anywhere in the world contributes to climate change anywhere in the world. However, a study conducted on the health impacts of CO_2 "domes" that form over urban areas concludes that they can cause increases in local temperatures and local criteria pollutants, which have adverse health effects (Jacobson, 2010).

The analysis of GHG emissions is a different analysis than for criteria pollutants for the following reasons. For criteria pollutants, significance thresholds are based on daily emissions because attainment or non-attainment is primarily based on daily exceedances of applicable ambient air quality standards. Further, several ambient air quality standards are based on relatively short-term exposure effects to human health (e.g., one-hour and eight-hour standards). Since the half-life of CO_2 is approximately 100 years, for example, the effects of GHGs occur over a longer term which means they affect the global climate over a relatively long time frame. As a result, the SCAQMD's current position is to evaluate the effects of GHGs over a longer timeframe than a single day (e.g., annual emissions). GHG emissions are typically considered to be cumulative impacts because they contribute to global climate change.

On December 5, 2008, the SCAQMD adopted an interim CEQA GHG Significance Threshold for projects where SCAQMD is the lead agency (SCAQMD, 2008). This interim threshold is set at 10,000 metric tons of CO_2 equivalent emissions (MTCO2e) per year. Projects with incremental increases below this threshold will not be cumulatively considerable.

GHG emission impacts from implementing the proposed project were calculated at the project-specific level for construction and operation as explained in the following paragraphs.

Sources of GHG emissions from construction equipment were assumed to include cranes, forklifts, manlifts, backhoe/loaders, and rollers. In addition, the equipment is assumed to be operational up to 8 hours per day during most of the construction period. Construction workers may be at the site for longer than eight hours per day, but including time for lunch and breaks, organization meetings, and so forth, construction equipment would not be expected to operate the entire time. Emissions for construction equipment were calculated based on fuel use derived from the CARB Off-ROAD 2011 model and CARB default GHG emission factors for diesel fuel. The SCAQMD significance threshold for GHG emissions combines construction emissions amortized over 30 years with operational emissions. The total GHG construction emissions associated with the proposed project are estimated to be 15 MTCO2e over the entire construction period, or 0.5 MTCO2e per year amortized over 30 years with operational emissions.

The new oven (Oven 14) is expected to emit a maximum of 186.1 metric tons per year. The operation of the proposed project is expected to increase the electrical demand at the Facility by approximately 1,347 megawatts per year. The total increase in GHG emissions from electricity is

approximately 387 $MTCO_2eq$ per year. The operation of the new scrubbers will require 83 additional delivery truck trips per year. The total increase in GHG emissions from delivery trucks is approximately 6 MTCO2e per year.

The total GHG emissions associated with the proposed project, including the 30-year amortized construction GHG emission, is 579 $MTCO_2eq$ per year, which is below the GHG significance threshold of 10,000 $MTCO_2eq$ per year. Therefore, the GHG impacts associated with the proposed project are considered less than significant. Estimated GHG emissions from the proposed project are included in Table 2.5-7, with more detailed calculations in Appendix B.

TABLE 2.5-7

Estimated GHG Emissions for the Proposed Project

Source	CO2e[(a)] (MT/yr)
Construction[(b)]	<1
Operational – Oven 14	186
Operational – Electricity	387
Operational – Deliveries	6
TOTAL	**579**
Significance Threshold	10,000
Significant?	**NO**

(a) CO_2 equivalent emissions or CO2e; MT/yr = metric tons per year.
(b) Construction GHGs are amortized over 30 years.

Since GHG emissions have global consequences in concert with other activities causing GHG emissions, the impacts from GHGs are considered to be cumulative impacts. Those impacts are cumulatively considerable if they exceed the GHG significance threshold of 10,000 MTCO2e per year. Since the GHG emissions for the proposed project will not exceed the SCAQMD GHG significance threshold, they are not considered to be cumulatively considerable and, therefore, are not considered to contribute to cumulative GHG impacts. With regard to effects of other projects, the conclusion is consistent with CEQA Guidelines §15064 (h)(4), which states, "The mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable."

Based on the preceding analysis, implementing the proposed project is not expected to generate significant adverse cumulative GHG air quality impacts.

Mitigation Measures

Construction

The unmitigated proposed project is expected to have potentially significant adverse air quality impacts from TACs during the construction phase. Therefore, the following mitigation measure

will be imposed on the project to reduce fugitive TAC emissions associated with construction activities.

AQ-1 All onsite personnel, including employees and any others working on-site during project construction, must adhere to all provisions within the attached Dust ~~Mitigation~~ Minimization Plan (See Appendix A).

The Dust ~~Mitigation~~ Minimization Plan requires temporary total enclosures ~~PTEs~~, which are expected to be constructed of polyvinyl chloride (PVC) piping draped with covered sheeting. Construction of the temporary total enclosures ~~PTEs~~ is expected to be accomplished using hand tools and is not expected to require diesel-powered construction equipment. Therefore, no construction-related emissions are expected. Additional Dust ~~Mitigation~~ Minimization Plan components involve the use of damp or wet wiping or mopping, which is not expected to generate emissions, and the use of a HEPA vacuum to remove dust from flat surfaces. The HEPA vacuum is expected to reduce the fugitive emissions from flat surfaces. Fugitive TAC emissions during construction of the proposed project are expected to be mitigated to less than significant. Therefore, no significant adverse impact from CrVI dust during construction of the proposed project is expected.

Operational

No significant adverse impacts from the operation of the proposed project are expected; therefore, no mitigation measures on operational emissions are required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IV.	**BIOLOGICAL RESOURCES.** Would the project:				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
c)	Have a substantial adverse effect on federally protected wetlands as defined by §404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☑
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☑	☐	☐
e)	Conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
f)	Conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑

Significance Criteria

The impacts on biological resources will be considered significant if any of the following criteria apply:

- The project results in a loss of plant communities or animal habitat considered to be rare, threatened or endangered by federal, state or local agencies.
- The project interferes substantially with the movement of any resident or migratory wildlife species.
- The project adversely affects aquatic communities through construction or operation of the project.

Discussion

IV. a), **b), c), d), e) and f)** The proposed project would be located in a fully developed area, and within the boundaries of an existing industrial facility. Hixson has been fully developed and is essentially void of vegetation with the exception of some landscape vegetation on the northern boundary of the property. All native habitats have long since been removed from the site. The proposed project does not include the acquisition of additional land for use by the Facility or expansion outside of the Facility's current boundaries, which further eliminates the potential for biological resource impacts. The proposed project would result in the removal of approximately eight ornamental trees from the Hixson property to provide access for the new electrical system. The removal of the ornamental trees is not expected to result in significant biological impacts as the trees that will be removed are non-native (including queen palms) and will be replaced with drought tolerant landscaping. Further, removal of the ornamental trees would not conflict with the provision of a Habitat Conservation Plan or other similar plan.

However, the removal of the ornamental trees would have the potential to impact migratory bird species that could be nesting in trees at the time of tree removal. Therefore, compliance with the Migratory Bird Treaty Act (MBTA) is required and mitigation measure BIO-1 has been imposed.

The proposed project would not have an adverse effect, either directly or indirectly or through habitat modifications, on any sensitive biological species, riparian habitat, or other sensitive natural habitat because no flora or fauna of this type is located on or adjacent to the Hixson Facility. The proposed project would not result in the addition or the elimination of water ponds that could be used by animals or migratory fowl. Further, the proposed project would not adversely affect federally protected wetlands as defined in §404 of the Clean Water Act as there are none on or adjacent to Hixson. As previously discussed, the Facility is fully developed and no rare, endangered, or threatened species exist at the Facility. There is no significant plant or animal migration corridors that would be adversely affected by the proposed project. Because the area in and near the Facility is devoid of native habitat, impact to other, non-listed species are not expected. Based on the above, no significant adverse impacts on biological resources are expected from the proposed project, with the possible exception of migratory birds.

Mitigation Measures

The following mitigation measure is required to mitigate the potential impacts on nesting birds prior to tree removal.

BIO-1 Tree removal activities shall occur outside of the bird nesting season (February 1st to August 31st). If it is determined necessary for tree removal activities to occur between February 1st and August 31st, a preconstruction nesting bird survey shall be conducted by a qualified biologist within seven days prior to any tree removal activities. Any active nests identified shall have a buffer area established within a 100-foot radius (200-foot for birds of prey) of one active nest. Disturbance shall not occur within the buffer area until the qualified biologist determines that the young have fledged. Demolition and construction activity may only occur within the buffer area at the discretion of the qualified biologist.

Implementation of BIO-1 is expected to reduce the potential impacts of the proposed project to less than significant.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
V.	**CULTURAL RESOURCES.** Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☑
b)	Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	☐	☐	☐	☑
c)	Directly or indirectly destroy a unique paleontological resource, site, or feature?	☐	☐	☐	☑
d)	Disturb any human remains, including those interred outside formal cemeteries?	☐	☐	☐	☑
e)	Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code §21074?	☐	☐	☐	☑

Significance Criteria

Impacts to cultural resources will be considered significant if:

- The project results in the disturbance of a significant prehistoric or historic archaeological site or a property of historic or cultural significance, or tribal cultural significance to a community or ethnic or social group or a California Native American Tribe.

- Unique paleontological resources or objects with cultural value to a California Native American tribe are present that could be disturbed by construction of the proposed project.

- The project would disturb human remains.

Discussion

V. a) CEQA Guidelines §15064.5 states that resources listed in the California Register of Historical Resources or in a local register of historical resources are considered "historical resources."

CEQA Guidelines state that "generally, a resource shall be considered 'historically significant' if the resource meets the criteria for listing in the California Register of Historical Resources including the following:

a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

b) Is associated with the lives of persons important in our past;

c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values;

d) Has yielded or may be likely to yield information important in prehistory or history" (CEQA Guidelines §15064.5).

Generally, resources (buildings, structures, equipment) that are less than 50 years old are excluded from listing in the National Register of Historic Places[1] unless they can be shown to be exceptionally important). The buildings, structures, and equipment associated with the proposed project are not listed on registers of historic resources and nor are they identified as containing historical resources according to General Plan EIR Figure 4.4-1 (Newport Beach, 2006), and do not meet any of the eligibility criteria presented above (e.g., associated with historically important events or people, embodying distinctive characteristics of a type, period, or method of construction), and would not be likely to yield historically important information. The only components of the proposed project that are being removed are industrial equipment such as storage tanks. None of these structures meet the aforementioned historical significance criteria. Therefore, no significant adverse impacts to historic cultural resources are expected as a result of implementing the proposed project.

V. b), c), and d) All construction and operational activities that would occur as a result of the proposed project will occur within the existing industrial facility, which has already been graded and developed. The proposed project would be consistent with the industrial zoning.

The probability that construction of the proposed project would impact any cultural resources or human remains is extremely low, given the degree of past disturbance of the site for industrial development. The Hixson site consists of, and is surrounded by, developed land that has been permanently altered due to construction of below and aboveground improvements (buildings, utilities, streets, driveways, etc.). Further, the proposed project includes the installation of PTE and air pollution control equipment. Additional grading of the site is not expected to be required.

In the unlikely event that excavation should be required, any impact to cultural resources would be eliminated by using standard construction practices and complying with state law including Public Resources Code § 21083.2 and CEQA Guidelines §15064.5, which require the following, in the event that unexpected sub-surface resources were encountered:

[1] The eligibility criteria of the California Register criteria are modeled on those of the eligibility criteria of the National Register of Historic Places.

- Conduct a cultural resources orientation for construction workers involved in excavation activities. This orientation will show the workers how to identify the kinds of cultural resources that might be encountered, and what steps to take if this occurred;

- Monitoring of subsurface earth disturbance by a professional archaeologist and a Native American representative if cultural resources are exposed during construction;

- Provide the archaeological monitor with the authority to temporarily halt or redirect earth disturbance work in the vicinity of cultural resources exposed during construction, so the find can be evaluated and mitigated as appropriate; and,

- As required by State law in Public Resources Code §§ 5097.94 and 5097.98, prevent further disturbance if human remains are unearthed, until the County Coroner has made the necessary findings with respect to origin and disposition, and the Native American Heritage Commission has been notified if the remains are determined to be of Native American descent.

V. e) The proposed project is not expected to require physical changes to a site, feature, place, cultural landscape, sacred place or object with cultural value to a California Native American Tribe. Furthermore, the proposed project is not expected to result in a physical change to a resource determined to be eligible for inclusion or listed in the California Register of Historical Resources or included in a local register of historical resources. For these reasons, the proposed project is not expected to cause any substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code §21074.

It is important to note that as part of releasing this CEQA document for public review and comment, the SCAQMD also provided a formal notice of the proposed project to all California Native American Tribes (Tribes) that requested to be on the Native American Heritage Commission's (NAHC) notification list per Public Resources Code §21080.3.1 (b)(1). The NAHC notification list provides a 30-day period during which a Tribe may respond to the formal notice, in writing, requesting consultation on the proposed project.

In the event that a Tribe submits a written request for consultation during this 30-day period, the SCAQMD will initiate a consultation with the Tribe within 30 days of receiving the request in accordance with Public Resources Code §21080.3.1 (b). Consultation ends when either: 1) both parties agree to measures to avoid or mitigate a significant effect on a Tribal Cultural Resource and agreed upon mitigation measures shall be recommended for inclusion in the environmental document [see Public Resources Code §21082.3 (a)]; or, 2) either party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached [see Public Resources Code §21080.3.2 (b)(1)-(2) and §21080.3.1 (b)(1)].

Based upon these considerations, significant adverse cultural resources impacts are not expected from implementing the proposed project, and thus, this topic will not be further analyzed. Since no significant cultural resources impacts were identified, no mitigation measures are necessary or required.

Mitigation Measures

No significant adverse impacts from the proposed project on cultural resources are expected, therefore, no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VI.	**ENERGY.** Would the project:				
a)	Conflict with adopted energy conservation plans?	☐	☐	☐	☑
b)	Result in the need for new or substantially altered power or natural gas utility systems?	☐	☐	☑	☐
c)	Create any significant effects on local or regional energy supplies and on requirements for additional energy?	☐	☐	☑	☐
d)	Create any significant effects on peak and base period demands for electricity and other forms of energy?	☐	☐	☑	☐
e)	Comply with existing energy standards?	☐	☐	☐	☑

Significance Criteria

The impacts to energy resources will be considered significant if any of the following criteria are met:

- The project conflicts with adopted energy conservation plans or standards.
- The project results in substantial depletion of existing energy resource supplies.
- An increase in demand for utilities impacts the current capacities of the electric and natural gas utilities.
- The project uses non-renewable resources in a wasteful and/or inefficient manner.

Discussion

VI. a) and e) The proposed project is not expected to conflict with an energy conservation plan or energy standards. The proposed project is not expected to conflict with an adopted energy conservation plan because there are no known plans that would be impacted by the proposed project. The proposed project is expected to require an additional 154 kilowatts (KW) of electricity to operate six blowers ranging in size from 10.0 horsepower (hp) to 40.0 hp and two 2.0-hp pumps. New blowers and motors will be more efficient than older similar equipment. Therefore, new equipment will comply with current energy standards.

VI. b), c), and d) An incremental increase of up to 882 of gasoline and 881 gallons of diesel usage would occur during construction activities (e.g., operation of construction equipment, material

delivery trucks, and worker commute vehicles). In 2012, the Los Angeles/Orange County region used 13.2 million gpd or about 4,806 million gallons per year of gasoline (CEC, 2012) and 0.8 million gpd or about 290 million gallons per year of diesel (CEC, 2012a). The gasoline and diesel associated with construction of the entire project of represent about 0.00001 percent and 0.0002 percent, respectively, of the yearly demand in the Los Angeles/Orange County region, and a tiny fraction of the total use of fuel in California. Therefore, gasoline and diesel fuel usage for project construction is not considered a significant adverse impact or a wasteful use of energy resources.

Electrical power may be required for certain construction equipment, e.g., lights, welders, etc. However, most of the construction equipment is operated using gasoline and diesel fuels. The electricity requirement for the construction phase is expected to be within the normal electricity usage of the Facility since the electric tools require minimal electricity (about 35-50 horsepower). This requirement can be met with the existing electrical capacity so no significant adverse impact on electricity is expected due to construction activities.

No significant increase in natural gas demand is expected during the construction phase of the proposed project since most of the construction equipment would be operated using gasoline and diesel fuels. None of the construction equipment is expected to use natural gas because heavy natural gas powered construction equipment is generally not available. Therefore, no significant adverse impacts to natural gas utilities are expected due to construction activities.

SCE has developed a long-term procurement plan to review the development of new renewable energy resources and energy efficiency programs to ensure clean, reliable power for future needs. Peak electricity usage for SCE in 2012 was 22,340 megawatts (MW). SCE predicts a peak electricity use increase of about 1.59 percent per year between 2012 and 2024 (about 355 MW per year) with peak electricity usage forecasted to be around 26,028 MW in 2024 (CEC, 2014). The electricity increase associated with operation of the proposed project of 0.15 MW is a negligible portion of the electricity generated by SCE and a small portion of the predicted annual increase of 355 MW. SCE has the capacity to meet the minor increase in electricity required by the proposed project, as it is not expected to result in a substantial increase in electricity. Therefore, less than significant impacts on electricity demand are expected during operation.

Operation of the proposed project is not expected to require additional employees. Therefore, no change in the demand for gasoline or diesel is expected. No new natural gas devices are proposed. Therefore, no increase in natural gas is expected.

Mitigation Measures

Based on the above considerations, no significant adverse impacts to energy resources are expected to occur as a result of construction and operational activities that Hixson would undertake in order to complete the proposed project. Similarly, the proposed project would not utilize non-renewable energy resources in a wasteful or inefficient manner. Therefore, since no potentially significant adverse energy impacts were identified, no mitigation measures are required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
• Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	☑
• Strong seismic ground shaking?	☐	☐	☑	☐
• Seismic–related ground failure, including liquefaction?	☐	☐	☑	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☑	☐
c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☑	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☑	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☑

Significance Criteria

The impacts on the geological environment will be considered significant if any of the following criteria apply:

- Topographic alterations would result in significant changes, disruptions, displacement, excavation, compaction or over covering of large amounts of soil.

- Unique geological resources (paleontological resources or unique outcrops) are present that could be disturbed by the construction of the proposed project.

- Exposure of people or structures to major geologic hazards such as earthquake surface rupture, ground shaking, liquefaction or landslides.

- Secondary seismic effects could occur which could damage facility structures, e.g., liquefaction.

- Other geological hazards exist which could adversely affect the facility, e.g., landslides, mudslides.

Discussion

VII. a) Seismically induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. Ground rupture is most likely along active faults and only affects the area immediately adjacent to the fault.

The Alquist-Priolo Earthquake Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The main purpose of the Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act requires the State Geologist to establish regulatory zones, known as Alquist-Priolo Earthquake Fault Zones, around the surface traces of active faults and to issue appropriate maps to identify the fault zones. If an active fault is found, a structure cannot be placed over the trace of the fault and must be set back from the fault by typically 50 feet. The Hixon site is not located within an Alquist-Priolo Earthquake Fault Zone (CDMG, 1986) and no active faults are known to traverse the site. Therefore, the proposed project would not expose people or structures to potential substantial adverse effects involving rupture of a known earthquake fault.

The proposed project is located within a seismically active region. The most significant potential geologic hazard is estimated to be seismic shaking from future earthquakes generated by active or potentially active faults in the region. Based on historical records, it is highly likely that earthquakes would affect the Orange County area in the future. A moderate to large magnitude earthquake on a regional fault could cause moderate to severe seismic shaking, exposing people and structures to risk of loss, injury or death. The intensity of ground shaking would depend upon the magnitude of the earthquake, distance to the epicenter, and the geology of the area between the epicenter and the project site. Of primary concern is the Newport-Inglewood Fault which runs southward from Culver City and ends in Newport Beach.

The Newport-Inglewood fault is a major tectonic structure within the Los Angeles Basin. This fault is best described as a structural zone comprising a series of echelon and sub-parallel fault segments and folds. The faults of the Newport-Inglewood uplift in some cases exert considerable barrier influence upon the movement of subsurface water (see DWR, 1961). Offsetting of sediments along this fault usually is greater in deeper, older formations. Sediment displacement is less in younger formations. The Alquist-Priolo Act has designated this fault as an earthquake

fault zone. The purpose of designating this area as an earthquake fault zone is to mitigate the hazards of fault rupture by prohibiting building structures across the trace of the fault.

This fault poses a seismic hazard to the Los Angeles area (see Toppozada, et al., 1988, 1989), although no surface faulting has been associated with earthquakes along this structural zone during the past 200 years. Since this fault is located within the Los Angeles Metropolitan area, a major earthquake along this fault would produce more destruction than a magnitude 8.0 on the San Andreas fault. The largest instrumentally recorded event was the 1933 Long Beach earthquake, which occurred on the offshore portion of the Newport-Inglewood structural zone with a magnitude of 6.3. A maximum credible earthquake of magnitude 7.0 has been assigned to this fault zone (see Ziony, 1985).

Based on historical records, it is highly probable that earthquakes will affect the Los Angeles region in the future. Research shows that damaging earthquakes will occur on or near recognized faults which show evidence of recent geologic activity. The proximity of Hixson to the Newport Inglewood fault increases the probability that an earthquake may impact the site. There is the potential for damage in the event of an earthquake. Impacts of an earthquake could include structural failure, spill, etc. The hazards of a release during an earthquake are addressed in Section VIII - Hazards and Hazardous Materials.

The proposed project would be subject to numerous controls through the permitting process. Pursuant to the Newport Beach Municipal Code, Title 15, Building and Construction Codes, the City has adopted various codes, including the 2013 Edition of the California Building Code. The new and modified equipment must be designed to comply with the California Building Code requirements since the proposed project is located in a seismically active area. The California Building Code is considered to be a standard safeguard against major structural failures and loss of life. The code requires structures that will: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage, but with some non-structural damage; and, 3) resist major earthquakes without collapse, but with some structural and non-structural damage. The California Building Code bases seismic design on minimum lateral seismic forces ("ground shaking"). The California Building Code requirements operate on the principle that providing appropriate foundations, among other aspects, helps to protect buildings from failure during earthquakes. The basic formulas used for the California Building Code seismic design require determination of the seismic zone and site coefficient, which represent the foundation conditions at the site.

The new and modified equipment at Hixson will require building and fire permits, as applicable, for all new structures associated with the proposed project from the City of Newport Beach. Hixson must receive approval of all building plans and building permits to assure compliance with the latest Building Code adopted by each City prior to commencing construction activities. The issuance of building permits from the local authority will assure compliance with the California Building Code requirements which include requirements for building within seismic hazard zones. No significant adverse impacts from seismic hazards are expected since the proposed project will be required to comply with the California Building Codes, including those addressing seismic effects.

Thus, the proposed project would not alter the exposure of people or property to geological hazards such as earthquakes, landslides, mudslides, ground failure, or other natural hazards. As a result, substantial exposure of people or structures to the risk of loss, injury, or death involving the rupture of an earthquake fault, seismic ground shaking, ground failure or landslides is not anticipated, and the impact is less than significant.

VII. b) The proposed project is located within the boundaries of the existing Hixson Facility. The existing Facility sits on a concrete foundation and because the area around the site is urbanized, the roadways and most surrounding properties are paved. The topography for the site and the surrounding area is relatively flat. The proposed project is not expected to require any excavation or grading activities with the exception of minor trenching for utility lines and the possibility of minor foundational needs for the erection of permanent total enclosures. Thus, the impacts from soil erosion are not expected to be substantial from proposed project activities.

VII. c and d) Liquefaction would most likely occur in unconsolidated granular sediments that are water saturated less than 30 feet below ground surface (see Tinsley et al., 1985). The California Division of Mines and Geology has released maps with information about seismic hazard zones and areas historically prone to liquefaction (CDMG, Map of Seismic Hazard Zones, Newport Beach Quadrangle, April 15, 1998). Based on review of the CDMG Newport Beach Quadrangle, the Hixson site is not located in a zone that has historic occurrences of liquefaction nor has current geotechnical and groundwater conditions indicate a potential for permanent ground displacements or expansive soils. Furthermore, because the area Hixson is located on is flat, the site is not subject to landslides or mudflows. Therefore, no significant impacts due to liquefaction, landslides, or mudflows are expected, and the impact is less than significant.

VII. e) The proposed project is within the boundaries of the existing Hixson Facility which is connected to the existing City Sanitary sewer system for wastewater disposal. Hixson does not use septic tanks and the proposed project would not add septic tanks to the proposed project site. Further, the Facility has an existing wastewater treatment system that will not be modified. Therefore, the proposed project will have no impact related to septic tanks or alternative wastewater disposal systems.

Mitigation Measures

No significant adverse impacts from the proposed project on geology and soils were identified; therefore, no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VIII.	**HAZARDS AND HAZARDOUS MATERIALS.** Would the project:				
a)	Create a significant hazard to the public or the environment through the routine transport, use, and disposal of hazardous materials?	☐	☐	☑	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset conditions involving the release of hazardous materials into the environment?	☐	☐	☑	☐
c)	Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☑	☐
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would create a significant hazard to the public or the environment?	☐	☐	☑	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport or a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
g)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
h) Significantly increased fire hazard in areas with flammable materials?	☐	☐	☐	☑

Significance Criteria

The impacts associated with hazards will be considered significant if any of the following occur:

- Non-compliance with any applicable design code or regulation.
- Non-conformance to National Fire Protection Association standards.
- Non-conformance to regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment or fire protection.
- Exposure to hazardous chemicals in concentrations equal to or greater than the Emergency Response Planning Guideline (ERPG) 2 levels.

Discussion

VIII. a) and b) Exposure of the public or the environment to hazardous materials could occur through improper handling or use of hazardous materials or hazardous wastes, transportation accident; illegal disposal methods; and/or fire, explosion, or other type of emergency. The severity of potential effects varies with the activity conducted, the concentration and type of hazardous material or wastes present, and the proximity of sensitive receptors.

Hixson currently uses a variety of hazardous materials as part of its existing operations including nitric acid, hydrochloric acid, sulfuric acid, ammonia, chromic acid, cyanide, and heavy metals (nickel and chromium). The Facility has permits for an existing acid scrubber and a cyanide scrubber. Cleaning and degreasing solvents, fertilizers, pesticides, and other materials are used in the regular maintenance of buildings and landscaping. The modifications to Hixson associated with the proposed project are not expected to alter the existing use of hazardous materials and these types of materials are still expected to be transported, used, stored, and disposed of from the Facility.

The proposed project would add PTEs and air pollution control equipment, including proposed dry scrubbers, cyanide mist eliminator, and wet acid scrubber. The Facility has two permits that were issued in 1988 for an acid scrubber (SCAQMD Permit No. D00754) and cyanide scrubber (SCAQMD Permit No. D00746). Due to the age of the permits, sufficient information on the quantities of caustic used at the Facility was not available. The Facility also uses caustic solution in some of the tanks in the process lines. Thus, caustic solutions have been and will continue to be used at the Facility. Since these activities are existing, it is considered to be in the CEQA

baseline and the proposed project will not affect its continued use. Therefore, in order to conservatively estimate the maximum quantity of additional caustic solution needed for the proposed project (wet acid scrubber and cyanide mist eliminator), only data provided in the permit application submitted for the proposed project were used. The estimated caustic demand (assuming 50 percent caustic is delivered and diluted to the 5 percent solution used in the scrubbers) is approximately 300 gpd (approximately 109,325 gallons per year), which would require one truck delivery approximately once every four days if delivered in 24 drums per delivery (see Appendix B for detailed calculations). The daily number of deliveries is not expected to increase over the existing activity level and the CEQA baseline; however, annually the number of deliveries would be expected to increase. Hixson is and would be required to comply with applicable laws and regulations regarding the transport and use of caustic. The applicable laws and regulations would reduce the risk of hazardous materials use, transportation, and disposal through the implementation of established safety practices, procedures, and reporting requirements. Hixson would be required to review its Hazardous Materials Business Plan and make appropriate modifications so that the City of Newport Beach Fire Department has adequate information on the locations where hazardous materials are stored and used, in the event of an emergency. Compliance with existing hazardous materials and waste rules and regulations are expected to reduce the proposed project impacts to less than significant.

VIII. c) As discussed in Section III above, the operations at Hixson have generated TACs. The proposed project is expected to reduce the concentrations of TACs in the area surrounding Hixson. No new hazardous materials are proposed that are not already in use at the Facility. Carden Hall, a private school from pre-kindergarten through eighth grade students, is located at 1541 Monrovia, approximately 0.2 miles west of the project site. Due to the nature of allowable uses, it is not anticipated that the construction at the Hixson Facility would result in hazardous emissions with the implementation of mitigation measure AQ-1 or handle hazardous or acutely hazardous materials, substances, or waste in reportable quantities.

Further, the proposed project is expected to reduce TAC emissions from the operations at Hixson. Therefore, the proposed project implementation would result in less than significant impacts involving hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste.

VIII. d) Hixson Metal Finishing is included in the DTSC EnviroStor database (71002205) due to historic releases from the Facility. Hixson Metal Finishing has operated at its existing locations since ~~1962~~1958. The Facility occupies ~~five~~six buildings along Production Place in the City of Newport Beach, in a mixed residential/commercial/industrial neighborhood. Operations at Hixson include plating, anodizing, spray painting, and vacuum cadmium application.

In 1995, the first limited soil investigation was conducted at the Hixson site. At that time percholoethylene (PCE), chromium, nickel and other metals were detected in the soil and shallow perched ground water. Hixson Metal Finishing completed a Phase I Environmental Assessment Checklist dated May 2000. Chemical releases to the ground and fires were document in the checklist. In August 2002, DTSC conducted a Phase I Environmental Assessment Inspection at the Facility and recommended further investigation. DTSC signed a Correction Action Consent Agreement with the property owner in September 2002. Further facility investigation under DTSC

oversight confirmed the presence of solvents in soil gas, soil and groundwater at the Hixson Facility. Based on the results of the indoor air industrial hygiene survey, the detected indoor air concentrations of PCE were below the permissible exposure level (PEL, occupational health exposure limit). Chromium soil contamination was confirmed below Building 2 onsite. Based on the results of the off-site groundwater and soil gas sampling, PCE and trichloroethylene (TCE) have impacted groundwater and soil gas downgradient of the Facility. Hixson is located over a known regional groundwater plume. A soil vapor extraction pilot study conducted in 2012 showed that vapor extraction could be used to effectively treat the upper soil zones and provide a mechanism for treatment of deep contamination and groundwater. Based on the success of the pilot studies, a permanent soil vapor extraction system was installed in 2013 and began operation with appropriate permits from the SCAQMD. Based on the Supplemental Soil Gas Investigation and Soil Vapor Extraction Monitoring report, dated April 20, 2015, results of interim soil gas sampling in March 2015 indicated a maximum of 2.24 microgram per liter (ug/l) of PCE and 0.292 ug/l of TCE, both at about 15 feet below ground surface. The sub-slab probes located in targeted areas of the adjacent residential property continue to have low to less than detectable levels of VOCs. The results of vapor intrusion modeling of the sub-slab soil data from pilot tests indicates a vapor intrusion human inhalation health risk of 1.8 in a million, close to the DTSC one in a million health risk standard. These data indicated that system operations have improved the local subsurface conditions, and mitigated the vapor intrusion threat. The Facility remediation activities that began with pilot tests in 2012 (DTSC, 2014), are on-going, and are planned to be completed in 2020 (DTSC, 2015). The on-going remediation activities will include an additional soil vapor extraction system, which will be permitted by the SCAQMD (see discussion under environmental topic "Air Quality and Greenhouse Gases").

The proposed project is not expected to contribute to the existing contamination or interfere with the operations of the site remediation activities, including the new soil vapor extraction system. Construction activities are not expected to require excavation activities or potentially encounter contaminated soil during construction activities. In the unlikely case that contaminated soil is encounter during trenching activities, Hixson will comply with all federal, state, and local regulations to mitigate all impacts. Therefore, the proposed project would not create a significant hazard to the public or environment and the impact is less than significant.

VIII. e) The site of the proposed project is about 4 miles southwest of John Wayne Airport, and is located outside of the Runway Protection Zones, Safety Zones, and the Federal Aviation Regulations (FAR) Part 77 Notification Surface. Additionally, the proposed project would not require FAA notification in accordance with Section 77.9 of the FAR because the proposed project does not include construction or alteration of a site listed under Section 77.9. Also, the proposed project would not require Federal Aviation Administration (FAA) notification in accordance with Section 77.13 of the FAR because the proposed project would not exceed the notice criteria under Section 77.17. Thus, project implementation would not result in an airport related safety hazard.

VIII. f) An Emergency Operations Plan (EOP) is included in the City's Emergency Management Program. The EOP provides guidance for the City of Newport Beach's response for extraordinary emergency situations such as those that stem from natural disasters, technological incidents, and national security emergencies in or around the City. This plan does not address ordinary, everyday emergencies or the established departmental procedures used to cope with such incidents. Rather,

this multi-hazard plan focuses on management, concepts, and response procedures relative to large-scale disasters. The EOP also considered evacuation routes for the city in its planning. Newport Beach is designated as a Tsunami Ready City by the National Weather Service and as such created a specific Tsunami Response Plan which is an Annex to the EOP. The proposed project would occur within the confines of the existing Hixson Facility and does not have any characteristics that would physically impair or otherwise interfere with emergency response or evacuation in the project vicinity. These conditions preclude the possibility of the proposed project conflicting with an emergency response or evacuation plan. No significant impact on emergency response plans are expected due to implementation of the proposed project.

VIII. g) The site of the project is within an urban area and is not adjacent to any wildlands. Thus, project implementation would not expose people or structures to a significant risk involving wildland fires.

VIII. h) As discussed above, the proposed project would add PTE and air pollution control equipment, including proposed dry scrubbers, mist eliminator, and wet acid scrubber. The air pollution control equipment would not require the use of additional flammable materials and would not increase the fire hazard in an area with existing flammable materials. Therefore, no significant adverse impacts on flammable hazardous materials are expected due to the proposed project.

Mitigation Measures

No significant adverse impacts from the proposed project on hazardous or hazardous materials were identified; therefore, no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IX.	**HYDROLOGY AND WATER QUALITY.** Would the project:				
a)	Violate any water quality standards, waste discharge requirements, exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, or otherwise substantially degrade water quality?	☐	☐	☑	☐
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☑	☐
c)	Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site or flooding on- or off-site?	☐	☐	☐	☑
d)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☑
e)	Place housing or other structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, which would impede or redirect flood flows?	☐	☐	☐	☑

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
f)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑
g)	Require or result in the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☑	☐
h)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☑	☐
i)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☑

Significance Criteria

Potential impacts on water resources will be considered significant if any of the following criteria apply:

Water Quality:

- The project will cause degradation or depletion of ground water resources substantially affecting current or future uses.
- The project will cause the degradation of surface water substantially affecting current or future uses.
- The project will result in a violation of NPDES permit requirements.

- The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.

- The project results in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.

- The project results in alterations to the course or flow of floodwaters.

Water Demand:

- The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use more than 262,820 gallons per day of potable water.

- The project increases demand for water by more than five million gallons per day.

Discussion

IX. a, c, and d) The City's storm water collection systems includes catch basins, drainage basins, pumping stations, and force mains. The Orange County Flood Control District, the County of Orange, and the City of Newport Beach, along with 51 other incorporated cities, discharge pollutants from the municipal storm sewer systems. These discharges are regulated under countywide National Pollutant Discharge Eliminated System (NPDES) permit for the Santa Ana Regional Areawide Urban Storm Water Runoff area.

The NPDES permit requires the development and implementation of a program addressing storm water pollution issues in development planning for private projects. The primary objectives of the municipal storm water program is to prohibit non-storm water discharges and reduce the discharge of pollutants from storm water conveyance systems. The County Water Quality Management Plan (WQMP) was developed as part of the municipal storm water program to address storm water pollutions for new development. The WQMP contains a list of the minimum required best management practices (BMPs) that must be used for a designated project. Project applicants must incorporate appropriate WQMP requirements into their project plans. The project plans are evaluated by the City of Newport Beach and approved as part of the development plan approval process prior to the issuance of grading or building permits for projects covered by the WQMP requirements.

Prior to the issuance of the building permit for the proposed project, the City would review the plans and impose terms, conditions and requirements, as needed, to implement the appropriate BMPs. Compliance with the NPDES and City of Newport Beach Municipal Code that implements those requirements would reduce any impacts associated with the construction and operation of the proposed project to water quality to less than significant.

The proposed project is not expected to increase impermeable surfaces at the Hixson Facility. Existing areas of the site which are currently paved would be enclosed and air pollution control equipment would be added to the Facility. All new structures and equipment will be located within

the general footprint of the existing Facility, which is also paved. Therefore, the proposed project is not expected to result in an increase in impermeable surfaces that would increase storm water runoff from the Facility. Also, the proposed project would not alter the course of a stream or river as no streams or rivers are located within the boundaries of the proposed project.

IX. b and h) Construction of the proposed project does not involve grading or excavation, but will require trenching, which may require dust suppression from periodic watering. Trenches may be open for an extended period ~~The trenching activities period are not expected to last more than a few days~~ and may require periodic dust suppression over the duration of the trenching activities. Some water will also be used to mop building surfaces and equipment, but no more than required for normal cleaning or maintenance. Therefore, no appreciable water use is expected during construction.

Operation of the proposed project includes two scrubbers (i.e., wet acid scrubber and cadmium mist eliminator) that will use water. The Facility currently hold permits for two similar scrubbers, but no data on water use was available. Therefore, to present a conservative "worst-case" analysis, water use for the proposed project is considered to be in addition to the current water use. Based on the data supplied in the permit applications, the maximum daily water use would be approximately 3,444 gpd, which is well below the CEQA significance threshold of 262,820 gpd. Therefore, the impact of the proposed project on water use is considered to be less than significant.

IX. e and f) The existing Hixson Facility has been placed in Zone X, pursuant to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, as there are no special flood hazard areas (Map No. 06059C0268J). Zone X is an area of minimal flood hazard. It includes the areas located outside the Special Flood Hazard Area and higher than 500 year flood. Although the proposed project involves the construction of PTEs, the Hixson Facility is located outside of the 100-year and 500-year flood zones, so no new structures would be placed within flood hazard areas.

A seiche is an earthquake or slide-induced wave that can be generated in an enclosed body of water (e.g., lakes, reservoirs). The nearest enclosed body of water is Big Canyon Reservoir, which is approximately 4.5 miles east of the Facility. Therefore, the Hixson Facility is not expected to impacted by seiche.

A tsunami is a wave generated by an earthquake or other natural event. Tsunamis generally affect coastal communities and land near sea-level adjacent to the coast. According to the City of Newport Beach General Plan Figure S1, the Hixson Facility is not located within an area subject to a tsunami.

Potential risk from mudflow does not exist within the vicinity of the Hixson Facility as the land is flat and steep slopes are not located on or in proximity to the Facility.

IX. g and i) The Facility currently holds an Industrial Discharge Permit issued by the Orange County Sanitation District (Permit No. 6-1-115). The proposed new scrubbers will not discharge to the industrial sewer. The spent caustic is transported offsite for disposal. The remainder of the proposed project components are dry air pollution control devices that would not generate

wastewater. Therefore, the proposed project is not expected to affect wastewater generation at the Facility or affect the ability of the Orange County Sanitation District to service the Facility.

As discussed above and in Section IX. a, c, and d), the proposed project is not expected to cause the need for new or expanded wastewater or storm water treatment or management systems. Therefore, no impacts to storm water or wastewater systems are expected.

Mitigation Measures

No significant adverse impacts from the proposed project on hydrology and water quality were identified; therefore, no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
X.	**LAND USE AND PLANNING.** Would the project:				
a)	Physically divide an established community?	☐	☐	☐	☑
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☑

Significance Criteria

Land use and planning impacts will be considered significant if the project conflicts with the land use and zoning designations established by local jurisdictions.

Discussion

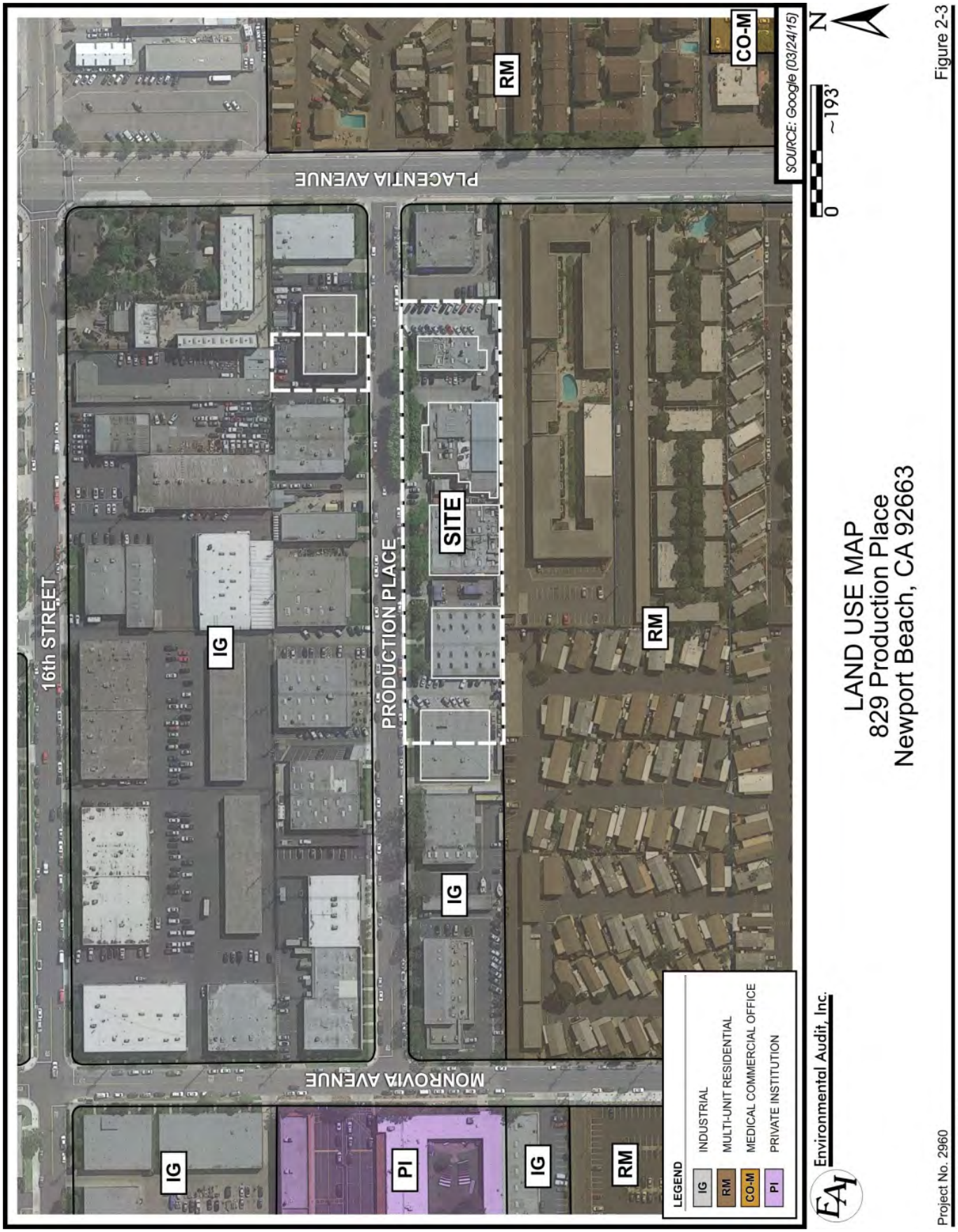
X. a) The proposed project would occur within the boundaries of an existing industrial Facility. No construction would occur outside of the existing Facility boundaries, with the exception of trenching to upgrade the electrical system. Therefore, since all off-site construction will occur underground, the proposed project will not disrupt or physically divide an established community.

X. b) Hixson is located in the City of Newport Beach within Orange County. Land use designation for the Hixson Facility is Industrial (IG). Land uses surrounding Hixson include other industrial land uses to the north and west; and multiple unit residential (RM) land uses to the east and south. The area around the Facility is urbanized and includes commercial, industrial, and residential development.

Hixson is consistent with the zoning for the Facility according to the Newport Beach Land Use Map (See Figure 2-3) and with the City of Newport Beach General Plan (Newport Beach, 2006a). All proposed modifications would occur within the confines of the existing Hixson Facility; therefore, the proposed project would be consistent with the applicable land use designation.

Mitigation Measures

No significant adverse impacts from the proposed project on land use and planning are expected, therefore, no mitigation measures are required.


16th STREET
PLACENTIA AVENUE
PRODUCTION PLACE
MONROVIA AVENUE
SITE
IG
RM
CO-M
PI
SOURCE: Google (03/24/15)
0
~193'
N
LEGEND
INDUSTRIAL
MULTI-UNIT RESIDENTIAL
MEDICAL COMMERCIAL OFFICE
PRIVATE INSTITUTION
Environmental Audit, Inc.
LAND USE MAP
829 Production Place
Newport Beach, CA 92663
Project No. 2960
N:\2960\LandUseMap (rev.1).cdr
Figure 2-3

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XI.	**MINERAL RESOURCES.** Would the project:				
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☑

Significance Criteria

Project-related impacts on mineral resources will be considered significant if any of the following conditions are met:

- The project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

- The proposed project results in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Discussion

XI. a) and b) The proposed project will be constructed on land within an existing industrial site. The proposed project will not result in the loss of availability of a known mineral resource that would be of value to the region or residents of the state because there are no such minerals of that type currently found on the existing site. Additionally, because the proposed project would take place within the boundaries of the existing Facility, there will be no loss in availability of a locally-important mineral resource recovery site delineated on a local general plan or other land use plan. Therefore, no significant adverse impacts are expected.

Mitigation Measures

No significant adverse impacts from the proposed project on mineral resources are expected, therefore, no mitigation measures are required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XII. NOISE. Would the project result in:				
a) Exposure of persons to or generation of permanent noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☑	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☑	☐
c) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☑	☐	☐
d) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport or private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑

Significance Criteria

The City of Newport Beach has developed significance thresholds for operational noise impacts which are defined in Table 2.5-8.

TABLE 2.5-8

Significant Noise Impacts

CNEL (dBA)	dBA Increase
55	3
60	2
65	1
70	1
Over 75	Any increase is considered significant

Source: Newport Beach, 2006a

- Construction noise levels will be considered significant ~~if they exceed the local noise ordinances or,~~ if ~~the noise threshold is currently exceeded,~~ project noise sources increase ambient noise levels by more than ~~three~~3.0 decibels (dBA) at the site boundary.

- Construction and operation of the proposed project would have a significant vibration impact if ground vibration levels for residential structures would exceed 72 VdB for frequent events (70+ vibration events), 75 VdB for occasional events (30-70 events), and/or 80 VdB for infrequent events (30 or fewer events), the acceptability limits prescribed by the FTA.

Discussion

XII. a) and c)

The City of Newport Beach has adopted Community Noise Control policies and standards as part of the Newport Beach Municipal Code in order to limit excessive and nuisance noise in the City. These policies contain noise standards that pertain to non-transportation noise sources, and are taken from the Noise Element of the General Plan (see Table 2.5-9)

TABLE 2.5-9

City of Newport Beach Noise Ordinance Standards

LAND USE CATEGORY	Allowable Noise Levels (dBA)			
	Interior		Exterior	
	Interior Noise Level (Leq) 7am to 10pm	Interior Noise Level (Leq) 10 pm to 7am	Exterior Noise Level (Leq) 7am to 10pm	Exterior Noise Level (Leq) 10 pm to 7am
Residential Single Family, Two Family, Multiple Family	45	40	55	50
Residential Portions of Mixed Use Developments	45	40	60	50
Commercial	NA	NA	65	60
Industrial or Manufacturing	NA	NA	70	70

Source: Newport Beach, 2006a
NA = not applicable

Construction activities are further regulated under the Newport Beach Noise Ordinance (10.28.040). The noise ordinance prohibits construction activities that generate noise on any weekday except between the hours of 7:00 a.m. and 6:30 p.m., nor on any Saturday except between the hours of 8:00 a.m. and 6:00 p.m. Construction activities are prohibited on Sundays and federal holidays.

The vicinity of the proposed project is an urban environment characterized by extensive industrial, commercial and residential land uses. The existing ambient noise environment surrounding the Hixson Facility is dominated by traffic noise on Production ~~Way~~Place and Placentia Avenue. The Newport Beach General Plan estimated noise levels along Placentia Avenue north of Superior Avenue to be about 61.0 dBA (Ldn) at 100 feet from the street. Noise is also associated with the industrial facilities along Production ~~Way~~Place.

In order to determine ambient noise levels in the vicinity of the Hixson Facility, ambient noise levels were measured on August 10 and 11, 2015. The locations of the noise readings are shown in Figure 2-4 and described in Table 2.5-10.

TABLE 2.5-10

Noise Monitoring Locations

Location[(a)]	Description
1	Located at 828 Production Place within an industrial area, and north of 829 Production Place (the Hixson Facility). Noise sources include noise from Hixson operations and traffic along Production Place.
2	Located on the east side of Placentia Avenue, at the entrance to the Ebb Tide Mobile Home Park and east of Hixson. Noise is dominated by traffic on Placentia Avenue.
3	Located adjacent to the Newport Villa apartment building immediately south of the Hixson Facility. Noise is dominated by occasional traffic along the driveway and noise from the Hixson Facility.
4	Located adjacent to the mobile home park southwest of the Hixson Facility. Noise is dominated by occasional traffic along the driveway, noise from the Hixson Facility, and human activity (conversations, throwing away trash)

(a) Noise monitoring locations are shown in Figure 3.7-1

The results of noise monitoring are provided in Table 2.5-11. Noise in the area is generally dominated by traffic along Placentia Avenue. Hixson is a source of noise at the noise monitoring locations along Production ~~Way~~Place which is an industrial area.

TABLE 2.5-11

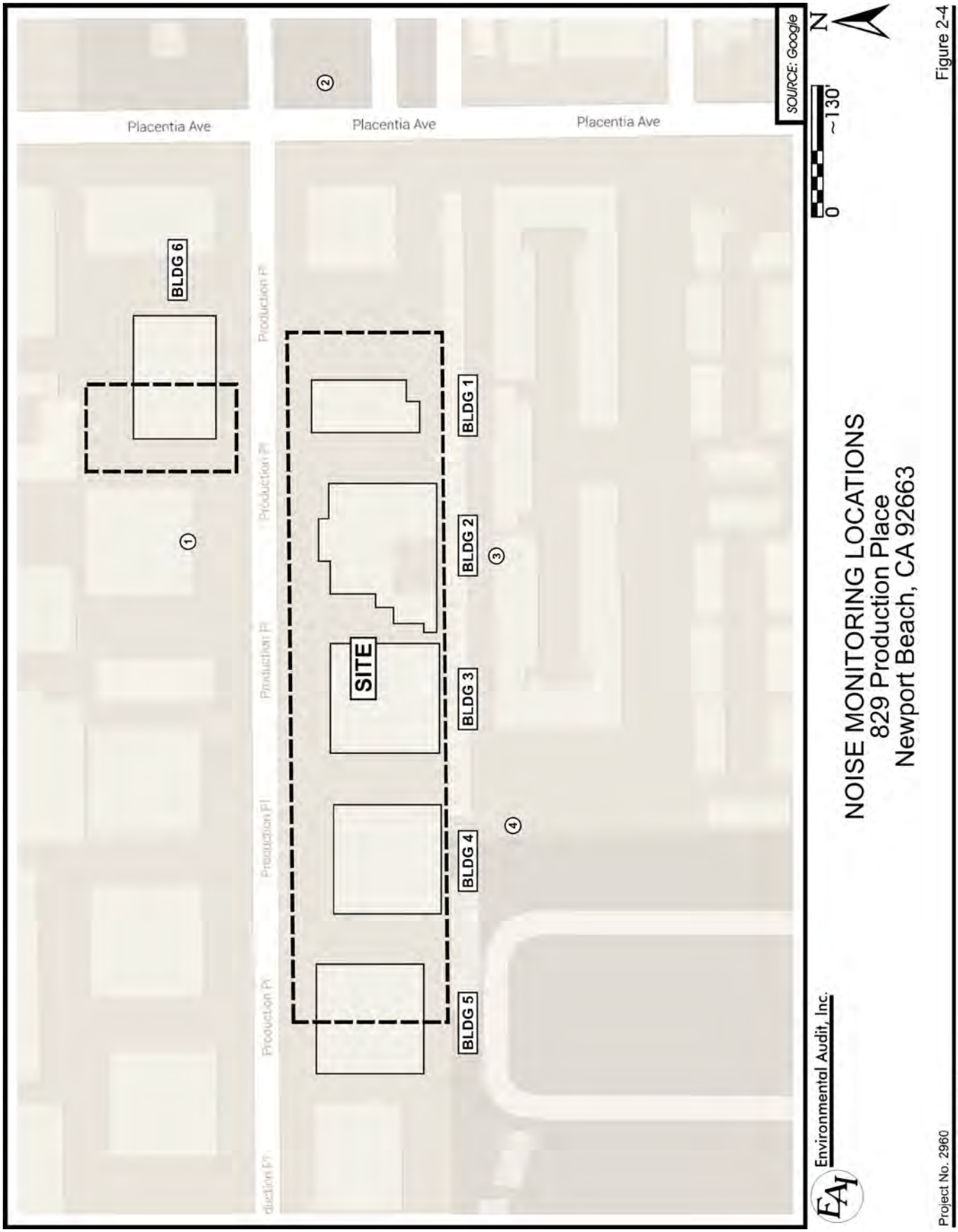
Results of Noise Monitoring at Hixson
(All Measurements in dBA)

Location[(a)]	Morning	Afternoon	Evening	Nighttime
1	64.1	70.2	64.2	60.0
2	72.8	78.5	71.3	69.3
3	66.2	60.7	62.3	60.5
4	58.3	52.9	54.9	52.8

(a) Noise monitoring locations are shown in Figure 2-4.

Construction Noise Impacts

Noise from construction activities is generated by a broad array of construction equipment. Table 2.5-12 shows the noise level ranges of typical construction equipment. These noise sources will operate during daylight hours and will be a source of noise over the construction period.


Placentia Ave
Placentia Ave
Placentia Ave
Production Pl
Production Pl
Production Pl
Production Pl
Production Pl
BLDG 6
BLDG 1
BLDG 2
BLDG 3
BLDG 4
BLDG 5
SITE
1
2
3
4
SOURCE: Google
0
~130'
N
NOISE MONITORING LOCATIONS
829 Production Place
Newport Beach, CA 92663
Environmental Audit, Inc.
Figure 2-4
Project No. 2960
N:\2960\NoiseMonitoringLocations.cdr

Construction activity for the proposed project would generate noise associated with the use of heavy construction equipment and construction-related traffic. The construction equipment at Hixson is expected to include a crane, manlift, forklift, backhoe/loader, and roller, as well as delivery and haul trucks. Examples of noise levels from construction equipment are presented in Table 2.5-12. These noise sources would operate during the daytime and would be a source of noise during the construction period.

TABLE 2.5-12

Examples of Noise Levels from Construction Equipment

EQUIPMENT	TYPICAL RANGE (decibels)[a]
Trucks	88
Cranes	81
Man Lift/Forklift	75
Backhoe/Loader	80/85
Roller	74
Welder	74
Jackhammer	88

(a) Federal Highway Administration, 2006.

During noise sampling on the morning of August 10, 2015, construction activities were observed at Hixson, which sounded like the operation of a jackhammer. Noise level readings were taken at the location of the closest residential receptor (Receptor No. 3, Newport Villa Apartments) while construction activities occurred at Hixson. The construction noise levels at the Newport Villa Apartments were determined to range from about 75 to 78 dBA (average of about 76.5 dBA) while the construction equipment was in operation. This is expected to provide a conservative estimate of noise levels during construction activities associated with the proposed project at Hixson and is based on actual noise monitoring data.

The construction noise levels are estimated to be 76.5 dBA at 50 feet from construction activities, based on noise monitoring. Using an estimated six dBA reduction for every doubling distance, the noise levels at the other receptors are summarized in Table 2.7-6. Noise levels associated with construction activities could range from about 69 to about 77 dBA. The closest residential area to the proposed project is approximately 50 feet from the closest construction activities. Noise levels during construction activities in the vicinity of Hixson could increase from less than 0.1 to about 11 dBA. Noise levels at several residential locations would increase by more than 3.0 dBA; therefore, unmitigated construction noise levels are considered to be potentially significant during peak construction activities and mitigation is required. Peak construction periods that generate noise are expected to be short-term and would cease following the completion of construction.

TABLE 2.5-13

Hixson Projected Construction Noise Impacts

Location[(a)]	Baseline Noise Levels (decibels)[(b)]	Distance to Noise Sampling Location from Closest Construction Activities (feet)	Construction Sound Level at Noise Sampling Location (decibels)	Total Sound Level at Noise Sampling Location (decibels)[(c)]	Increased Noise Levels at Noise Sampling Locations due to Construction Activities (decibels)	Significant?
1	68.3	195	64.5	69.8	1.5	No
2	76.7	390	58.5	76.8	0.1	No
3	66.2	50	76.5	76.9	10.7	Yes
4	58.5	130	69.3	69.3	10.8	Yes

(a) Refers to the noise monitoring locations identified in Figure 2-4.
(b) Includes all ambient noise sources. Noise levels are from Table 2.5-11.
(c) The total sound level was calculated using the following formula: $T_{sl}=10\log_{10}(10^{Bsl/10} + 10^{Csl/10})$ where T_{sl} = the total sound level (dBA); B_{sl} = baseline sound level (dBA); and C_{sl} = construction sound level (dBA)

Operational Noise Impacts

Once construction of the proposed project is complete, operation of the new air pollution control equipment would commence including scrubbers and ULPA/HEPA filters. Based on information provided by Duall (the company that is providing the new air pollution control equipment at Hixson), any potential noise associated with the air pollution control equipment is related to the fans that move the air through the system, which are located at the base of the equipment. The noise associated with the new air pollution control equipment is expected to be about 70 dBA at 50 feet.

The air pollution control equipment will be located along the southern portion of the Hixson buildings and about 50 feet from the closest residential receptor (see Figure 1-2). Equipment that would generate noise and that would be located on the roof at Hixson is described as follows. A HEPA Filtration System will be placed on the top of Building 1. ULPA Filtration/Dry Gas Scrubbers will be placed on Buildings 2 and 3. An ULPA Filtration System will be placed on Building 4. An acid scrubber would be placed on Building 1. The estimated noise from each of these pieces of equipment is expected to be about 70 dBA. The largest noise impact would be at the apartment building located adjacent to Building 2 as the Acid Scrubber and ULPA Filtration System/Dry Gas Scrubber would be located in close proximity to each other. At this location, the combined noise would be expected to be about 73 dBA ($10 \times \log_{10}(10^{70/10}+10^{70/10})$) from the two new air pollution control equipment at 50 feet. Existing noise levels at the adjacent apartment building (Receptor 3) was estimated to be about 66.2 dBA. Therefore, the unmitigated noise increase would be considered potentially significant as it would raise existing noise levels by more than 1 dBA at the adjacent residential receptors (Receptors 3 and 4)(see Table 2.5-14).
As shown in Table 2.5-14 for Location 3, the total noise at the closest residential receptor (baseline plus project) is expected to be about 73.8 dBA or an increase of about 7.6 dBA, which is considered

significant. While there is an existing wooden screening wall on Building 3, there is not one on Building 2. Therefore, noise at the residential area adjacent to Building No. 3 would be reduced. Note that buildings are expected to reduce noise levels within the building by about 20 dBA, so indoor noise is expected to less.

TABLE 2.5-14
Hixson Projected Operational Noise Impacts

Location[(a)]	Baseline Noise Levels (decibels)[(b)]	Distance to Noise Sampling Location from Closest APC Equipment (feet)	Operational Sound Level at Noise Sampling Location (decibels)	Total Sound Level at Noise Sampling Location (decibels)[(c)]	Increased Noise Levels at Noise Sampling Locations due to Project Operations (decibels)	Significant?
1	68.3	195	61.3	69.1	0.8	No
2	76.7	390	55.3	76.7	0.0	No
3	66.2	50	73	73.8	7.6	Yes
4	58.5	130	65.2	66.0	7.5	Yes

(a) Refers to the noise monitoring locations identified in Figure 2-4.
(b) Includes all ambient noise sources. Noise levels are from Table 2.5-11.
(c) The total sound level was calculated using the following formula: $T_{sl}=10\log_{10}(10^{Bsl/10} + 10^{Osl/10})$ where T_{sl} = the total sound level (dBA); B_{sl} = baseline sound level (dBA); and O_{sl} = operational sound level (dBA)

The project has the potential to generate significant noise levels on the adjacent residential areas; therefore, feasible mitigation measures must be implemented.

XII.b) The metric for measuring groundborne noise and vibration is peak ground velocity. During construction activities, groundborne vibration may occur due to the use of heavy construction equipment. The proposed project is not expected to require construction equipment that generates strong vibration effects, e.g., pile driver, bulldozers, etc., as no excavation activities would be required. The proposed project will require some trenching, however, no large equipment (greater than 120 HP) will be used during trenching. Therefore, the proposed project is not expected to generate significant groundborne vibration associated with construction activities.

The equipment associated with the operation of the proposed project is not expected to generate detectable groundborne vibration during normal operation because new and modified equipment is not expected to have oscillating parts which have the potential to generate groundborne vibration. Therefore, vibration from operation of the proposed project is expected to be less than significant and no significant vibration impacts are expected during operation.

XII. d) The airport located nearest to the Hixson Facility is John Wayne Airport, approximately seven miles to the northeast. Although not within a two-mile radius, according to the Airport Land Use Commission for Orange County Airport Planning Areas Hixson is located within the John Wayne Airport Environs Land Use Plan Airport Planning Area. Noise contours resulting from

operations at John Wayne Airport are provided in the Orange County Airport Land Use Commission. The Hixson Facility is approximately two miles outside of the nearest point of the 60 dBA CNEL zone associated with airport operations and over 2.5 miles from the 65 dBA CNEL zone. The proposed project would not require any additional personnel to operate the Facility. Therefore, the proposed project would not expose people residing or working in the area to noise related to airports.

Mitigation Measures

Noise impacts associated with construction and operational activities are potentially significant for noise for residences located adjacent to Hixson. The following construction mitigation measures will be imposed.

N-1 During construction, the contractor shall comply with Newport Beach Noise Ordinance (10.28.040) which prohibits construction activities that generate noise on any weekday except between the hours of 7:00 a.m. and 6:30 p.m., and on any Saturday except between the hours of 8:00 a.m. and 6:00 p.m. Construction activities are prohibited on Sundays and federal holidays.

N-2 During construction activities, all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained noise mufflers, consistent with manufacturer's standards.

N-3 Equipment shall be staged in areas that will create the greatest distance between construction-related noise sources and the residential receptors closest to the construction activities during project construction.

N-4 Construction-related trucks traveling to and from the proposed project sites shall be restricted to the same hours specified for the operation of construction equipment. To the extent feasible, haul routes shall be designed to avoid sensitive land uses and residential areas, to the extent feasible.

N-5 Temporary sound blankets (fences typically composed of polyvinyl-chloride-coated outer shells with absorbent inner insulation) shall be placed along the boundary of the proposed project sites facing the nearest noise-sensitive receptors during construction activities.

N-6 Prior to initiation of construction activities, the construction contractor shall notify residences within 500 feet of the construction areas of the construction schedule. A contact telephone number of the Owner's Authorized Representative shall be conspicuously posted along construction site fences and provided in the notification of the construction schedule to nearby residents.

Mitigation measures N1 through N6 are expected to reduce construction noise impacts. Construction that generates noise would avoid the more sensitive evening and nighttime hours, are short-term, and will be eliminated following the completion of the construction phase. Therefore, construction noise impacts are considered to be less than significant after mitigation.

Operational noise levels were also determined to be potentially significant because additional noise generating equipment would be located within 50 feet of residential areas. A six-foot wooden fence-like screen is present along the southern boundary on the roof of the Hixson Building No. 3 and also functions as a noise barrier. The noise attenuation associated with the wooden screen-like fence is expected to be about 18 dBA (FHWA, 2011). Therefore, the following mitigation measure shall be implemented:

N-7 Noise barriers shall be placed between the air pollution control equipment and the apartment buildings to the south of the Hixson Facility. The noise barrier shall be sufficient to reduce noise levels by a minimum of 18 dBA as identified by Table 3 of the Federal Highway Administration Noise Barrier Design Handbook (FHWA, 2011). The noise barriers shall be maintained to assure that their effectiveness does not decrease with time. The screen wall shall be textured and painted to be compatible with the architectural style, materials, and color of the building upon which the equipment is located and will be subject to the review and approval of the City of Newport Beach Community Development Department.

The noise levels at the adjacent apartment are estimated to be 73.8 dBA. With the installation of noise barriers, the noise would be reduced to about 56 dBA (see Table 2.5-15). Existing noise levels at the adjacent apartment building (Receptors 3) were estimated to be about 66.2 dBA. With the installation of noise barriers, overall noise levels (baseline plus project) are expected to be 66.6 dBA. Therefore, the noise impacts would be mitigated to less than 1 dBA increase with the installation of a noise barrier and would be considered less than significant.

TABLE 2.5-15

Hixson Projected Mitigated Operational Noise Impacts

Location[(a)]	Baseline Noise Levels (decibels)[(b)]	Distance to Noise Sampling Location from Closest APC Equipment (feet)	Mitigated Operational Sound Level at Noise Sampling Location (decibels)	Total Sound Level at Noise Sampling Location (decibels)[(c)]	Increased Noise Levels at Noise Sampling Locations due to Project Operations (decibels)	Significant?
1	68.3	195	45	68.3	0	No
2	76.7	390	39	76.7	0	No
3	66.2	50	56	66.6	0.4	Yes
4	58.5	130	49.5	59.0	0.5	Yes

(a) Refers to the noise monitoring locations identified in Figure 2-4.
(b) Includes all ambient noise sources. Noise levels are from Table 2.5-11.
(c) The total sound level was calculated using the following formula: $T_{sl}=10\log_{10}(10^{Bsl/10} + 10^{Osl/10})$ where T_{sl} = the total sound level (dBA); B_{sl} = baseline sound level (dBA); and O_{sl} = operational sound level (dBA)

After mitigation, noise impacts associated with the proposed project are expected to be less than significant.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING.	Would the project:				
a)	Induce substantial growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (e.g. through extension of roads or other infrastructure)?	☐	☐	☐	☑
b)	Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

Significance Criteria

The impacts of the proposed project on population and housing will be considered significant if the following criteria are exceeded:

- The demand for temporary or permanent housing exceeds the existing supply.
- The proposed project produces additional population, housing or employment inconsistent with adopted plans either in terms of overall amount or location.

Discussion

XIII. a) Construction and operational activities associated with the proposed project are not expected to involve the relocation of individuals, impact housing or commercial facilities, or change the distribution of the population because the proposed project will occur completely within the existing industrial Facility and no housing is located within the Facility. An estimated 15 construction workers are expected to be needed during peak construction activities and the workers are expected to come from the large labor pool in southern California. No increase in the permanent number of workers at the Hixson Facility is expected following the construction phase. Human population within the jurisdiction of the SCAQMD is anticipated to grow regardless of implementing the proposed project. As a result, the proposed project is not anticipated to generate any significant adverse effects, either direct or indirect, on population growth or distribution within the District.

XIII. b) The proposed project includes modification of an existing Facility, which is located in an industrial setting. All construction workers are expected to be drawn from the large local southern California labor pool and operation of the proposed project would not require additional workers, as discussed in item XIII. a) above. As a result, the proposed project is not expected to result in the creation of any industry that would affect population growth, directly or indirectly

induce the construction of single- or multiple-family units, or require the displacement of people or housing elsewhere in the district.

Mitigation Measures

No significant adverse impacts from the proposed project on population and housing are expected, therefore, no mitigation measures are required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES. Would the proposal result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:				
a) Fire protection?	☐	☐	☑	☐
b) Police protection?	☐	☐	☐	☑
c) Schools?	☐	☐	☐	☑
d) Other public facilities?	☐	☐	☐	☑

Significance Criteria

Impacts on public services will be considered significant if the project results in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, or the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives.

Discussion

XIV. a) Neither construction activities nor operation activities are expected to result in an increased need for fire response services. The Newport Beach Fire Department provides services relating to fire protection, hazardous materials incidents, pre-hospital medical emergencies, rescues, and disaster operations. The closest station to the project site is Lido Fire Station Number 2, located at 475 32nd Street, about one mile from the site.

The proposed project would be subject to compliance with the requirements set forth in the 2013 ~~2015~~ California Fire code as well as the Newport Beach Municipal Code, Title 9, Fire Code. Proposed project modifications would also be subject to the fire provisions specified in the California Building Code. The proposed project plans would be reviewed and approved by the Newport Beach Building Division and Fire Department, which would ensure adequate emergency access, sufficient capacity of fire hydrants for fire flows, and compliance with all applicable fire codes and standards. The Newport Beach Fire Department performs life safety inspections annually and hazardous material inspections once every three years (Newport Beach Fire

Department, 2015). Compliance with the applicable fire codes and standards would result in a less than significant impact to fire protection services.

XIV. b) The City of Newport Beach Police Department is the responding agency for law enforcement in the vicinity of the proposed project. The Newport Beach Police Headquarters, located at 870 Santa Barbara Drive in Newport Beach, is approximately four miles from the project site. Because police units are in the field, response times currently and will in the future vary depending on location of the nearest unit.

The proposed project would be constructed within the confines of an existing industrial facility. The Facility is fenced and entry to the Facility is limited to workers and visitors. Entry and exit of the construction work force would be monitored, so that no additional or altered police protection is expected to be required due to the proposed project. Similarly, since the proposed project would not require additional employees to operate new and modified equipment, no changes to the existing security force would be necessary.

XIV. c) and d) Construction activities would not involve the relocation of individuals, impact housing or change the distribution of the population. Since construction workers would likely be drawn from the existing employment pool in southern California, and no impacts to existing schools are expected. No increase in the number of permanent workers is required during operation of the proposed project. Thus, the proposed project would not alter existing, or require additional schools. No other public services agencies or facilities were identified that could be affected by the proposed project since no increase in the number of Hixson employees is expected due to the proposed project. Since the proposed project would not increase the demand for additional public services or facilities, it is not expected to affect service ratios, response times, or other performance objectives.

Mitigation Measures

No significant adverse impacts from the proposed project on public services are expected, therefore, no mitigation measures are required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XV. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment or recreational services?	☐	☐	☐	☑

Significance Criteria

The impacts to recreation will be considered significant if:

- The project results in an increased demand for neighborhood or regional parks or other recreational facilities.
- The project adversely affects existing recreational opportunities.

Discussion

XV. a) and b) The proposed project would not increase the demand for neighborhood parks, or other recreational facilities in the area since the proposed project is not expected to increase the local population. At its peak, construction of the proposed project would require approximately 15 workers, drawn from the local population so there would be no additional use of local parks or other recreational opportunities. Operation of the proposed project would not require hiring any new employees so no additional use of parks or recreational opportunities are anticipated. Due to urbanization of the area, there are no recreational opportunities of significance at or in the immediate vicinity of the Facility.

Mitigation Measures

No significant adverse impacts from the proposed project on recreation are expected; therefore, no mitigation measures are required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVI. SOLID AND HAZARDOUS WASTE. Would the project:				
a) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☑	☐
b) Comply with federal, state, and local statutes and regulations related to solid and hazardous waste?	☐	☐	☑	☐

Significance Criteria

The proposed project impacts on solid and hazardous waste will be considered significant if the following occurs:

- The generation and disposal of hazardous and non-hazardous waste exceeds the capacity of designated landfills.

Discussion

XVI. a) and b) The Facility currently generates solid waste and hazardous wastes. Soil removed from the Facility during construction activities could be potentially hazardous and generate an estimated 80 cubic yards of contaminated soil on a one time basis.

Production at the Facility is not expected to increase as a result of the proposed project. Therefore, no increase in solid waste disposal from normal operations is expected. An increase in spent caustic is expected from the use of the new wet gas scrubber and the cyanide mist eliminator. DTSC records indicate that Facility generated approximately two to three tons annually of waste alkaline solution with metals between 1993 and 2014, except in 2011, 2012, and 2013 when 16.8, 15.7, and 5.5 tons, respectively, were generated. The acid scrubber and cyanide mist eliminator are recirculating systems with makeup solution added at rates of 1.2 to 1.4 gallons per minute. Periodically, the solution in the systems requires replacement. The waste solution generated is a hazardous waste that is transported offsite for treatment and disposal. The exact amount of waste caustic solution from the existing air pollution control equipment was not available. To conservatively estimate the amount of waste caustic generated by the proposed project, it is assumed that volume of the recirculation tanks is replaced on an annual basis. The acid scrubber and cyanide mist eliminator have recirculation tanks of 285 gallons and 120 gallons, respectively for a total of 405 gallons. Using and estimated density of 9.0 pounds per gallon, approximately 3,645 pounds (or 1.8 tons) of spent caustic would be generated and require treatment, recycle, or disposal.

There are no hazardous waste landfills within the Southern California area. The three landfills operated by the County of Orange only accept non-hazardous household waste, but there are four

household hazardous waste collections sites in Anaheim, Huntington Beach, Irvine, and San Juan Capistrano. Hazardous waste can be transported to permitted facilities outside of Southern California. Contaminated soil is expected to be transported to Clean Harbors in Buttonwillow, California. The permitted capacity at the Buttonwillows landfill is in excess of 10 million cubic yards so it would have sufficient capacity to handle 80 cubic yards of soil (Clean Harbors, 2015b). The nearest out-of-state hazardous waste landfills are U.S. Ecology, Inc., located in Beatty, Nevada and Clean Harbors in Grassy Mountain, Utah. U.S. Ecology, Inc. is currently receiving waste, and is in the process of extending the operational capacity for an additional 35 years (U.S. Ecology, 2015). Clean Harbors is currently receiving waste and expected to continue to receive waste for an additional 70 years (Clean Harbors, 2015). Therefore, the proposed project impacts on hazardous waste impacts are less than significant.

Mitigation Measures

No significant adverse impacts from the proposed project on solid and hazardous wastes are expected; therefore, no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVII.	**TRANSPORTATION AND TRAFFIC.** Would the project:				
a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☑	☐
b)	Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☑	☐
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☑
d)	Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☐	☐	☑
e)	Result in inadequate emergency access?	☐	☐	☐	☑
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☑

Significance Criteria

The impacts on transportation and traffic will be considered significant if any of the following criteria apply:

- Peak period levels on major arterials are disrupted to a point where level of service (LOS) is reduced to D, E or F for more than one month.
- An intersection's volume to capacity ratio increase by 0.02 (two percent) or more when the LOS is already D, E or F.
- A major roadway is closed to all through traffic, and no alternate route is available.
- The project conflicts with applicable policies, plans or programs establishing measures of effectiveness, thereby decreasing the performance or safety of any mode of transportation.
- There is an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.
- The demand for parking facilities is substantially increased.
- Waterborne, rail car, or air traffic is substantially altered.
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.
- The need for more than 350 employees.
- An increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round trips per day.
- Increase customer traffic by more than 700 visits per day.

Discussion

XVII. a) and b) Access to the Hixson Facility if provided from Production Place, which is accessed from Placentia Avenue and Newport Boulevard. Parking at Hixson is limited and most employees park along Production Place. Based on recent traffic analyses in the area, intersections operate at level of Service (LOS) A through D during the morning peak hour and LOS A through C during the evening peak hour (Newport Beach, 2015).

An estimated 15 construction workers would be commuting to the Hixson during peak construction activities. Construction workers are expected to arrive at the work site between 6:30-7:00 a.m. and depart about 5:30-6:00 p.m., which would generally avoid peak traffic conditions. The increase in construction worker traffic in the area is temporary and would cease following completion of construction activities. Therefore, no significant traffic impacts are expected during construction activities, and impacts are less than significant.

Operation of the proposed project is not expected to result in an increase in employees; therefore, no increase in operational traffic or peak hour traffic is expected. The proposed project will increase the use of caustic with an estimate of about 83 trucks per year or about one – two trucks per week (see further discussion in Section VII – Hazards and Hazardous Materials), but will not change the daily truck trips per day. Truck trips to deliver caustic would likely be scheduled to avoid the more congested peak hours. The proposed project would not meet the criteria for a Congestion Management Plan traffic impact analysis and no further traffic analysis is warranted. Traffic impacts associated with the proposed project would be less than significant.

XVII. c) The proposed project includes modifications to existing facilities and new structures at the existing Hixson Facility. The new structures would be similar in height and appearance to the existing Facility structures. Consequently, the new structures are not expected to result in a change to air traffic patterns. The nearest airport is located about 7 miles northeast of the Facility. In addition, the proposed project would not involve the delivery of materials via air so no increase in air traffic is expected.

XVII. d) and e) The proposed project is not expected to substantially increase traffic hazards or create incompatible uses at or adjacent to the site. The proposed project does not include construction of roadways on-site or off-site that could include design hazards. Emergency access at the Hixson Facility would not be impacted by the proposed project in that no on-site roadways would be altered as a result of the proposed project. Therefore, no changes to emergency response plans are expected as a result of the proposed project.

XVII. f) The proposed project would be constructed within the confines of an existing Facility. It is not expected to conflict with adopted policies, plans, or programs supporting alternative transportation modes (e.g., bus turnouts, bicycle racks).

Mitigation Measures

No significant adverse impacts to transportation/traffic are expected and thus no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVIII.	**MANDATORY FINDINGS OF SIGNIFICANCE.**				
a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☑
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	☐	☐	☑	☐
c)	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☑	☐	☐

Discussion

XVIII. a) The proposed project does not have the potential to adversely affect the quality of the environment, reduce or eliminate any animal species, or destroy prehistoric records. Ornamental trees would be removed and a mitigation measure has been provided to minimize the potential impacts on migratory birds. The proposed project is located at a site that is part of an existing industrial facility, and does not contain biological resources. Hixson has been previously disturbed, graded, and developed, and the proposed project would not extend into environmentally sensitive areas, but would remain within the confines of an existing, operating facility. For additional information, see Section IV. – Biological Resources.

The project site is not identified as containing any historic or culturally significant resources. Therefore, project implementation would not eliminate important examples of the major periods

of California history. Further, the project site has already been subject to extensive disruption and no additional grading is required. Given the highly disturbed condition of the site, the project impacts on archaeological resources are expected to be less than significant. For additional information, see Section V– Cultural Resources.

XVIII. b) The proposed project is not expected to result in significant adverse cumulative environmental impacts. As discussed in Section III, construction and operational emissions are not expected to be significant or exceed the SCAQMD regional significance thresholds. The proposed project's construction emissions were also compared to the SCAQMD LSTs. In all cases, the construction emissions were below the LSTs. Therefore, construction air quality impacts are not considered to be cumulatively considerable as defined in CEQA Guidelines §15064(h)(l). Consequently, cumulative construction air quality impacts are not considered to be significant.

The proposed project would enclose existing equipment, install additional air pollution control equipment, and implement a Dust ~~Mitigation~~ Minimization Plan (see Appendix A). The proposed project is expected to result in a less than significant increase in criteria pollutants from operations and is expected to reduce TAC emissions. The reduction in TAC emissions associated with the operation of the Hixson Facility provides beneficial air quality and reduces health risk impacts. Therefore, air quality impacts are expected to be beneficial and would not result in significant adverse cumulative impacts.

The proposed project is not expected to generate significant adverse impacts associated with hazards and hazardous materials as discussed in Section VIII. The increased use of caustic would not change the magnitude or location of any existing hazard impacts. Therefore, no significant adverse project-specific increase in hazards is expected, so hazard impacts are not considered to be cumulatively considered as defined in CEQA Guideline §15064(h)(l). Therefore cumulative hazard impacts are concluded to be less than significant.

The construction activities associated with the proposed project that generate noise would be carried out during daytime hours. A noise impact analysis was performed and is included in Section XII herein. Because of the nature of the construction activities, the types, number, operation time, and loudness of construction equipment would vary throughout the construction period. Construction noise sources would be temporary and would cease following completion of construction activities. Construction noise levels at the closest residential areas would increase but are temporary and mitigation measures are expected to reduce noise impacts to less than significant. Operational noise impacts are expected to be mitigated through the use of noise barriers so that noise impacts are expected to be less than significant. Project-specific noise impacts associated with the proposed project are expected to be less than, and in compliance with, the local noise ordinance and less than significant and, therefore, are not cumulatively considerable as defined in CEQA Guideline §15064(h)(l). Therefore, cumulative noise impacts would be less than significant.

A maximum of 15 construction workers are expected to be required during peak construction activities and are temporary. The proposed project is not expected to generate significant adverse project-specific traffic impacts as discussed in Section XVII. Therefore, cumulative traffic

impacts during the construction phase are less than significant. No increase in traffic is expected due to the operation of the proposed project as no additional workers would be required. Therefore, cumulative traffic impacts during operation of the proposed project are less than significant.

Where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, a lead agency need not consider the effect significant, but must briefly describe the basis for concluding that the incremental effect is not cumulatively considerable. Therefore the project's contribution to air quality, hazards, noise and traffic and all other environmental topics evaluated in this MND are not cumulatively considerable and thus not significant. This conclusion is consistent with CEQA Guidelines §15064 (h)(4), which states, "The mere existence of cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable". Therefore, the proposed project is not expected to result in significant adverse cumulative impacts.

XVIII. c) The proposed project would enclose existing equipment, install additional air pollution control equipment, and implement a Dust ~~Mitigation~~ Minimization Plan (see Appendix A). The proposed project is not expected to result in an air emission increase but is expected to reduce the toxic air contaminant emissions and the related health risks associated with the operation of the Hixson Facility providing beneficial air quality and health risk benefits. Therefore, the proposed project is expected to have a beneficial impact on human beings by reducing toxic emissions and the health risks associated with the operation of the Hixson Facility. Mitigation measures have been imposed for potentially significant aesthetic impacts (see discussion under environmental topic "Aesthetics"), air quality impacts during construction activities (see discussion under environmental topic "Air Quality and Greenhouse Gases"), and noise impacts during operations (see discussion under environmental topic "Noise"). With the implementation of the mitigation measures imposed, the proposed project impact is expected to be less than significant.

2.6 REFERENCES

California Air Pollution Control Officers Association (CAPCOA), 2013. California Emissions Estimator Model User's Guide: Appendix D. ENVIRON, July 2013. http://www.aqmd.gov/docs/default-source/caleemod/caleemod-appendixd.pdf?sfvrsn=2

City of Newport Beach General Plan, 2006 Land Use Map

City of Newport Beach General Plan Update EIR, 2006

City of Newport Beach, 2015. Ebb Tide Project at 1560 Placentia Avenue, City of Newport, Orange County, California, Initial Study/Mitigated Negative Declaration. July 2015.

California Energy Commission (CEC), 2012. Retail Gasoline Sales by County. http://energyalmanac.ca.gov/gasoline/retail_fuel_outlet_survey/retail_gasoline_sales_by_county.html (accessed September 16, 2015).

CEC, 2012a. Retail Diesel Sales by County. http://energyalmanac.ca.gov/gasoline/retail_fuel_outlet_survey/retail_diesel_sales_by_county.html (accessed September 16, 2015).

CEC, 2014. California Energy Demand 2014-2024 Final Forecast, Volume 2: Electricity Demand by Utility Planning Area, January 2014. http://www.energy.ca.gov/2013publications/CEC-200-2013-004/CEC-200-2013-004-V2-CMF.pdf (downloaded September 16, 2015).

Clean Harbors, 2015. Personal communication with Les Ashwood, Clean Harbors 435-884-8967, October 16, 2015.

Clean Harbors, 2015b. Clean Harbors Buttonwillow, Transportation and Disposal Fact Sheet. Accessed, November 2, 2015. http://clark.cleanharbors.com/ttServerRoot/Download/12381_FINAL_Buttonwillow_CA_Facility_FS_030108.pdf

Dow, 2010. Caustic Soda Solution Handbook, August 2010. http://msdssearch.dow.com/PublishedLiteratureDOWCOM/dh_04fa/0901b803804fa679.pdf?filepath=causticsoda/pdfs/noreg/102-00011.pdf&fromPage=GetDoc (accessed September 17m2015)

DTSC, 2015. DTSC Envirostor Database for Hixson Metal Finishing 71002205. Accessed on September 9, 2015. http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id= 71002205

DWR, 1961. Planned Utilization of the Ground Water Basins of the Coastal Plains of Los Angeles County, Appendix A – Ground Water Geology, Bulletin No. 104, pp. 101, June 1961. http://www.water.ca.gov/waterdatalibrary/docs/hi storic/Bulletins/Bulletin_104/Bulletin_104-A__1961.pdf (downloaded June 7, 2013).

FHWA, 2011. Federal Highway Administration Noise Barrier Design Handbook, Table 3. Accessed on October 2, 2015. http://www.fhwa.dot.gov/environment/noise/ noise_barriers/design_ construction/design/index.cfm

Jacobsen, 2010. "Enhancement of Local Air Pollution by Urban CO2 Domes," Environmental Science and Technology, as describe in Stanford University press release on March 16, 2010. http://news.stanford.edu/news/2010/march/urban-carbon-domes-031610.html (accessed June 7, 2013).

Newport Beach, 2006. General Plan EIR, July 25, 2006. http://www.newportbeachca.gov /government/departments/community-development/planning-division/general-plan-codes-and-regulations/general-plan/general-plan-environmental-impact-repor

Newport Beach, 2006a. General Plan, July 25, 2006. http://www.newportbeachca.gov /government/departments/community-development/planning-division/general-plan-codes-and-regulations/general-plan

Newport Beach Fire Department, 2015. Personal communication with Raymi Wun, Life Safety Specialist Newport Beach Fire Department 949-644-3106, October 16, 2015.

OEHHA, 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines: The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessment, February 2015.

South Coast Air Quality Management District (SCAQMD), 1993. CEQA Air Quality Handbook, SCAQMD, May 1993. http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993).

SCAQMD, 2003. SCAQMD Cumulative Impacts Working Group White Paper on Potential Control Strategies to Address Cumulative Impacts From Air Pollution, August 2003, Appendix D, Cumulative Impact Analysis Requirements Pursuant to CEQA, at D-3, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative impacts -working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4.

SCAQMD, 2006. Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 CEQA Significance Thresholds. SCAQMD, October 2006.

SCAQMD, 2008. Interm CEQA GHG Significance Threshold for Stationary Sources, Rules, and Plans, December 5, 2008. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2

SCAQMD, 2009. Final Localized Significance Threshold Methodology and Appendices. http://www.aqmd.gov/ceqa/handbook/lst/lst.html

SCAQMD, 2013. Final 2012 Air Quality Management Plan. South Coast Air Quality Management District. February, 2013. http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan

SCAQMD, 2015. Conditional Approval of Rule 1402 Risk Reduction Plan for Hixson Metal Finishing, Newport Beach (SCAQMD I.D. No. 11818), July 24, 2015, http://www.aqmd.gov/docs/default-source/planning/risk-assessment/hixson-metal-finishing/hixson-rrp-approval-letter.pdf?sfvrsn=2

Solomon, 2007. Climate Change 2007: The Physical Science Basis, 2007. http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4_wg1_full_report.pdf

Tinsley, J.C ., T.L Youd, D.M. Perkins, and A.T.F. Chen, 1985. Evaluating Liquefaction Potential. In Evaluating Earthquake Hazards in the Los Angeles Region – An Earth-Science Perspective, ed. J.I. Ziony. U.S. Geological Survey Professional Paper No. 1360. http://pubs.usgs.gov/pp/1360/report.pdf (downloaded June 7, 2013).

Toppozada, T.R., Bennett, J.H., Borchardt, G., Saul, R., and Davis, J.F., 1988. Planning Scenario for a Major Earthquake on the Newport-Inglewood Fault Zone, California Division of Mines and Geology Special Publication 99, pp.197. http://archive.org/download/planningscenario99topp/planningscenario99topp.pdf (downloaded June 7, 2013).

Toppozada, T.R., Bennett, J.H., Borchardt, G., Saul, R., and Davis, J.F., Johnson, C.B., Lagorio, H.J. and Steinbrugge, K.V., 1989. Earthquake Planning Scenario for a Major Earthquake on the Newport-Inglewood Fault Zone, California Geology Vol. 42, no 4, pp.75-84.

U.S. Ecology, 2015. Personal communication with Dan Church, U.S. Ecology, Inc. 800-590-5220. October 16, 2015.

Ziony J.I. and Yerkes R.F., 1985. Evaluating Earthquake Hazards in the Los Angeles Region; an Earth-Science Perspective, USGS Professional Paper 1360, pp.43-91, 1985. http://pubs.er.usgs.gov/publicat ion/pp1360 (downloaded June 7, 2013).

2.7 ACRONYMS

Abbreviation	Description
AQMP	Air Quality Management Plan
BACM	Best Available Control Measure
BACT	Best Available Control Technology
CalARP	California Accident Release Prevention
CalOSHA	California Occupational Safety and Health Administration
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH_4	methane
City	City of Newport Beach, CA
CNEL	Community Noise Equivalence Level
CO	carbon monoxide
CO_2	carbon dioxide
CrVI	hexavalent chromium
dBA	A weighted noise level measurement in decibels
DI	De-Ionized (Water)
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
ERCs	Emission Reduction Credits
FAA	Federal Aviation Administration
Facility	Hixson Metal Finishing Newport Beach Facility
FAR	Federal Aviation Regulations
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
GHGs	Greenhouse Gases
gpm	gallons per minute
gpd	gallons per day
HARP2	CARB Hotspots Analysis Reporting Program Model 2
HEPA	High-efficiency Particulate Air
HFCs	hydrofluorocarbons
Hixson	Hixson Metal Finishing
HRA	Health Risk Assessment
HSC	Health and Safety Commission
IG	Industrial Zoning Designation
kW	kilowatt
lb/day	pounds per day
LOS	Level of Service
LST	Localized Significance Threshold
MAHI	Maximum Acute Hazard Index
MCHI	Maximum Chronic Hazard Index
MEIR	Maximally Exposed Individual Resident
MEIW	Maximally Exposed Individual Worker

MND	Mitigated Negative Delaration
MT/yr	metric tons per year
MTCO2e	Metric Tons of CO_2 Equivalent Emissions
MW	megawatt
N_2O	nitrous oxide
NAHC	Native American Heritage Commission
NO_2	nitrogen dioxide
NOP/IS	Notice of Preparation and Initial Study
NOx	nitrogen oxide
NSR	New Source Review
OEHHA	Office of Environmental Health Hazard Assessment
OSHA	Occupational Safety and Health Administration
PAHs	Polycyclic Aromatic Hydrocarbons
PFCs	perfluorocarbons
PM10	particulate matter less than 10 microns in diameter
PM2.5	particulate matter less than 2.5 microns in diameter
PM	particulate matter
ppmv	parts per million volume
Proposed Project	Hixson Metal Finishing Risk Reduction Project
PTE	Permanent Total Enclosure
PVC	polyvinyl chloride
RCRA	Resource Conservation and Recovery Act
REL	Reference Exposure Levels
RM	Multiple Unit Residential Zoning Designation
RRP	Risk Reduction Plan
RWQCB	California Regional Water Quality Control Board
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SF_6	sulfur hexafluoride
SOx	sulfur oxide
TACs	toxic air contaminants
ULPA	Ultra-low Particulate Air
VOC	volatile organic compound

APPENDIX A

DUST MINIMIZATION PLAN

DUST MINIMIZATION PLAN – HIXSON METAL FINISHING

SCOPE

This document establishes procedures for the minimization and control of fugitive chrome containing emissions and dust resulting from all housekeeping, facility and equipment related operations and processes, and construction activities at the HMF facility.

DUST MINIMIZATION RESPONSIBILITIES

Production Supervisors

Along with the Environmental/Health and Safety (EHS) Manager, Production Supervisors are responsible for minimizing the generation and displacement of chrome dust emissions by implementing the provisions of this program. Production Supervisors shall be responsible for the training of their employees as to the provisions of this document (see Appendix D – Training Requirements) and shall keep sufficient quantities of required equipment on site in readily accessible locations.

Environmental/ Health and Safety Manager (EHS)

Along with the Production Supervisors, the EHS Manager is responsible for minimizing the generation and displacement of chrome dust emissions by implementing the provisions of this program.

All Managers/ Employees

All employees of HMF, regardless of position, shall follow the requirements set forth in this document and encourage and enforce fellow employees do so.

Visitors and Contractors

All contractors who may enter any of the areas listed within this document shall be advised of, and shall comply with, the applicable program requirements therein (see Appendix D – Training Requirements).

DUST MINIMIZATION PLAN

The proposed Policies and Procedures documented herein shall be implemented and followed throughout the HMF facility for the minimization and control of fugitive chrome containing emissions and dust resulting from all housekeeping, facility and equipment related operations and processes, and construction activities at the HMF facility.

FACILITY-WIDE PROVISIONS FOR DUST MINIMIZATION

Flat Surface Areas

All flat surfaces (carts, tops of equipment, shelves, etc.) shall be maintained, as far as practicable, free from accumulations of dusts and/or residue. The use of compressed air used during general housekeeping to clean any of these surfaces as indicated above is strictly prohibited. Compressed air may be used in the paint booths and the scuffing/sanding booth to clean off parts and material prior to and after painting/scuffing/sanding operations. Compressed air may also be used within the processing departments in order to dry processed parts and/or material but only after they have been thoroughly rinsed. Compressed air shall not be used at or adjacent to any processing tank containing chromium.

Spills

All spills and releases shall be cleaned up immediately and shall be reported as required by federal, state and/or local requirements.

Cleaning

All dry residues shall be cleaned up by the use of a HEPA filtered vacuum

Procedures and/or by the use of a damp cloth or wet mop. All spills in liquid form shall be wiped up using a rag or sorbent and disposed of properly. All cleaning materials used shall be disposed of properly (Contact the Waste Treatment Manager for additional information on proper disposal methods).

Disposal In the process of mixing, spraying or cleaning of equipment used to mix or spray paints or coatings, contaminated waste may be produced. This may include, but may not be limited to, gloves, overalls, rags, paper liners, tape, respirator filters, etc. All contaminated waste shall be disposed of properly in sealed, impermeable bags or other closed, impermeable containers.

NOTE: All bags or containers of contaminated waste shall be labeled according to federal, state and/or local requirements.

SITE-SPECIFIC PROVISIONS FOR DUST MINIMIZATION

BUILDING 1 **817 Production Place, Newport Beach, CA 92663**

Background Building 1 is approximately 7,000 ft^2 and contains the executive offices, the accounting department, the Vacuum Cadmium (VacCad) deposition department, Ovens 2, 5 and 9, the main shipping department and the Parker cell (shipping/receiving department dedicated to Parker Hannifin and their contractors).

For a list of all applications submitted, pursuant to the approved Risk Reduction Plan for this building, refer to Appendix F.

Potential Sources of Chrome Emissions A potential source of fugitive chromic emissions is from Tank 100 - (Cadmium Chromate conversion coating) located in the VacCad department (Application Number 565743).

Tank 100 will be removed from service once the conversion of the General Plate Department in Building 3 is completed. Once Tank 100 is removed from Building 1, no chromic processes will be conducted in this building.

Construction Activities

Tank 100 Removal

Once the General Plate department has been reconfigured to its future state, Tank 100 will be removed from service in accordance with the California Fire and Health and Safety Codes.

- The contents of the tank will be removed from the tank via the use of an air powered diaphragm pump and will be placed into drums and/or totes.
- The tank will be rinsed and the rinse water will be pumped into drums for disposal via the onsite waste treatment system.
- The tank will be plastic wrapped and sealed prior to removal and storage.
- The contents of the tank will either be reused or will be shipped offsite for disposal.

HEPA Chamber Installation

Installation of the HEPA system on the exhaust of the VacCad chamber is not anticipated to create any chromium-containing fugitive dust emissions.

Dust Minimization Procedures

Floors within the VacCad department shall be HEPA vacuumed and/or wet mopped at the end of each production day.

BUILDING 2 — 829 Production Place, Newport Beach, CA 92663

Background

Building 2 (approximately 10,000 ft^2) contains the front office area (planning), the upper offices (manager's offices, estimating/quoting), the customer service department, the quality department, the existing anodize department and the new anodize department/construction area.

For a list of all applications submitted, pursuant to the approved Risk Reduction Plan for this building, refer to Appendix F.

Potential Sources of Chrome Emissions

Potential fugitive chrome emission sources within this building include the existing anodize line (Permit Number G9837), associated chromic scrubber (Permit Number G9838) and the new anodize construction area and associated scrubbers (Application Numbers 577550, 577551, 577552 and 577555). Other non-equipment related activities that may be a contributing source of fugitive chrome containing emissions/dust include maintenance activities that may be required upon the processing tanks/line (general maintenance, solution maintenance, containment maintenance, and scrubber maintenance.

Possible future sources of fugitive chrome emissions from this building would include the new Anodize department. Other non-equipment related activities that may be a contributing source of fugitive chrome containing emissions/dust include maintenance activities that may be required upon the processing tanks/line (general maintenance, solution maintenance, containment maintenance, and scrubber maintenance) NOTE: Due to customer approval requirements, many of the tanks in the new and the old anodize line will be operated concurrently for approximately 3 months.

All chromic containing tanks (Tanks 60, 60A, 63, 70, 75, 75C, 101 and 150) will be directly vented to a new chromic dry scrubber equipped with ULPA filters (Application Number 557551). This scrubber system will effectively control all chromic emissions from these tanks. Other non-equipment related activities that may be a contributing source of fugitive chrome containing emissions/dust include maintenance activities that may be required upon the processing tanks/line (general maintenance, solution maintenance, containment maintenance, and scrubber maintenance).

A new wet acid scrubber (Application Number 577550) that will be equipped with a mesh pad will vent all atmospheric/ambient air from the PTE area. This scrubber will effectively capture all ambient acid fumes/emissions.

In addition to the scrubbers as indicated above, the entire area that comprises the new anodize line and the old anodize line will effectively become a PTE (as defined in USEPA Method 204). With the exception of the Natural Draft Opening (NDO) being at least four equivalent opening diameters from each emitting point, Building No. 2 PTE shall be maintained as a PTE per EPA Method 204. This requirement will be stated as a condition in the Permit to Construct and Operate for this PTE, as approved by the Executive Officer. This will be accomplished with addition and the use of fast acting, self-opening and closing roll up doors that will be installed in the northwest and southeast sections of the building. The only remaining opening will be the roll up door that is located in the northeast section of the building in the Receiving Department. This opening will be approximately 100 square feet.

NOTE: After the new anodize line has been installed and approved by our customers, the old anodize line will be decommissioned and removed. The future use of this area has not yet been determined.

Construction Activities

New Anodize Line

Concrete Removal

At this point in time the only major construction operation that we foresee that could cause significant fugitive emissions will be from the break up and haul off of the concrete foundation. This is due to the fact that older concrete may contain detectable amounts of chromium in its makeup. In August of 2015, the foundation was removed and the new concrete flooring was poured. Prior to these operations, the entire mezzanine area was sealed using layers of plastic. In addition, during all concrete cutting and/or breakup, wet methods that included wetting down of the area during the cutting/breaking process and during the removal process were used in order to minimize dust formation.

Installation of equipment, Mezzanine

Most penetrations of the mezzanine will be made during the pouring of the concrete that will make up the roof of the mezzanine. Therefore concrete cutting and/or coring will be minimized as much as possible. During the installation of equipment if any penetrations of the roof are required they will be carried out with the use of wet procedures that will include the wetting down of the area before and during the cutting/breaking process. In the case that small penetrations (drilled holes using handheld drill drivers) may be required the use of wet procedures that would include the use of water bottles/sprayers and/or the use of HEPA vacuums will be used to collect any dusts that may be created, as necessary.

Scrubber Removal

Prior to the removal of the existing chromic scrubber system, HMF will notify the SCAQMD of the date and the approximate start time of removal at least 24 hours prior to the removal procedure as indicated below. This notification will be provided via phone using the SCAQMD 1(800) CUT-SMOG number.

The existing scrubber that serves tank 70 (chromic acid anodize) will be

replaced with a new scrubber that will serve tank 70 in addition to other tanks located in the anodize department. This new scrubber will also serve the waste treatment and patio areas.

The exterior of the existing scrubber will be cleaned with the use of damp clothes and/or wet moping prior to disassembly.

The wash down procedures will be implemented multiple times in order to remove any chromic residue from the interior of the scrubber.

As the scrubber is disassembled, the individual pieces will be plastic wrapped and sealed prior to removal from the building.

The entire area where the scrubber was located and the surrounding area will be HEPA vacuumed and/or wet mopped after disassembly and removal.

All removed ductwork will be plastic wrapped and sealed prior to removal from the building.

Abandoned Duct Removal

Prior to the removal of the abandoned duct, HMF will notify the SCAQMD of the date and the approximate start time of removal at least 24 hours prior to the removal procedure as indicated below. This notification will be provided via phone using the SCAQMD 1(800) CUT-SMOG number.

Some ductwork that has been in place since the original scrubber system was replaced in 2010 will be removed. Prior to any disturbance, demolition, removal and/or renovation activity, an asbestos survey shall be conducted by a Certified Asbestos Consultant to determine the absence / presence of asbestos containing materials. In the event that asbestos is determined to be present, HMF will comply with the applicable provisions in Rule 1403.

The exterior of the ductwork will be cleaned with the use of damp clothes and/or wet mopped and both ends of the ductwork will be sealed. The ductwork will be removed as a single piece from the top of the roof.

Processing Equipment Installation

It is not anticipated that any fugitive dust will be created during the installation of the new tanks, control equipment, or flooring systems.

Removal of Old Anodize Line

Hixson is currently consulting with outside contractors, as well as our internal maintenance and HAZMAT personnel in order to determine the requirements associated with the removal of any equipment, including but not limited to tanks and/or floor grating, containment and/or foundation in this area. A modification and/or addendum to this document will be supplied to the district prior to removal.

Future Dust Minimization Procedures

Production floors surrounding the anodize line shall be cleaned using a vacuum equipped with HEPA filters and/or wet mopped at the end of each production day.

Drag out minimization procedures shall be used to limit drag out of process solutions from the processing tanks. These procedures shall be in accordance with Rule 1469.

Any drag out that may accumulate on the edge of a process tank shall be wet wiped with a wet/damp cloth immediately following the use of the tank.

The use of compressed air shall be limited to the drying of parts and/or materials that have been thoroughly rinsed and contain no residue of processing liquids. Compressed air shall not be used at or adjacent to any processing tank containing chromium.

Between Buildings 2 and 3

Background

This area contains all waste treatment operations (Application Number 577556), the Patio area, a part/material storage area and an area where a roll off bin containing F006 filter cake from the waste treatment operations is stored.

For a list of all applications submitted, pursuant to the approved Risk Reduction Plan for this building, refer to Appendix F.

Potential Sources of Chrome Emissions

Potential sources of fugitive chrome emissions from this area include the waste treatment operations (open tanks), Tank 111 of the Cadmium Plating Line, and the F006 roll off bin. Other non-equipment related activities that may be a contributing source of fugitive chrome containing emissions/dust include the transfer process of the F006 filter cake and the movement of tank solutions for waste treatment by metering into the waste treatment system.

It is proposed that the majority of the open tanks in the waste treatment and all of the tanks in the Patio area will be placed in a PTE that will be served by the same chromic scrubber system that serves all the chromic containing tanks in the new anodize line. This scrubber will provide approximately 1000 CFM of pull from this area. The PTE will comprise of plastic curtains that will be installed at the edge of the patio cover and extend to no more than ½ inch above ground level. Except for Tank 111, the tanks located in the patio area contain no chromic containing process tanks. Other non-equipment related activities that may be a contributing source of fugitive chrome containing emissions/dust include the transfer process of the F006 filter cake and the movement of tank solutions for waste treatment by metering into the waste treatment system.

In addition, the open waste treatment tanks (Application Number 577556) (final pH adjustment, Lemmella, and the flocculent tanks) located outside the PTE will be covered to reduce and/or eliminate any possible fugitive emissions.

Potential sources of fugitive chrome emissions from this area would be limited to the F006 filter cake roll off bin that will be covered while not in

use and during the transfer of material from the filter press to the roll off bin. Please see Dust Minimization Procedures below for additional information.

Construction Activities

Waste Treatment Tank Covers

These covers will be constructed off site and installed on the final pH, Lemmella, and flocculent tanks. No fugitive dust due to these activities is anticipated.

Curtain Installation

The curtains will be installed along the entire length of the patio cover. This will be installed with the use of curtain wall retaining mounts that will be screwed into the fascia board of the patio. No chromic containing dusts are anticipated.

Ducting Installation

Prior to any disturbance, demolition and/or renovation activity, an asbestos survey shall be conducted by a Certified Asbestos Consultant to determine the absence / presence of asbestos containing materials. In the event that asbestos is determined to be present, HMF will comply with the applicable provisions in Rule 1403.In order to better control any possible dusts that may be created during the process of cutting the access penetrations in the roof of the patio, HMF will construct a Temporary Total Enclosure (TTE) that will be placed over the area of penetration prior to the commencement of cutting activities.

The TTE will be approximately 10' x 10' (size may change due to scope of work) and will comprise of a frame support structure made from PVC piping/tubing. The frame will be covered with plastic sheeting that will extend beyond ground level. At ground level the plastic will be taped and/or weighted to the roof surface as appropriate. A HEPA equipped vacuum/portable scrubber will be installed in order to filter all air removed from the TTE and provide negative pressure during cutting/penetration operations

The ducting coming from the chromic scrubber located on Building 2 will penetrate through the roof of the patio cover and vent the patio/waste treatment area. The curtain system as indicated above shall be in place prior to the installation of the duct work. Plastic sheeting will be placed below any penetrations that will be required to be made in the patio cover. All penetrations will be made from the roof top direction (if possible) with the use of HEPA vacuums to capture any fugitive dust while cutting the penetrations. After all penetrations have been completed, the plastic under the penetrations will be carefully removed, folded in a manner that will capture all dust and will then be disposed of. In addition, the roof top area within the TTE will be HEPA vacuumed prior to the removal of the TTE. Any dust/debris that would be caused during the installation of the ductwork and inlets will be controlled with the use of HEPA vacuums.

Dust Minimization Procedures

The F006 filter cake roll off bin shall be kept closed at all times unless material is being added to the bin or maintenance activities require the lid to be opened for access purposes. Any material that is spilled on or around the roll off bin or the filter press during the transfer process shall be immediately

cleaned up using a HEPA equipped vacuum and/or wet mopped after the transfer process.

Prior to the removal of the filter cake from the filter press, the bin shall be wet mopped and/or then HEPA vacuumed. A layer of plastic shall then be placed in the filter cake transfer bin. During removal of the filter cake from the press the filter plate being emptied shall be in a position such that the filter cake falls directly into the bin therefore minimizing the possibility of spillage of the filter cake outside of the bin. The area surrounding the filter cake bin shall be HEPA vacuumed immediately after the removal of the filter cake from the filter press. If after the removal of the filter cake from the filter plates, the bin is not full, the plastic shall be wrapped over the contents of the bin and temporarily sealed. Once the filter cake transfer bin is full, the plastic shall be used to "burrito" wrap the filter cake. After the filter cake is securely contained within the plastic wrapping, the plastic wrapping shall be wiped down with a wet cloth as practical. Only then can the filter cake be transported to the filter cake roll off bin.

Tank covers shall remain in place at all times except during times of maintenance and/or operations requiring their temporary removal.

BUILDING 3 — 835 Production Place, Newport Beach, CA 92663

Background

At present, Building 3 (approximately 10,000 ft^2) contains the General Plate department, the Precious Metals department, the R & D department (Electroless Nickel), the chemical lab, the chemical storage area, Ovens 4, 6, 7, 8 and 10, Paint Booth 1 and an associated demasking area. This building comprises the following existing permit/application numbers

Aqueous Line – G9837
Cadmium Line – F-32230
Nickel and Precious Metals Line - F32232
Nickel Line – F32057
Tin Line – F32231
Spray Booth 1 – G8574
Oven 6 – 541003
Oven 7 – 541001

For a list of all applications submitted, pursuant to the approved Risk Reduction Plan for this building, refer to Appendix F.

Potential Sources of Chrome Emissions

Existing potential sources of fugitive chrome emissions within this building are open tanks in the General Plate department and in the Precious Metals department, and the Paint Booth 1 and associated demasking area where masking materials are removed after the application of paint.

Other non-equipment related activities that may be a contributing source of fugitive chrome containing emissions/dust include the movement of racks/materials from the storage areas in Building 4 to the Paint Booth 1 paint area.

Several of the tanks within the General Plate and Precious Metals departments will be relocated and/or replaced in order to facilitate the placement and effectiveness of the scrubber systems to be installed. All chromic bearing tanks will be moved to the General Plate department along the west wall.

Paint Booth 1 and Ovens 6 and 7 and the associated demasking operation will be moved to Building 4 where they will be placed in a PTE.

General Plate Department

A new dry chromic scrubber system equipped with ULPA filters will be installed and will directly vent all chromic bearing tanks located in the General Plate department. A separate Cyanide scrubber/mist eliminator will be installed to directly serve all cyanide containing tanks in the General Plate and Precious Metals departments.

Possible acid fume/emissions will be controlled via the wet acid scrubber that also serves the Anodize Department located in Building 2. This scrubber will pull from the ambient atmosphere of the entire PTE. In addition, a wall will be constructed at the entrance to the General Plate department that will effectively provide this area with a PTE. The size of the natural draft openings (NDOs) will be limited to two 3'x7' openings that will be used for entrance into and exit from the department.

Precious Metals Department

All chromic bearing tanks will be removed from this department and placed in the General Plate department. Therefore, no chromic scrubber or PTE will be required for this department. The cyanide scrubber/mist eliminator that serves the General Plate department will also vent all cyanide-containing tanks in the Precious Metals department along the west and south walls. The acid scrubber that serves the Anodize and General Plate departments will collect ambient atmosphere from within the Precious Metals department.

Remaining potential sources of fugitive chrome containing emissions and dust from this building will be from the General Plate Department where all chromic containing process tanks will be located within this building.

Construction Activities

Scrubber Removal

Both the cyanide and acid scrubbers will have to be removed prior to the installation of the chromic scrubber that will serve the General Plate department. These existing scrubbers were not used to directly vent any chromic containing tanks and therefore chromic containing dusts are not anticipated. The scrubbers will be disconnected from all duct work and will be allowed to run through their downwash cycles in order to clean the interior packing material. The scrubbers rinse water will then be removed and treated using the onsite waste treatment system. The exterior of the scrubbers will be wet wiped and/or wet mopped prior to disassembly. The scrubber will be disassembled and plastic wrapped and sealed prior to removal from the area. All debris will be shipped offsite for disposal.

Scrubber Installation

In order to better control any possible dusts that may be created during the process of cutting the access penetrations in the roof of Building 3, HMF will

construct a Temporary Total Enclosure (TTE) that will be placed over the area of penetration prior to the commencement of cutting activities.

The TTE will be approximately 10' x 10' (size may change due to scope of work) and will comprise of a frame support structure made from PVC piping/tubing. The frame will be covered with plastic sheeting that will extend beyond ground level. At ground level the plastic will be taped and/or weighted to the roof surface as appropriate. An HEPA equipped vacuum/portable scrubber will be installed in order to filter all air removed from the TTE and provide negative pressure during cutting/penetration operations.

It is not anticipated that the installation of the actual scrubbers will cause any chromic containing dusts since these scrubbers will be new equipment. During the installation of any penetrations that will be required through the roof of the building, a TTE as described above will be used and a layer of plastic will be placed under the area of the roof that is to be worked upon. This plastic will be sealed to the bottom of the roof in order to catch all dust/debris that would be caused during the cutting process. The area comprising the TTE will be HEPA vacuumed prior to the removal of the TTE.

Tank Removal

All tanks that will need to be removed will be drained of all contents using an air powered diaphragm pump. The tank shall then be fully rinsed and then plastic wrapped prior to the removal from the area. All rinse water shall be collected and treated via the onsite waste treatment system. All tank contents that will be removed will either be reused or shipped offsite for disposal.

Tank Installation

It is not anticipated that the installation of the tanks will cause any chromic containing dust/debris.

Paint Booth 1 Relocation

Prior to the movement of the paint booth, HMF will notify the SCAQMD of the date and the approximate start time of removal at least 24 hours prior to the removal procedure as indicated below. This notification will be provided via phone using the SCAQMD 1(800) CUT-SMOG number.

Paint Booth 1 shall be relocated to Building 4.

- All filters shall be removed from the booths as described in Appendix B prior to any disassembly operations.
- All roll up doors shall be closed during the cleaning and disassembly procedures.
- All electrical and compressed air supplies shall be disconnected and locked out prior to any disassembly operations.
- If it is required to remove any wall sections prior to booth disassembly, this shall be accomplished using standard construction techniques and dust abatement (or mitigation) procedures. These procedures may require the use of temporary plastic sheeting to enclose the area of demolition and/or the periodic HEPA vacuuming of any dust that may be created. Prior to any disturbance, demolition

and/or renovation activity, an asbestos survey shall be conducted by a Certified Asbestos Consultant to determine the absence / presence of asbestos containing materials. In the event that asbestos is determined to be present, HMF will comply with the applicable provisions in Rule 1403.

- The outer and interior surfaces of the booths shall be wet wiped with a damp cloth prior to any disassembly operations.
- The floor in and around the booth shall be HEPA vacuumed and then mopped prior to any disassembly operations.
- The booth shall be disassembled section by section. In the case of Paint Booth 1 (Permit Number G8574), which must be transported from Building 3 to Building 4, all panels shall be plastic wrapped prior to removal from the building.
- After removal, the entire floor area where the booth used to be shall be HEPA vacuumed and/or wet mopped.
- Any drilling or coring activity that may be required to fix the booths to the foundation or slab will be conducted using HEPA vacuums to capture the dust created or will be conducted as a wet process that will use water as provided by a water bottle/sprayer that will keep the area wet as to control any dusts from becoming airborne.

Oven Relocation (Ovens 6 and 7)

As proposed, Ovens 6 (Application 541003) and 7 (Application Number 541001) will be relocated to Building 4.

- All roll up doors shall be closed during the cleaning and disassembly procedures.
- All electrical and gas supplies shall be disconnected and locked out prior to any disassembly operations.
- If it is required to remove any wall sections prior to booth disassembly, this shall be accomplished using standard construction techniques and dust abatement (or mitigation) procedures. These procedures may require the use of temporary plastic sheeting to enclose the area of demolition and/or the periodic HEPA vacuuming of any dust that may be created. Prior to any disturbance, demolition and/or renovation activity, an asbestos survey shall be conducted by a Certified Asbestos Consultant to determine the absence / presence of asbestos containing materials. In the event that asbestos is determined to be present, HMF will comply with the applicable provisions in Rule 1403.
- The exhaust duct work shall be sealed and wrapped in plastic prior to disassembly.
- The outer and interior surfaces of the oven shall be wet wiped with a damp cloth prior to any disassembly operations.
- The floor in and around the oven shall be HEPA vacuumed and then mopped prior to any disassembly operations.

- The top section containing the fan and burner assembly of the oven shall be removed from the oven as per the manufacturer's instructions.
- Once removed the fan and burner assembly shall be plastic wrapped and sealed prior to removal from the building.
- The oven frame shall be unbolted from the floor and a pre-assembled dolly shall be placed under the oven.
- The oven shall be plastic wrapped and sealed prior to removal from the building.
- All open exhaust ducting shall be sealed at both ends and carefully removed.
- After removal, the entire floor area where the oven used to be shall be HEPA vacuumed and wet mopped.
- Any drilling or coring activity that may be required to fix the booths to the foundation or slab will be conducted using HEPA vacuums to capture the dust created or will be conducted as a wet process that will use water as provided by a water bottle/sprayer that will keep the area wet as to control any dusts from becoming airborne.

Abandoned Duct Removal – General Plate and Precious Metals

Prior to the removal of the abandoned ducting, HMF will notify the SCAQMD of the date and the approximate start time of removal at least 24 hours prior to the removal procedure as indicated below. This notification will be provided via phone using the SCAQMD 1(800) CUT-SMOG number.

All ductwork for the existing cyanide and acid scrubber will be removed at the same time the tanks are removed from this area. All ductwork will be disassembled and immediately plastic wrapped and sealed prior to removal from the area.

Dust Minimization Procedures

Production floors adjacent to the General Plate, Precious Metals, the R & D (Electroless Nickel) departments and the chemical storage area shall be HEPA vacuumed and/or wet mopped at the end of each production day.

Drag out minimization procedures shall be used to limit drag out of process solutions from the processing tanks. These procedures shall be in accordance with the requirements as set forth in Rule 1469

Any drag out that may accumulate on the edge of a process tank shall be wet wiped with a wet/damp cloth immediately following the use of the tank.

The use of compressed air shall be limited to the drying of parts and/or materials that have been thoroughly rinsed and contain no residue of processing liquids. Compressed air shall not be used at or adjacent to any processing tank containing chromium.

Between Buildings 3 and 4

Background

This area contains the bulk chemical storage area where new makeup chemicals, tank solutions and waste chemicals are stored prior to use, reuse and/or shipment offsite for disposal, the OXY chemical storage bunkers, paint storage bunkers, and a parts storage area.

Potential Sources of Chrome Emissions

A potential source of fugitive chrome containing emissions and dust from this area is the OXY chemical storage bunker. Please see Appendix C for additional information about chemical additions. Other related activities that may be a contributing source of fugitive chrome containing emissions/dust include the movement of chemicals and/or wastes that may contain chromium

Dust Minimization Procedures

The OXY chemical storage bunker shall be inspected once per week. During this inspection all surfaces of the bunker, including the flooring, storage shelving, and all containers shall be inspected for any accumulation of dusts. If dusts are found then the storage bunker shall be cleaned using a HEPA vacuum and/or wet wiped/wet mopped. All containers shall be inspected for any leaks or signs of corrosion and that these containers are securely sealed.

Building 4 — 847/853 Production Place, Newport Beach, CA 92663

Background

Building 4 (approximately 10,000 ft^2) contains the Paint Booth 2 and associated demasking area where masking materials are removed after paint operations, the sanding/scuffing booth, Ovens 3, 11, and 12, paint rack storage, and paint storage.

Ovens 6 and 7 and Paint Booth 1 and the associated demasking area will be relocated from Building 3 to Building 4. In addition, another oven (Oven 14) and another Paint Booth (number 3) will be installed. All existing maintenance and masking operations, along with the shipping/receiving operations located in Building 4 have been relocated to Building 5.

Note that the masking and maintenance operation have already been moved to Building 5.

For a list of all applications submitted, pursuant to the approved Risk Reduction Plan for this building, refer to Appendix F.

Potential Sources of Chrome Emissions

At present, potential sources of fugitive chrome emissions from within this building include the paint rack storage area, Paint Booth 2 and associated demasking area and the sanding/scuffing booth.

Construction Activities

Building 4 will contain the Paint Booths 1 (Application Number 577224), 2 (Application Number 577223) and 3 (Application Number Unknown), the associated demasking area, Ovens 6 (Application Number 577225), 7 (Application Number 577226), 12 (Application Number 577227) and 14 (Application Number Unknown), the sanding/scuffing booth (Application Number 577230), paint rack storage, and paint storage.

Relocation of Paint Booth 2

As proposed, Paint Booth 2 (Application Number 577223) will be relocated within Building 4.

- All filters shall be removed from the booths as described in Appendix B prior to any disassembly operations.
- All roll up doors shall be closed during the cleaning and disassembly procedures.
- All electrical and compressed air supplies shall be disconnected and locked out prior to any disassembly operations.
- If it is required to remove any wall sections prior to booth disassembly, this shall be accomplished using standard construction techniques and dust abatement (or mitigation) procedures. These procedures may require the use of temporary plastic sheeting to enclose the area of demolition and/or the periodic HEPA vacuuming of any dust that may be created. Prior to any disturbance, demolition and/or renovation activity, an asbestos survey shall be conducted by a Certified Asbestos Consultant to determine the absence / presence of asbestos containing materials. In the event that asbestos is determined to be present, HMF will comply with the applicable provisions in Rule 1403.
- The outer and interior surfaces of the booth shall be wet wiped with a damp cloth prior to any disassembly operations.
- The floor in and around the booth shall be HEPA vacuumed and then mopped prior to any disassembly operations.
- Paint Booth 2 (Permit Number G8577) shall be disassembled section by section, as practical (some section may remain intact in order to facilitate easier movement and reassembly of the panel sections within the building).
- The main filter sections shall be plastic wrapped prior to any relocation within the building.
- After removal, the entire floor area where the booth used to be shall be HEPA vacuumed and/or wet mopped.
- Any drilling or coring activity that may be required to fix the booths to the foundation or slab will be conducted using HEPA vacuums to capture the dust created or will be conducted as a wet process that will use water as provided by a water bottle/sprayer that will keep the area wet as to control any dusts from becoming airborne.

Relocation of Sanding/Scuffing Booth

As proposed, the sanding/scuffing booth (Application Number 577230) will be relocated within Building 4.

- All filters shall be removed from the booths as described in Appendix A prior to any disassembly operations.

- All roll up doors shall be closed during the cleaning and disassembly procedures.
- All electrical and compressed air supplies shall be disconnected and locked out prior to any disassembly operations.
- If it is required to remove any wall sections prior to booth disassembly, this shall be accomplished using standard construction techniques and dust abatement (or mitigation) procedures. These procedures may require the use of temporary plastic sheeting to enclose the area of demolition and/or the periodic HEPA vacuuming of any dust that may be created. Prior to any disturbance, demolition and/or renovation activity, an asbestos survey shall be conducted by a Certified Asbestos Consultant to determine the absence / presence of asbestos containing materials. In the event that asbestos is determined to be present, HMF will comply with the applicable provisions in Rule 1403.
- The outer and interior surfaces of the booth shall be wet wiped with a damp cloth prior to any disassembly operations.
- The floor in and around the booth shall be HEPA vacuumed and then mopped prior to any disassembly operations.
- The main filter sections the sanding/scuffing booth (Permit Number 542327), shall be plastic wrapped prior to any relocation within the building.
- After removal, the entire floor area where the booth used to be shall be HEPA vacuumed and/or wet mopped.
- Any drilling or coring activity that may be required to fix the booths to the foundation or slab will be conducted using HEPA vacuums to capture the dust created or will be conducted as a wet process that will use water as provided by a water bottle/sprayer that will keep the area wet as to control any dusts from becoming airborne.

Installation of Ambient Air Filtration System

In order to better control any possible dusts that may be created during the process of cutting the access penetrations in the roof of Building 4, HMF will construct a Temporary Total Enclosure (TTE) that will be placed over the area of penetration prior to the commencement of cutting activities.

The TTE will be approximately 10' x 10' (size may change due to scope of work) and will comprise of a frame support structure made from PVC piping/tubing. The frame will be covered with plastic sheeting that will extend beyond ground level. At ground level the plastic will be taped and/or weighted to the roof surface as appropriate. A HEPA equipped vacuum/portable scrubber will be installed in order to filter all air removed from the TTE and provide negative pressure during cutting/penetration operations.

It is not anticipated that the installation of the actual filtration system will cause any chromic containing dusts since the filtration system will be comprised of

new equipment. During the installation of any penetrations that will be required through the roof of the building, the TTE as described above will be used and a layer of plastic will be placed under the area of the roof that is to be worked upon. This plastic will be sealed to the bottom of the roof in order to catch all dust/debris that would be caused during the cutting process. The area comprising the TTE will be HEPA vacuumed prior to the removal of the TTE.

Interior Wall Construction

It is not anticipated that the construction of the wall that will serve as the northern boundary of the PTE will cause any fugitive chromic containing emissions or dust. During the construction process, standard construction dust mitigation procedures will be put in place. These procedures may require the use of temporary plastic sheeting to enclose the area of construction and/or the periodic HEPA vacuuming of any dust that may be created.

Roof Penetrations

In order to better control any possible dusts that may be created during the process of cutting the access penetrations in the roof of Building 4, HMF will construct a Temporary Total Enclosure (TTE) that will be placed over the area of penetration prior to the commencement of cutting activities.

The TTE will be approximately 10' x 10' (size may change due to scope of work) and will comprise of a frame support structure made from PVC piping/tubing. The frame will be covered with plastic sheeting that will extend beyond ground level. At ground level the plastic will be taped and/or weighted to the roof surface as appropriate. A HEPA equipped vacuum/portable scrubber will be installed in order to filter all air removed from the TTE and provide negative pressure during cutting/penetration operations

During the installation of any penetrations that will be required through the roof of the building, a layer of plastic will be placed under the area of the roof that is to be worked upon. This plastic will be sealed to the bottom of the roof in order to catch all dust/debris that would be caused during the cutting process. The area comprising the TTE will be HEPA vacuumed prior to the removal of the TTE.

Abandoned Duct Work

All abandoned duct work will be plastic wrapped and sealed as practical before disassembly and removal.

PTE

A wall will be constructed in order to separate the southern section of the building and provide a PTE where all painting operations will be conducted. This will include Paint Booths 1, 2 and 3, the sanding/scuffing booth, Ovens 6, 7, 12, and 14, and two downdraft tables that will be used during demasking operations.

Dust Minimization Procedures

The new area containing all the painting operations as indicated above will be vented via the booths HEPA/ULPA filtration systems along with a new ambient ULPA filter system that will continuously collect 15,000 CFM from the ambient atmosphere of the PTE. Make up air will be provided with the use of eight 2'x2' filtered openings in the upper wall sections of the PTE wall. Additional make

up air will be provided via filtered duct work that will terminate approximately 6" above and approximately 12" from the openings of the paint booths and the sanding/scuffing booth. There will also be ducts positioned at the approximate center of the downdraft tables.

In order to assure that air from the PTE is not exhausted outside the building into ambient air by the draw from the ovens, the intakes from the ovens shall be extended to penetrate the roof of the building and feed fresh filtered air directly to the ovens.

All potential sources of fugitive chrome containing emissions and dust from this building shall be centralized in an area that is under negative pressure at all times during operations and shall be vented through a HEPA/ULPA filtration systems either by using the collection of ambient air from the paint/sanding/scuffing booths or a dedicated ambient air filter system. The use of compressed air shall be limited to the cleaning of parts that have been recently sanded/scuffed and/or demasked. This process shall only take place within the sanding/scuffing booth, within the paint booths or directly above the downdraft tables. The exhaust fan of the filtration system for that equipment, in or above, where the cleaning with compressed air takes place shall remain turned on throughout the entirety of the cleaning process. The exhaust fan of the filtration system shall remain turned on for at least one minute after the last part and/or material has been processed.

All sanding/scuffing operations shall adhere to the procedures outlined in Appendix A.

All booth filter changes shall adhere to the procedures outlined in Appendix B.

Production floors that serve the Paint Department or the demasking and inspection area shall be HEPA vacuumed and/or wet mopped at the end of each production day.

Super Sack Storage and Removal

The super sacks are delivered to HMF as a two piece kit that contains the super sack bag and a rigid container that is used to hold the super sack bag in place during filling of the super sack. All super sacks shall be stored within the PTE of Building 4 and shall not be removed from the building except for transport to the area requiring the super sack or for shipment off site.

For shipment off-site the super sack bag shall be removed from the rigid container with the use of a forklift. Once removed the super sack bag will be plastic wrapped and may be stored within the PTE without the rigid container. This procedure shall take place within the PTE.

During the transport of the super sack either to the needed location or for the purpose of offsite disposal, the super sack shall be plastic wrapped or shall be inside the rigid container with the lid in place.

Background	This building (approximately 5,000 ft^2) contains the masking and maintenance departments.
Potential Sources of Chrome Emissions	The Maintenance Department, the Masking Department, and the Shipping/Receiving Operations from Building 4 have been relocated to Building 5. There are no sources of potential fugitive chrome containing emissions or dust from this building.
Construction Activities	No construction activities that would create chromic containing fugitive emissions or dusts will be performed in this building.
Dust Minimization Procedures	There are no sources of potential fugitive chrome containing emissions or dust from this building.

Building 6	**816 Production Place, Newport Beach, CA 92663**
Background	This building (approximately 4,000 ft^2) contains administrative offices, a training center and the NDT (Non-Destructive Testing) department.
Potential Sources of Chrome Emissions	There are no equipment-specific sources of possible chromic emissions or dust in this building.
Construction Activities	No construction activities that would create fugitive chromic containing emissions or dust will be performed in this building.
Dust Minimization Procedures	There are no sources of fugitive chrome emissions from this building.

Appendix A
SANDING AND SCUFFING BOOTH OPERATIONS

General Procedures

Prior to, during and after sanding or scuffing operations, the following procedures shall be followed.

- Prior to the loading of parts and/or materials into the booth, the exhaust fan of the filtration system shall be turned on l throughout the entirety of the sanding or scuffing operation.
- Once all parts and/or material to be sanded or scuffed are in place the doors to the booth shall be closed prior to the commencement of any sanding or scuffing operations.
- During sanding or scuffing operations the filtration system shall be continuously operating.
- After sanding or scuffing operations have concluded, the operator shall remove all PPE used within the booth (Tyvek suits, gloves, etc.) while within the booth while the filtration system is turned on and operational.
- While removing parts and/or material from the booth the filtration system shall be turned on and continuously operating.
- The exhaust fan of the filtration system shall remain turned on for at least one minute after the last part and/or material has been processed.

Filter Change Out Procedures

- Safety Information – All safety precautions shall be taken during the inspection, maintenance or changing of any filter media. This shall include the use of all required PPE.
- Filter Description - The sanding and scuffing booth contains a 3 stage filtration system. This includes:
    - Door panel filters – These filters are used to filter the incoming air.
    - Each of the Donaldson Torit DWS dust collector modules contains 4 oval shaped cartridge filters and 2 HEPA filters. These filters are used to filter all outgoing air.
- Filter cleaning – The Donaldson Torit DWS dust collector system contains an air operated pulse cleaning system that prolongs the life of the cartridge filters. This cleaning procedure is automated and is controlled by a control panel that monitors the pressure differential between ambient air and the pressure within the filter media booth. The following set points are in use at this time.
    - Low point – The low point is set at 2.0. No operation of the booth will be allowed if under this setting.
    - Mid-Point – The midpoint is set at 5.5. This is the point where the system will begin to periodically clean/purge the cartridge filters.
    - High Point – The high point is set at 7.5. This is the point where the cartridges have been contaminated to a point where they can no longer be cleaned using the clean/purge process. At this point the filters shall be replaced.
    - Dust Collection Drawers – The Donaldson Torit DWS dust collector system contains one dust collector drawer per unit. These drawers collect the dust that is cleaned/purged from the cartridge filters.

HEPA Filters

The Donaldson Torit DWS dust collector system also contains 2 HEPA filters per unit. These filters are monitored via a set of Magnehelic gauges. These filters cannot be cleaned. Please see below for replacement procedures. The normal operating range for these filters are 0.5 – 2.5. The filters shall be replaced at a reading of 2.5.

Dust Collection Drawer Clean Out Procedures

The dust collector drawer shall be inspected once per week for the accumulation of dust that has been cleaned from the cartridge filters. If dust has accumulated in the drawer the following procedure shall be followed. Records of this inspection shall be maintained on site for a minimum of 3 years.

- Inform the Waste Treatment manager that the inspection and cleaning of the scuffing booth cartridge filters will be taking place prior to commencing the procedures below. This is to ensure that a waste container (and super sack) will be made available prior to removal of possible debris that accumulated in the booth collection drawers.
- The exhaust fans shall NOT be in operation during this process and the booth doors shall be in the closed position.
- Unhook the 4 straps that hold the sanding and scuffing table to the filter unit.
- Pull the sanding and scuffing table back to allow access to the dust collection drawer.
- Carefully remove the dust collection drawer from the filter unit.
- Carefully insert the drawer into a plastic trash bag and empty the contents of the drawer into the bag. Slowly remove the drawer from the bag being careful not to create any dust.
- Carefully seal the plastic trash bag being careful not to create dust while doing so.
- Place the bag in the trash receptacle located within the sanding/scuffing booth.
- Carefully pull the trash bag from the edges of the trash receptacle and securely tie the bag.
- Clean the trash receptacle using a damp cloth prior to placing a new trash bag into the trash receptacle.
- Place a new trash bag in the trash receptacle and secure to the edges.
- Place the drawer back into the filter unit
- Move the sanding and scuffing table back into place and secure with the 4 straps provided.
- Carefully remove the trash bag that contains the collected dust and dispose of the bag in a waste container (super sack) that has been provided by the waste treatment manager. Make sure the lid of the container is replaced after depositing the bag.

Cartridge Filter Replacement Procedures

When the monitoring system indicates that the cartridge filter needs to be replaced follow the procedures below to replace the filters: Records of cartridge replacement shall be maintained on site for a minimum of 3 years and made available upon request.

- Inform the Waste Treatment manager that the scuffing booth cartridge filters will be replaced prior to commencing the procedures below. This is to ensure that a waste container (and super sack) will be made available prior to removal of the filters.
- The exhaust fans shall NOT be in operation during this process and the booth doors shall be in the closed position.
- Unhook the 4 straps that hold the sanding and scuffing table to the filter unit.
- Pull the sanding and scuffing table back to allow access to the cartridge filters.
- Starting with the upper filters, turn the knob counter-clockwise until it is loose.
- Remove the knob and access cover.
- Remove the filter cartridge from the yoke and immediately place in a trash bag and secure the top of the

trash bag.

- Repeat the above process with the remaining cartridge filters.
- Install the filter gasket end on first on the yoke. Turn the knob with the access cover clockwise to seal the cartridge gasket to the tube sheet. Tighten the knob by hand only. Do NOT use wrenches. Repeat for the other cartridge filters.
- Move the sanding and scuffing table back into place and secure with the 4 straps provided.
- Carefully remove the trash bag that contains the filters and dispose of the bags in a waste container (super sack) that has been provided by the waste treatment manager. Make sure the lid of the container is replaced after depositing the bag.

HEPA Filter Replacement

When indicated by the Magnehelic gauges the HEPA filters shall be replaced. Follow the procedure below: Records of HEPA Filter replacements shall be maintained on site for a minimum of 3 years.

- Inform the Waste Treatment manager that the scuffing booth HEPA filters will be replaced prior to commencing the procedures below. This is to ensure that a waste container (and super sack) will be made available prior to removal of the filters.
- The exhaust fans shall NOT be in operation during this process and the booth doors shall be in the closed position.
- Place a waste container as close as possible to the back of the dust collector booth as practical. Remove the cover and verify that the plastic bag inside the waste container is draped over the edge of the waste container
- Remove the 4 wing nuts and hold down brackets securing the HEPA filter to the dust collector.
- Carefully remove the HEPA filter from the dust collector and immediately place the HEPA filter into the waste container.
- Repeat the above procedure for the remaining HEPA filters.
- Secure the cover of the waste container and notify the waste treatment manager of the filter change.
- Place the new HEPA filter into the dust collector and secure with the 4 brackets and wing nuts provided.
- After the HEPA filters have been replaced, the entire area surrounding the booth shall be HEPA vacuumed and/or wet mopped. The exterior of the booth shall be HEPA vacuumed and/or wiped down with a damp cloth.

Personal Hygiene

- Contamination – During the course of sanding or scuffing operations the employees' PPE, face and hands may become contaminated with chrome containing dusts or residue.
- PPE Removal – All PPE, including but not limited to respirators, safety glasses/goggles, "Bunny Suits" and gloves, shall be removed prior to exiting the sanding or scuffing booth. This shall be accomplished while the filtration system is in operation.
- Gloves shall be removed and disposed of within the booth.
- "Bunny Suits" shall be properly disposed of within the booth. If a "Bunny Suit" is to be reused the suit shall be removed and stored within the booth.
- Respirators shall be wiped clean and stored within a closed container prior to removal from the booth. Wipes shall be disposed of within the booth.

- Safety glasses/goggles shall be wiped clean and stored within a closed container prior to removal from the booth. Wipes shall be disposed of within the booth.
- **NOTE** – The use of compressed air to remove chromium containing dusts or residue from PPE shall only occur within the sanding/scuffing booth with the exhaust fan of the filtration system turned on and throughout the entirety of the process. The exhaust fan of the filtration system shall remain turned on for at least one minute after the last item has been processed.
- Washing of Hands and Face – All employees that come into contact with chromium containing dusts or residue shall wash their hands and face at the end of their work shift or prior to eating, drinking, and smoking, chewing tobacco or gum, applying cosmetics, or using the restroom. This procedure shall be carried out in the restrooms located within the PTE area of Building 4 where these activities occur. The restrooms used for this purpose shall be thoroughly cleaned by wet wiping all surfaces and mopping of the floor on a weekly basis.
- No employee shall remove chromium contaminated PPE, clothing, or equipment from the sanding of scuffing booth.
- The storage or consumption of food, drink, tobacco, gum, or cosmetics in any regulated work area is strictly prohibited.

Appendix B
PAINT BOOTH FILTER CHANGE PROCEDURES

Safety Information

All safety precautions shall be taken during the inspection, maintenance or changing of any filter media. This shall include the use of all required PPE. NOTE: Since the acquisition of Paint Booth 3 has not yet occurred, the procedures as indicated below are for Paint Booths 1 (Application Number 577224) and 2 (Application Number 577223) at this time. Once the new booth is acquired these procedures will be modified as necessary to meet the requirements of all booths in operation.

Paint Booths 1, 2 and 3 require the maintenance and changing of the filter media at regular intervals in order to reduce the dust accumulated in the ULPA filters, to comply with SCAQMD Rule 1469.1 and to keep the booths in good running order.

Filter Description

The booths contain a 5 stage filter system as described below.

- Pre-Filters – The pre-filters are 12" x 12" x 1" panel filters that are installed in the openings of the front doors of the paint booths. These filters filter incoming air.
- Blanket Filters – The blanket filter is a one piece filter that is approximately 7 feet in height with the width cut to size to match the width of the booth. This filter catches most of the larger particles therefore extending the life of the other filters.
- Panel Filters – The panel filters are located behind the blanket filter and prior to the pocket filters. These filters are approximately 12" x 12" x 1".
- Pocket Filters – The pocket filters are located behind the panel filters and before the ULPA filters. These filters are approximately 12" x 12" and are 12" in depth in the shape of 2 pockets.
- ULPA Filters – The last stage is the ULPA filters. These filters catch any fine particles (0.03 micron) that may have passed through the other filters prior to discharge to the atmosphere.

Schedule

The change out schedule shall be determined via visual inspection of the filter media and the pressure drop as indicated on the pressure drop gauges attached to the booths.

- Visual – In order to reduce costs associated with the replacement of the ULPA filters, the blanket filter and panel filters shall be visually inspected once per week and replaced as needed.
- Pressure Drop Gauges – The pressure drop gauges shall be monitored and the reading indicated on the log a minimum of once per day. If the pressure drop is at the required change point the blanket filter shall be replaced and the panel filters and pocket filters shall be visually inspected and replaced as required.
- ULPA Filters – The ULPA filters shall be changed when the pressure drop, as indicated on the gauge, indicates that a change is required. DO NOT attempt to change the HEPA filters. Contact your department supervisor if the ULPA filters require changing.

Procedures

The filters shall be changed following the procedure below: Records of HEPA Filter replacements shall be maintained on site for a minimum of 3 years.

- Inform the Waste Treatment manager that the paint booth ULPA filters will be replaced prior to commencing the procedures below. This is to ensure that a waste container (and super sack) will be made available prior to removal of the filters.
- All used filter media shall be stored in one cubic yard waste container that have a super sack installed

within the container.

- All doors and roll up access doors shall be closed during the filter change out process.
- When changing the pre-filters the waste container may be stored just outside the booth while the filters are being removed and stored within the waste container.
- When changing the blanket, panel, or pocket filters the waste container shall be placed inside the booth and all booth doors shall be in the closed position. The electrical safety disconnect at the booth shall be disconnected in order to prevent the ventilation system from activating during the filter change.
- The ventilation systems shall NOT be in operation during the filter change process.
- Gather all required materials prior to starting the filter change process. This may include, but may not be limited to the following:
    - Blanket filter (cut to size)
    - Panel Filters
    - Pocket Filters
    - Wire
    - Tape
    - Paper flooring material
    - Safety knife
    - HEPA Vacuum
    - Waste Container
    - Damp rags and/or mop
- Open the waste container and verify that the super sack inside the waste container has been pulled up in order to overlap the edges/sides of the waste container.
- Slowly remove the blanket filter from the press in strip at the top of the blanket filter and carefully fold/roll the blanket filter into a size that will easily fit into the waste container. Tie the blanket filter using wire and place the filter into the waste container.
- Using the HEPA vacuum, vacuum the area around each of the panel filters and the bottom sill of the panel filter wall. This will eliminate any dust that may contaminate the pocket filter during panel filter removal.
- Replace the panel filters by pulling the old filter from the panel wall and placing the filter in the waste container.
- Using the HEPA vacuum, vacuum the area around each of the pocket filters and the bottom sill of the panel filter wall. This will eliminate any dust that may contaminate the ULPA filter chamber during pocket filter removal.
- Remove the pocket filters from the panel wall by pulling the filters straight out from the panel wall.
- Using the HEPA vacuum, vacuum the area around each of the pocket filter openings and the bottom sill of the panel filter wall. This will eliminate any dust that may contaminate the ULPA filter chamber during pocket filter installation.
- DO NOT attempt to replace the HEPA filters. If the pressure gauges indicate that the HEPA filters need to be replaced, contact your supervisor.
- Install all filters (Pocket, Panel and Blanket) in the reverse order of removal.

- If the paper flooring material needs to be replaced then remove approximately half the flooring material, fold the material and place into the waste container. Move the waste container to the other side of the booth and remove the remaining flooring material, fold the material and place in the waste container.

- After the removal of all filters and flooring material and all filters and material have been placed in the waste container, carefully fold over the super sack in the waste container to cover all discarded filter media. Place the top on the waste container.

- Using the HEPA vacuum, vacuum the floor of the booth.

- Using a wet cloth, wipe down the waste container and all equipment used in the filter change out process.

- Remove the waste container from the booth and store in the chemical storage area in Building 4.

- Notify the waste treatment manager that a new waste container of filter media has been produced. The waste treatment manager shall identify and label the container and schedule for pick up.

- Install new paper floor covering if required.

- Once all filters have been changed and new floor covering is installed, close all doors, turn on the ventilation system and verify that the pressure drop is within the operating parameters that are indicated on or near the Magnehelic gauges.

Personal Hygiene

- Contamination – During the course of spraying operations, sanding or scuffing operations, maintenance procedures and/or housekeeping duties the employees PPE, face and hands may become contaminated with chrome containing dusts or residue.
- PPE Removal – All PPE, to include respirators, safety glasses/goggles and gloves shall be removed prior to exiting the paint department. This includes prior to eating, drinking, smoking, chewing tobacco or gum, applying cosmetics, or using the restroom.
- **NOTE** – The use of compressed air for purposes of removing chromium containing dust or residue from PPE is strictly prohibited.
- Washing of Hands and Face – All employees that have contact with chromium containing dusts or residue, potential or otherwise, shall thoroughly wash their hands and face at the end of their work shift and prior to departing HMF's properties or prior to eating, drinking, smoking, chewing tobacco or gum, applying cosmetics, or using the restroom. This procedure shall be carried out in the restrooms located within the PTE area of Building 4 where these activities occur. The restrooms used for this purpose shall be thoroughly cleaned by wet wiping all surfaces and mopping of the floor on a weekly basis.
- All reusable PPE (safety glasses/goggles, respirators) shall be cleaned at the end of every shift and shall be stored in closed plastic containers. These containers shall be stored in the storage cabinets within the PTE area.
- No employee shall remove chromium contaminated PPE, potentially contaminated or otherwise, clothing, or equipment from the workplace.
- The storage or consumption of food, drink, tobacco, gum, or cosmetics in any regulated work area is strictly prohibited.

Appendix C
CHEMICAL ADDITIONS - SPECIAL HANDLING PROCEDURES

Special handling procedures shall be used when making chemical additions and/or reconstituting new or emptied tanks that contain hexavalent chromium (Cr6) in their makeup. All necessary precautions shall be taken to eliminate all fugitive chrome containing dust emissions.

- Prior to removal of the containers from the chemical storage bunker, the container shall be inspected for any damage or leaks. If damage or leaks are found the container shall be bagged and sealed prior to removal from the chemical bunker.
- The container shall be inspected for any signs of buildup of chromium dust that may have deposited on the outside of the container. If chromium dust is found the container shall be wiped down with a damp cloth or rag prior to removal from the chemical storage bunker.
- All containers shall be transported to the chemical mixing area with the lid securely in place.
- Current Operations – Once transported, the container shall be placed in the chemical storage area next to the waste treatment area.
- Future Operations - Once the PTE's are in place, all mixing of chemicals containing dry chromic materials shall be mixed within a PTE.
- All doors shall be closed during any chemical make-up.
- A bucket or other suitable container that has a sealable lid shall be used during mixing of the chromic acid flake solution.
- The mixing container shall be filled with a suitable amount of DI water in order to properly allow for the chromic acid flake to dissolve into a solution.
- The container of chromic acid flakes shall then be opened and small amounts of the flakes shall be deposited into the mixing container using a measuring scoop. Take extreme caution when scooping, transferring and pouring the flakes into the mixing container in order to reduce any possible fugitive dust emissions.
- Flakes shall be added and mixed by hand until all chromic flakes have been dissolved into the water. Mechanical mixing may be used only after all signs of flakes have been dissolved into the solution and shall be mixed to the proper consistency and concentration. The solution must be a liquid form and easily pourable.
- Once thoroughly mixed, the mixing container shall be covered and sealed with a lid. The container shall be inspected for any spillage on the outside of the container. This includes any liquid or flakes that may have been deposited on the container during the adding or mixing process. If any spillage is found the container shall be wiped down with a clean damp cloth or rag.
- The mixing container can now be transported to the tank requiring the addition. Take caution during transport not to bump, drop or in any way dislodge the container lid and/or cause spillage.
- Once at the tank, the lid can be removed from the mixing container and the contents may be slowly poured into the tank. The pouring of the contents of the bucket/container into the tank shall take place as close to the surface of the tank solution as possible in order to minimize splashing. After pouring the contents into the tank solution the mixing container shall be resealed and the outside of container shall be inspected for any drips that have occurred during the pouring process. These shall be wiped down with a damp cloth or rag.
- After use, the mixing container shall be cleaned (triple rinsed) as per standard procedures. Once the container has been transported back to the waste treatment area the mixing container shall be triple rinsed. Remove the lid of the container and fill the container with water to approximately 20 percent of the volume of the container. Secure the lid onto the container then swirl, shake or roll the container

to rinse all interior surfaces. Remove the lid from the container and dispose of the rinse water that will be treated with the onsite treatment system. Perform the above procedure 2 more times prior to storing or disposing of the container.

- If required, the original chromic acid flake container shall be sealed with a lid, inspected for damage and/or leaks and wiped down with a damp cloth or rag. The container can now be transported back to the chemical storage bunker and placed in storage for future use.

Appendix D

TRAINING REQUIREMENTS

1. Employees
    a. All employees that come into contact with chromium containing chemicals, paints or coatings shall be trained in the provisions of the Dust Minimization Plan (DMP).
    b. This training shall be conducted when a new employee is hired or when an employee changes positions within the company that requires the training be provided.
    c. Annual refresher training shall be provided to all employees subject to the provisions of the DMP.
2. Visitors
    a. Visitors will be provided with training in the provisions of the DMP as needed and as seen appropriate by the production supervisors and/or the EHS Manager.
3. Contractors
    a. All contractors that may come into contact with chromium containing chemicals, paints or coatings shall be trained in the provisions of the Dust Minimization Plan (DMP).
    b. Contractors that are providing construction and/or demolition services in areas of the facility that contain chromium containing chemicals, paints or coatings shall be trained in the provisions of the DMP as related the services being provided.
4. The following subjects shall be included in the training. Some items may be added and/or removed depending upon the employee's position and/or duties within the respective departments. Comprehension of the material discussed will be tested via a multiple choice written test and/or employee demonstration of the procedures trained in.
    a. Introduction to the DMP and the reasons of its importance
    b. Housekeeping procedures and policies
        i. Compressed air use
        ii. Dusting/cleaning policies and procedures
        iii. HEPA Vacuum inspection and use
        iv. Mopping schedule and use
        v. Waste disposal procedures and polices
    c. Operations
        i. Drag out policies and procedures
        ii. Filter change procedures
        iii. Chemical additions policies and procedures
        iv. Spray booth operations
        v. Sanding/scuffing booth operations
    d. Personal Hygiene
        i. Washing requirements (when and where)
        ii. PPE use and storage requirements
5. Recordkeeping
    a. Records of all training as required by this DMP shall be maintained on site for a period of 3 years.

Appendix E

PRE-CLEANING/SHUT DOWN BUILDING CLEANING PROTOCOL

Prior to construction activity affecting an area, the following applicable measures shall be implemented to reduce the potential for fugitive emissions from accumulated dust from equipment and other disturbed areas.

BUILDING 2

1. All processing tanks shall be wiped down with wet rags/cloths (Wet wiped).
2. All exposed wall surfaces shall be wet wiped.
3. All surfaces (countertops, tops of equipment, etc.) shall be wet wiped.
4. All accessible piping systems shall be wet wiped.
5. All carts shall be HEPA vacuumed and/or wet wiped.
6. All flooring areas shall be HEPA vacuumed and/or wet mopped.
7. Construction areas will be assessed prior to the commencement of cleaning activities. Any activities as described above will be carried out as practical.

BETWEEN BUILDING 2 AND 3

1. Waste Treatment
    a. All tanks shall be wet wiped.
    b. All flat surfaces shall be wet wiped.
    c. All metering pumps shall be wiped down with a wet rag/cloth.
    d. The filter press and the surrounding area shall be HEPA vacuumed and/or wet wiped/mopped.
    e. If the filter cake transfer container is not full, then the interior/exterior of the container shall be wet wiped.
    f. The sides of the settler shall be wet wiped as practical.
    g. The waste treatment control panel and controller box shall be wet wiped.
    h. All chemical containers shall be wet wiped as practical.
    i. The flooring areas of the waste treatment area shall be wet mopped.
    j. Construction areas will be assessed prior to the commencement of cleaning activities. Any activities as described above will be carried out as practical.
2. Patio Area
    a. All processing tanks shall be wiped down with wet rags/cloths (Wet wiped).
    b. All exposed wall surfaces shall be wet wiped.
    c. All surfaces (countertops, tops of equipment, etc.) shall be wet wiped.
    d. All accessible piping systems shall be wet wiped.
    e. All carts shall be HEPA vacuumed and/or wet wiped.

f. All flooring areas shall be HEPA vacuumed and/or wet mopped.

g. Construction areas will be assessed prior to the commencement of cleaning activities. Any activities as described above will be carried out as practical.

3. Roll-Off Bin
    a. The top of the roll-off bin shall be HEPA vacuumed and/or wet mopped.

4. Concrete walkways
    a. All concrete walkways shall be HEPA vacuumed and/or wet mopped.

BUILDING 3

1. All processing tanks shall be wiped down with wet rags/cloths (Wet wiped)
2. All exposed wall surfaces shall be wet wiped
3. All surfaces (countertops, tops of equipment, etc.) shall be wet wiped
4. All accessible piping systems shall be wet wiped
5. All carts shall be HEPA vacuumed and/or wet wiped
6. All flooring areas shall be HEPA vacuumed and/or wet mopped
7. All chemical containers shall be wet wiped.
8. The sides and tops of the oven shall be HEPA vacuumed and/or wet wiped/mopped.
9. The sides and tops of the paint booth shall be HEPA vacuumed and/or wet wiped/mopped.
10. Construction areas will be assessed prior to the commencement of cleaning activities. Any activities as described above will be carried out as practical.

BETWEEN BUILDING 3 AND 4

1. The walls and flat surfaces of the interior of the chemical bunkers shall HEPA vacuumed and/or wet wiped/mopped.
2. All chemical containers shall be HEPA vacuumed and/or wet wiped as practical.
3. All paint containers shall be HEPA vacuumed and/or wet wiped as practical.
4. All concrete walkways shall be HEPA vacuumed and/or wet mopped.
5. All surfaces (countertops, tops of equipment, etc.) shall be wet wiped

Appendix F

APPLICATION SUBMITTED TO COMPLY WITH APPROVED RISK REDUCTION PLAN

Application No.	Equipment	Location
577223	Spray Booth No. 2	Building No. 4
577224	Spray Booth No. 1	Building No. 4
577225	Oven 6	Building No. 4
577226	Oven 7	Building No. 4
577227	Oven 12	Building No. 4
577228	HEPA System/Building 4 PTE	Building No. 4
577229	De-Masking Downdraft Table No. 1	Building No. 4
577230	Scuffing Booth	Building No. 4
577231	De-Masking Downdraft Table No. 2	Building No. 4
577555	Chromic Acid/Sulfuric Acid Anodizing Line	Building No. 2
557552	Chemfilm Line	Building No. 2
577551	Air Pollution Control System Consisting of: - Three State Mist Eliminator with ULPA -Permanent Total Enclosure for Building No. 2 -Permanent Total Enclosure for Waste Treatment Area	Building No. 2
577550	General Ventilation Air Pollution Control System Consisting of: - Acid Mist Scrubber - Permanent Total Enclosure for Building No. 2 - Permanent Total Enclosure for General Plating Area in Building No. 3 venting Acid Tanks in Precious Metal Plating Line	Building No. 2
577546	Nickel and Precious Metal Plating Line	Building No. 3
577545	Nickel Plating Line	Building No. 3
577547	Cadmium Plating Line	Building No. 3, Wastewater Treatment PTE
577544	Tin Plating Line	Building No. 3
577548	Etching Line	Building No. 3, Wastewater Treatment PTE
577543	Air Pollution Control System consisting of: - Three State Mist Eliminator with ULPA - Permanent Total Enclosure for General Plating Area in Building No. 3	Building No. 3
577542	Cyanide Scrubber	Building No. 3
577556	Wastewater Treatment System	Wastewater Treatment PTE, Patio Area
565743	Cadmium Vacuum Metalizing Chamber	Building No. 1

APPENDIX B

EMISSION CALCULATIONS

This page intentionally left blank.

Appendix B
Hixson Metal Finishing
Risk Reduction Project
Construction Emission Summary

Construction Equipment Emissions Table [1]	2015 Utility Trenching	2015 Scrubbers Delivery	2015 Installation of Equipment
VOC (lb/day)	0.52	0.38	0.15
CO (lb/day)	4.62	2.69	1.27
NOx (lb/day)	2.59	3.21	0.94
SOx (lb/day)	0.01	0.00	0.00
PM10 (lb/day)	0.23	0.23	0.07
PM2.5 (lb/day)[2]	0.23	0.23	0.06
CO_2 (MT/day)	0.13	0.11	0.05

Sum of Onsite and Offsite Trip Emissions Tables [3]	2015 Utility Trenching	2015 Scrubbers Delivery	2015 Installation of Equipment
VOC (lb/day)	0.19	0.11	0.10
CO (lb/day)	2.14	1.94	1.45
NOx (lb/day)	4.20	1.81	1.73
SOx (lb/day)	0.01	0.01	0.01
PM10 (lb/day)	0.81	0.41	0.36
Exhuast PM (lb/day)	0.16	0.10	0.09
Fugitive PM (lb/day)	0.64	0.30	0.27
PM2.5 (lb/day)[2]	0.27	0.16	0.13
Exhuast PM (lb/day)	0.16	0.10	0.09
Fugitive PM (lb/day)	0.11	0.05	0.05
CO_2 (MT/day)	0.57	0.36	0.30

Fugitive Earthmoving PM - Peak	2015 Utility Trenching	2015 Scrubbers Delivery	2015 Installation of Equipment
PM10 (lb/day)[4]	0.001	0.00	0.00
PM2.5 (lb/day)[2]	0.000	0.00	0.00

Total Emissions	Thresholds	2015 Utility Trenching	2015 Scrubbers Delivery	2015 Installation of Equipment
VOC (lb/day)	75	0.72	0.49	0.25
CO (lb/day)	550	6.76	4.63	2.72
NOx (lb/day)	100	6.79	5.02	2.67
SOx (lb/day)	150	0.02	0.01	0.01
PM10 (lb/day)	150	1.04	0.64	0.43
PM2.5 (lb/day)[2]	55	0.50	0.39	0.20
CO_2 (MT/day)	NA	0.70	0.47	0.35

(1) Emissions from "Equipment 2015" tab. Page B-5

(2) Methodology to Calculate PM 2.5 and PM 2.5 Significance Thresholds. SCAQMD, 2006.

(3) Sum of "Onsite Trip 2015" and "Offsite trips 2015" tabs. Page B-6 and B-7

(4) Emissions from "Peak Fugitive PM Construction Emissions". Page B-8.

Appendix B
Hixson Metal Finishing
Risk Reduction Project
Total GHG Emission Summary

GHG Construciton Emission Summary	Metric Tons	Reference Table	Page
Total Offroad Emissions	4	GHG Emissions from Construction Equipment	B-10
Total Onroad Emissions	11	GHG Emissions from Construction Trips	B-11
Total Emissions	**15**	NA	NA
30 Year Amortized GHG Emissions (MT/yr)	**0.5**	NA	NA
GHG Operational Emission Summary	**Metric Tons/yr**	**Reference Table**	**Page**
Oven 14	186	Emissions from Gas Oven	B-15
Caustic Delivery	6	GHG Emissions from Operational Trips	B-12
Electricity	387	GHG Emissions from Electricity	B-13
Subtotal Emissions	**579**	NA	NA
Total GHG Emissions (MT/yr)	**579**	**NA**	**NA**

Appendix B
Hixson Metal Finishing
Risk Reduction Project
Construction Fuel Use Summary

Construction Equipment	Peak Day Hours	Total Hours	Gallon/hr [1]	Peak Day Gallons	Total Gallons
Cranes	4	12	1.3	5.3	15.9
Forklifts	4	240	0.5	2.0	118.1
Aerial Lifts	4	240	0.8	3.3	196.7
Backhoe/Loader	8	32	1.6	12.8	51.1
Roller	8	8	0.8	6.2	6.2
Total Diesel Fuel Use				29.5	388

Vehicle	Peak Day Miles	Total Miles	Miles/Gallon [2]	Peak Day Gallons	Total Gallons
Light Vehicle(Gasoline)	294	17640	20.0	14.7	882.0
Medium Truck (Diesel)	41	800	6.0	6.8	133.3
Heavy Truck Miles (Diesel)	241	1760	4.9	49.3	359.9
Total Gasoline Fuel Use				14.7	882.0
Total Diesel Fuel Use				56.1	493.3

Total Fuel Use	Peak Day Gallons	Total Gallons
Total Gasoline Fuel Use	14.7	882.0
Total Diesel Fuel Use	85.6	881.2

(1) Offroad 2011.
(2) Emfac 2011.

Appendix B
Hixson Metal Finishing
Risk Reduction Project
Construction Equipment Emission Rates

Equipment Type	Hp	2015 Emission Factors lb/hr[1]						
		VOC	CO	NOx	SOx	PM10	PM2.5[2]	CO2e[3]
Cranes	120	0.05667	0.3559	0.56835	0.00056	0.04218	0.04176	0.01353
Forklifts	50	0.03219	0.1522	0.11147	0.00021	0.01208	0.01196	0.00503
Aerial Lifts	50	0.00643	0.1641	0.12322	0.00035	0.00426	0.00422	0.00839
Backhoe/Loader	50	0.03362	0.30201	0.16556	0.00034	0.01485	0.00818	0.00818
Roller	50	0.03196	0.2754	0.15835	0.00033	0.01420	0.01406	0.00791

(1) Off-Road 2011. CO emissions from SCAQMD Offroad Emission Factors, 2006.

(2) Methodology to Calculate PM 2.5 and PM 2.5 Significance Thresholds. SCAQMD, 2006.

(3) Carbon Dioxide Equivalents (CO_{EQ}) are based on default emission factors for diesel. Metric tons per hour.

Appendix B
Hixson Metal Finishing
Risk Reduction Project
Construction Equipment Emissions

		Activity		
		Pieces of Equipment		
Equipment	Hours (hr/day)	Utility Trenching	Scrubbers Delivery	Installation of Equipment
Cranes	4	0	1	0
Forklifts	4	0	1	1
Aerial Lifts	4	0	1	1
Backhoe/Loader	8	1	0	0
Roller	8	1	0	0

	Emission Rate (lb/hr)	Month (lb/day)		
VOC	2015	Utility Trenching	Scrubbers Delivery	Installation of Equipment
Cranes	0.057	0.00	0.23	0.00
Forklifts	0.032	0.00	0.13	0.13
Aerial Lifts	0.006	0.00	0.03	0.03
Backhoe/Loader	0.034	0.27	0.00	0.00
Roller	0.032	0.26	0.00	0.00
Total		0.52	0.38	0.15

	Emission Rate (lb/hr)	Month (lb/day)		
CO	2015	Utility Trenching	Scrubbers Delivery	Installation of Equipment
Cranes	0.356	0.00	1.42	0.00
Forklifts	0.152	0.00	0.61	0.61
Aerial Lifts	0.164	0.00	0.66	0.66
Backhoe/Loader	0.302	2.42	0.00	0.00
Roller	0.275	2.20	0.00	0.00
Total		4.62	2.69	1.27

	Emission Rate (lb/hr)	Month (lb/day)		
NOX	2015	Utility Trenching	Scrubbers Delivery	Installation of Equipment
Cranes	0.568	0.00	2.27	0.00
Forklifts	0.111	0.00	0.45	0.45
Aerial Lifts	0.123	0.00	0.49	0.49
Backhoe/Loader	0.166	1.32	0.00	0.00
Roller	0.158	1.27	0.00	0.00
Total		2.59	3.21	0.94

	Emission Rate (lb/hr)	Month (lb/day)		
SOx	2015	Utility Trenching	Scrubbers Delivery	Installation of Equipment
Cranes	0.001	0.00	0.00	0.00
Forklifts	0.000	0.00	0.00	0.00
Aerial Lifts	0.000	0.00	0.00	0.00
Backhoe/Loader	0.000	0.00	0.00	0.00
Roller	0.000	0.00	0.00	0.00
Total		0.01	0.00	0.00

	Emission Rate (lb/hr)	Month (lb/day)		
PM10	2015	Utility Trenching	Scrubbers Delivery	Installation of Equipment
Cranes	0.042	0.00	0.17	0.00
Forklifts	0.012	0.00	0.05	0.05
Aerial Lifts	0.004	0.00	0.02	0.02
Backhoe/Loader	0.015	0.12	0.00	0.00
Roller	0.014	0.11	0.00	0.00
Total		0.23	0.23	0.07

	Emission Rate (lb/hr)	Month (lb/day)		
PM2.5	2015	Utility Trenching	Scrubbers Delivery	Installation of Equipment
Cranes	0.042	0.00	0.17	0.00
Forklifts	0.012	0.00	0.05	0.05
Aerial Lifts	0.004	0.00	0.02	0.02
Backhoe/Loader	0.008	0.07	0.00	0.00
Roller	0.014	0.11	0.00	0.00
Total		0.18	0.23	0.06

	Emission Rate (MT/hr)	Month (MT/day)		
CO2e	2015	Utility Trenching	Scrubbers Delivery	Installation of Equipment
Cranes	0.014	0.00	0.05	0.00
Forklifts	0.005	0.00	0.02	0.02
Aerial Lifts	0.008	0.00	0.03	0.03
Backhoe/Loader	0.008	0.07	0.00	0.00
Roller	0.008	0.06	0.00	0.00
Total		0.13	0.11	0.05

Appendix B
Hixson Metal Finishing
Risk Reduction Project
Onsite Construction Trip Emissions

		Month (trips per day)		
Vehicle	**Miles per Day**	**Utility Trenching**	**Scrubbers Delivery**	**Installation of Equipment**
Water Truck	0.1	1	0	0
Misc. MD Truck	0.5	1	1	1
Total Medium Truck Miles		0.6	0.5	0.5
Misc. HD Truck	0.5	2	2	2
Total Heavy Truck Miles		1	1	1

	Emission Rate (lb/mi)[1]	**Month (lb/day)**		
VOC	**2015**	**Utility Trenching**	**Scrubbers Delivery**	**Installation of Equipment**
Medium Duty	0.0003717	0.00	0.00	0.00
Heavy Duty	0.0006131	0.00	0.00	0.00
Total		0.00	0.00	0.00

CO	**2015**	**Utility Trenching**	**Scrubbers Delivery**	**Installation of Equipment**
Medium Duty	0.0030301	0.00	0.00	0.00
Heavy Duty	0.0043046	0.00	0.00	0.00
Total		0.01	0.01	0.01

NOx	**2015**	**Utility Trenching**	**Scrubbers Delivery**	**Installation of Equipment**
Medium Duty	0.0082326	0.00	0.00	0.00
Heavy Duty	0.0154328	0.02	0.02	0.02
Total		0.02	0.02	0.02

SOx	**2015**	**Utility Trenching**	**Scrubbers Delivery**	**Installation of Equipment**
Medium Duty	0.0000217	0.00001	0.00001	0.00001
Heavy Duty	0.0000359	0.00004	0.00004	0.00004
Total		0.00005	0.00005	0.00005

PM10	**2015**	**Utility Trenching**	**Scrubbers Delivery**	**Installation of Equipment**
Medium Duty Exhaust	0.0004787	0.000	0.000	0.000
Heavy Duty Exhaust	0.0004727	0.000	0.000	0.000
Total Exhaust PM		0.001	0.001	0.001
Medium Duty Fugitve[2]	0.000515	0.000	0.000	0.000
Heavy Duty Fugitive[2]	0.002314	0.002	0.002	0.002
Total Fugitive PM		0.003	0.003	0.003
Total		0.003	0.003	0.003

PM2.5[3]	**2015**	**Utility Trenching**	**Scrubbers Delivery**	**Installation of Equipment**
Medium Duty Exhaust	0.0004740	0.000	0.000	0.000
Heavy Duty Exhaust	0.0004680	0.000	0.000	0.000
Total Exhaust PM		0.001	0.001	0.001
Medium Duty Fugitve[2]	0.000088	0.000	0.000	0.000
Heavy Duty Fugitive[2]	0.000393	0.000	0.000	0.000
Total Fugitive PM		0.000	0.000	0.000
Total		0.001	0.001	0.001

CO2e[4]	**2015**	**Utility Trenching**	**Scrubbers Delivery**	**Installation of Equipment**
Medium Duty	2.261	1.36	1.13	1.13
Heavy Duty	3.768	3.77	3.77	3.77
Total		5.12	4.90	4.90

(1) Emfac2011 emission factors for the South Coast Air District.

(2) Emission Calculations for travel on paved roads from EPA AP-42 Section 13.2.1, January 2011

$E = k(sL)^{0.91} \times (W)^{1.02}$

Where: k = 0.0022 lb/VMT for PM10, sL = road silt loading (gms/m2)

(0.03 for major/collector roads), W = weight of vehicles (2.5 tons for light; 5.5 for medium trucks,

and 24 for heavy trucks)

(3) Methodology to Calculate PM 2.5 and PM 2.5 Significance Thresholds. SCAQMD, 2006.

(4) Carbon Dioxide Equivalence (CO_2) = $CO_2 + CH_4 * 21 + N2O*310$

where CO2 emissions factors are from Emfac2011. CH4 and N2O emissions factors are from Direct

Emissions from Mobile Combustion Sources, EPA 2008.

where light vehicle are gasoline light duty trucks.

where medium/heavy duty vehicle are diesel heavy duty trucks.

	2015		
Chemical	**Light**	**Medium**	**Heavy**
CO2 (lb/mi)	0.8956	2.2575	3.7642
CH4 (g/mi)	0.0148	0.0051	0.0051
N2O (g/mi)	0.0157	0.0048	0.0048
CO2e (lb/mi)	0.907	2.261	3.768

(5) No truck queing anticipated during project construction, therefore, no idling emissions are expected.

Appendix B
Hixson Metal Finishing
Risk Reduction Project
Offsite Construction Trip Emissions

		Month (trips per day)		
Vehicle	**Miles per Day**	**Utility Trenching**	**Scrubbers Delivery**	**Installation of Equipment**
Tradesmen	29.4	10	15	10
Total Light Vehicle Miles		294	441	294
Misc. MD Truck	40	1	1	1
Total Medium Truck Miles		40	40	40
Misc. HD Truck	40	0	2	2
Haul Trucks (In)	40	1		
Haul Trucks (out)	200	1		
Total Heavy Truck Miles		240	80	80

	Emission Rate (lb/mi)[1]	**Month (lb/day)**		
VOC	**2015**	**Utility Trenching**	**Scrubbers Delivery**	**Installation of Equipment**
Light Duty	0.0001035	0.03	0.05	0.03
Medium Duty	0.0003717	0.01	0.01	0.01
Heavy Duty	0.0006131	0.15	0.05	0.05
Total		0.19	0.11	0.09

CO	**2015**	**Utility Trenching**	**Scrubbers Delivery**	**Installation of Equipment**
Light Duty	0.0033327	0.98	1.47	0.98
Medium Duty	0.0030301	0.12	0.12	0.12
Heavy Duty	0.0043046	1.03	0.34	0.34
Total		2.13	1.94	1.45

NOx	**2015**	**Utility Trenching**	**Scrubbers Delivery**	**Installation of Equipment**
Light Duty	0.0005080	0.15	0.22	0.15
Medium Duty	0.0082326	0.33	0.33	0.33
Heavy Duty	0.0154328	3.70	1.23	1.23
Total		4.18	1.79	1.71

SOx	**2015**	**Utility Trenching**	**Scrubbers Delivery**	**Installation of Equipment**
Light Duty	0.0000090	0.00	0.00	0.00
Medium Duty	0.0000217	0.00	0.00	0.00
Heavy Duty	0.0000359	0.01	0.00	0.00
Total		0.01	0.01	0.01

PM10	**2015**	**Utility Trenching**	**Scrubbers Delivery**	**Installation of Equipment**
Light Duty Exhaust	0.0001064	0.03	0.05	0.03
Medium Duty Exhaust	0.0004787	0.02	0.02	0.02
Heavy Duty Exhaust	0.0004727	0.11	0.04	0.04
Total Exhaust PM		0.16	0.10	0.09
Light Duty Fugitive[2]	0.000221	0.06	0.10	0.06
Medium Duty Fugitve[2]	0.000467	0.02	0.02	0.02
Heavy Duty Fugitive[2]	0.002314	0.56	0.19	0.19
Total Fugitive PM		0.64	0.30	0.27
Total		0.80	0.41	0.36

PM2.5[3]	**2015**	**Utility Trenching**	**Scrubbers Delivery**	**Installation of Equipment**
Light Duty Exhaust	0.0001053	0.03	0.05	0.03
Medium Duty Exhaust	0.0004740	0.02	0.02	0.02
Heavy Duty Exhaust	0.0004680	0.11	0.04	0.04
Total Exhaust PM		0.16	0.10	0.09
Light Duty Fugitive[2]	0.000038	0.01	0.02	0.01
Medium Duty Fugitve[2]	0.000079	0.00	0.00	0.00
Heavy Duty Fugitive[2]	0.000393	0.09	0.03	0.03
Total Fugitive PM		0.11	0.05	0.05
Total		0.27	0.15	0.13

CO_2e[4]	**2015**	**Utility Trenching**	**Scrubbers Delivery**	**Installation of Equipment**
Light Duty	0.907	266.67	400.00	266.67
Medium Duty	2.261	90.44	90.44	90.44
Heavy Duty	3.768	904.26	301.42	301.42
Total		1261.37	791.86	658.53

(1) Emfac2011 emission factors for the South Coast Air District.

(2) Emission Calculations for travel on paved roads from EPA AP-42 Section 13.2.1, January 2011

$E = k(sL)^{0.91} \times (W)^{1.02}$

Where: k = 0.0022 lb/VMT for PM10, sL = road silt loading (gms/m2)

(0.03 for major/collector roads), W = weight of vehicles (2.5 tons for light; 5.5 for medium trucks, and 24 for heavy trucks)

(3) Methodology to Calculate PM 2.5 and PM 2.5 Significance Thresholds. SCAQMD, 2006.

(4) Carbon Dioxide Equivalence (CO_2) = $CO_2 + CH_4 * 21 + N2O*310$

where CO2 emissions factors are from Emfac2011. CH4 and N2O emissions factors are from Direct Emissions from Mobile Combustion Sources, EPA 2008.

where medium/heavy duty vehicle are diesel heavy duty trucks.

	2015		
Chemical	**Light**	**Medium**	**Heavy**
CO2 (lb/mi)	0.8956	2.2575	3.7642
CH4 (g/mi)	0.0148	0.0051	0.0051
N2O (g/mi)	0.0157	0.0048	0.0048
CO2e (lb/mi)	0.907	2.261	3.768

(5) No truck queing anticipated during project construction, therefore, no idling emissions are expected.

Appendix B
Hixson Metal Finishing
Risk Reduction Project
Peak Fugitive PM Construction Emissions

Filling and Dumping	Estimated Materials Handled Per Day (tons)	Peak Tons of Materials Handled Per Day	PM10 Emission Factor (lb/ton)	Water Control Factor[2]	Controlled Emissions: Average PM10 Emissions Pounds/day	Controlled Emissions: Peak PM10 Emissions Pounds/day	Uncontrolled Emissions: Average PM10 Emissions Pounds/day	Uncontrolled Emissions: Peak PM10 Emissions Pounds/day	SCAQMD Emission Factor Source
Truck Filling[1]	20.0	20.0	5.15E-05	0.39	0.00040196	0.00040196	0.00103067	0.00103067	Table A9-9
Truck Dumping	20.0	20.0	5.15E-05	0.39	0.00040196	0.00040196	0.00103067	0.00103067	Table A9-9

TOTAL PM10 Pounds/day	Average	Peak
(Controlled Emissions)	0.0008	0.00080
(Uncontrolled Emissions)	0.002	0.002

(1) Emissions (lbs/ton) = $0.00112 \times [(G/5)^{1.3}/(H/2)^{1.4}] \times I/J$
where G=mean wind speed (4.1 mph), H=moisture content of surface material (15%); I=lbs of dirt handled per day; and J=2,000 lbs/ton. Wind speed data acquired from Long Beach 2005-2007SCAQMD meteorological file. AP-42 13.2.4.

(2) Mitigated Emissions assume that watering 3 times per day controls emissions by 61 percent (Uncontrolled Emissions x 0.39).

Appendix B
Hixson Metal Finishing
Risk Reduction Project
LST Analysis

Criteria Pollutant	CO	NOx	PM10	PM2.5[2]
Peak Construction Emissions	4.63	2.61	0.24	0.23
LST Value[1]	647	92	4	3
Significant?	No	No	No	No

(1) Appendix C of the SCAQMD Final LST Methodology (Oct. 2009).

Sra #18 with the nearest receptor at 25 meters.

(2) Methodology to Calculate PM 2.5 and PM 2.5 Significance Thresholds. SCAQMD, 2006.

Appendix B
Hixson Metal Finishing
Risk Reduction Project
GHG Emission From Construction Equipment

Construction Equipment	Total Hours	CO2e (MT/hr)	CO2e (MT/yr)
Crane	12	0.0135	0.2
Forklift	240	0.0050	1.2
Aerial Lift	240	0.0084	2.0
Backhoe/Loader	32	0.0082	0.3
Roller	8	0.0079	0.1
Total Emissions			4

Note: Based on 4 days of cranes and 60 days of construction. Offroad2011 factors.

Appendix B
Hixson Metal Finishing
Risk Reduction Project
GHG Emissions from Construction Trips

Assumptions

Vehicle	Miles per Trip	Total Trips
Cars	29.4	600
Total Light Vehicle Miles		17640
Misc. MD Truck	40	20
Total Medium Truck Miles		800
Misc. HD Truck	40	20
Haul Trucks (In & Out)	240	4
Total Heavy Truck Miles		1760

Total Emissions

CO_{2EQ}	lb/mile[(1)(2)]	Metric Tons
Light Duty	0.907	7
Medium Duty	2.261	1
Heavy Duty	3.768	3
Total		11

(1) Emfac2011 emission factors for the South Coast Air District.

(2) Carbon Dioxide Equivalence (CO_E) = CO_2 + CH_4 * 21 + N2O*310

where CO2 emissions factors are from Emfac2011. CH4 and N2O emissions factors are from Direct Emissions from Mobile Combustion Sources, EPA 2008..

where light vehicle are gasoline light duty trucks.

where medium/heavy duty vehicle are diesel heavy duty trucks.

	2015		
Chemical	**Light**	**Medium**	**Heavy**
CO2 (lb/mi)	0.8956	2.2575	3.7642
CH4 (g/mi)	0.0148	0.0051	0.0051
N2O (g/mi)	0.0157	0.0048	0.0048
CO2e (lb/mi)	0.907	2.261	3.768

Appendix B
Hixson Metal Finishing
Risk Reduction Project
GHG Emissions from Caustic Deliveries

Assuptions

Vehicle	Miles per Trip	Total Trips/ Year
Caustic Delivery Trucks	40	83
Total Heavy Truck Miles		3313

Total Emissions

CO_{2EQ}	lb/mile[(1)(2)]	Metric Tons / Year
Heavy Duty	3.768	6
Total		6

(1) Emfac2011 emission factors for the South Coast Air District.

(2) Carbon Dioxide Equivalence (CO_E) = CO_2 + CH_4 * 21 + N2O*310

where CO2 emissions factors are from Emfac2011. CH4 and N2O emissions factors are from Direct Emissions from Mobile Combustion Sources, EPA 2008..

where light vehicle are gasoline light duty trucks.

where medium/heavy duty vehicle are diesel heavy duty trucks.

	2015		
Chemical	Light	Medium	Heavy
CO2 (lb/mi)	0.8956	2.2575	3.7642
CH4 (g/mi)	0.0148	0.0051	0.0051
N2O (g/mi)	0.0157	0.0048	0.0048
CO2e (lb/mi)	0.907	2.261	3.768

Appendix B
Hixson Metal Finishing
Risk Reduction Project
GHG Emission From Electricity

Assumptions

Total Power of Equipment	164	hp
Total Power of Equipment	123	kw
Efficeincy of Motors	80	%
Total Electricity Required	154	kw
Annual Operating Hours	8760	hr
Annual Electrical Use	1347	MWhr

GHG Emissions	CO2	CH4	N2O	CO2e
Emission Factor (lb/MWhr)	631.0	0.029	0.00617	633.5
Annual Emissions (lbs)	849862.4	39.05865	8.310065	853258.7
Annual Emissions (MT)	385.5	0.017717	0.003769	387.0

Note: Emission factors from CalEEMod.

Appendix B
Hixson Metal Finishing
Risk Reduction Project
Caustic and Water Demand

Assumptions

Equipment	Makeup Rate of Solution			Caustic Required			Water Required		
	gpm	gpd	gpy	gpm	gpd	gpy	gpm	gpd	gpy
Acid Scubber	1.2	1,728	630,720	0.1	138	50,458	1.1	1,590	580,262
Cyanide Mist Eliminator	1.4	2,016	735,840	0.1	161	58,867	1.3	1,855	676,973
Total	2.6	3,744	1,366,560	0.2	300	109,325	2.4	3,444	1,257,235

Note: Assumes 8 gallons of 50% caustic diliuted with 92 gallons of water to make 5% solution. DOW Caustic Solution Handbook (DOW, 2010).

Caustic Deliveries

Drums per Truck	24	
Drum Capacity	55	gals
Truck Capacity	1,320	gals
Annual Deliveries	83	trucks/yr
Days between Deliveries	4	days

Appendix B
Hixson Metal Finishing
Risk Reduction Project
Emissions from Gas Oven

Assumptions

Oven Duty	400000	btu/hr
Oven Duty	0.4	mmbtu/hr
Heat Content	1020	btu/scf
Fuel Use	0.000392157	mmscf/hr

Criteria Emissions	VOC	CO	NOx	SOx	PM10	PM2.5
EF (lb/mmscf)	7	35	130	0.6	7.5	7.5
Hourly Emissions (lb/hr)	0.00	0.01	0.05	0.00	0.00	0.00
Daily Emissions (lb/day)	0.07	0.33	1.22	0.01	0.07	0.07
Annual Emissions (lb/yr)	577.13	2885.65	10718.12	49.47	618.35	618.35

Note: Emission factors based on default Annual Emissions Reporting.

GHG Emissions	CO2	CH4	N2O	CO2e
EF (kg/mmbtu)	53.06	0.001	0.0001	53.112
Annual Emissions (MT/yr)	185.92	0.004	0.0004	186.10

Note: Emission factors based on 40 CFR 98 Table C.

APPENDIX C

HEALTH RISK ASSESSMENT

This page intentionally left blank.

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 - www.aqmd.gov

Via Certified Mail and Return Receipt

July 24, 2015

Mr. Douglas Greene
President
Hixson Metal Finishing
829 Production Place
Newport Beach, CA 92663

Subject: Conditional Approval of Rule 1402 Risk Reduction Plan for **Hixson Metal Finishing, Newport Beach** (SCAQMD I.D. No: **11818)**

Dear Mr. Greene:

This letter is in response to Hixson Metal Finishing's (Hixson) Final Risk Reduction Plan (RRP), dated July 1, 2015, and the revised schedule of implementation of the Risk Reduction Measures (RRM) submitted on July 20, 2015, for the facility located at 829 Production Lane, Newport Beach, California (Facility ID# 11818).

BACKGROUND:

On April 3, 2014, SCAQMD staff required Hixson to prepare and submit a RRP within 180 days, due to Hixson's elevated levels of hexavalent chromium [Cr(VI)] that was identified at monitors located on Hixson's property and at two adjacent properties (an apartment to the south and an industrial property to the north). Hixson submitted its first RRP to the SCAQMD on March 2, 2015. On May 8, 2015, the SCAQMD staff rejected Hixson's first RRP and required submittal of a revision by June 8, 2015. Hixson subsequently submitted a second RRP on June 5, 2015. On June 26, 2015, SCAQMD staff rejected Hixson's second RRP due to its failure to demonstrate that the proposed controls will reduce risks below Rule 1402 thresholds. Hixson's third and final Risk Reduction Plan was submitted July 1, 2015. After review of this third RRP, SCAQMD staff requested Hixson to revise the implementation schedule so that the risk reduction measures would be implemented as quickly as feasible. Hixson submitted a revised schedule on July 20, 2015.

Also please note that SCAQMD staff reviewed the proposed emission controls and modeling analysis in the July 1, 2015 RRP. This RRP projects a potential maximum residential cancer risk of 0.8 per million once the RRP is completely implemented. The Health Risk Assessment (HRA) included with the RRP did not include emissions from the onsite soil vapor extraction system. Adding in these emissions would increase the risk by approximately 0.3 per million at the maximally exposed receptor.

Hixson's RRP proposes multiple types of control devices for sources of hexavalent chromium emissions in Buildings 2 and 3. These control devices include a dry scrubber and HEPA/ULPA filters designed to directly pull emissions from hoods above anodizing and plating lines, and wet scrubbers with mesh pads for any fugitive emissions coming from Buildings 2 and 3. Because of significant concerns with potential fugitive emissions, SCAQMD staff conducted a sensitivity analysis to determine what the residual risk would be if up to 5% of the emissions from the plating and anodizing lines were released as fugitive emissions and not controlled through the dry scrubbers and HEPA/ULPA filters, and instead were controlled only through the wet scrubber with a mesh pad. The wet scrubber and mesh pad were conservatively assumed to have only 45% control efficiency. This conservative scenario resulted in a potential maximum residential risk of approximately 15 to 20 per million, still below the Rule 1402 threshold of 25 per million.

FINAL RISK REDUCTION PLAN CONDITIONAL APPROVAL

After careful the review of Hixson's Final RRP by SCAQMD staff, the SCAQMD hereby grants conditional approval of this plan, contingent upon the following:

1. **Hixson shall submit complete applications for construction of RRM to SCAQMD as soon as possible, but no later than August 17, 2015. Please note that although the information in the Risk Reduction Plan is conceptually complete, it does not include detailed engineering data and calculations. Hixson must submit the detailed information to be submitted by Hixson, along with required applications for construction of new equipment and modification of existing equipment, in order for SCAQMD to expedite its review process. Hixson must use good engineering principles and practices for the design of ventilation systems and air pollution control equipment.**

2. **Hixson shall submit complete applications for construction of RRM to the City of Newport Beach as soon as possible, but no later than August 17, 2015.**

3. **Hixson shall submit complete information to SCAQMD for the preparation of any CEQA documents, if required, by August 17, 2015.**

4. **Hixson shall request expedited permit processing from SCAQMD and Accelerated Plan Review from the City of Newport Beach and shall pay all necessary fees to SCAQMD and the City of Newport Beach for expedited/Accelerated Plan Review.**

5. **Hixson shall complete construction of all RRM as soon as possible, but in no event later than March 31, 2016, unless an extension is granted in writing by the SCAQMD.**

If you have any questions regarding this RRP conditional approval, please contact me at (909) 396-2662.

Sincerely,

Mohsen Nazemi, P.E.
Deputy Executive Officer
Engineering & Compliance

MN:AD

Attachment

cc: Barry Wallerstein, SCAQMD
Kurt Wiese, SCAQMD
Philip Fine, SCAQMD
Kim Brandt, City of Newport Beach

Revised Risk Reduction Plan
Rule 1402

Prepared for:
Hixson Metal Finishing
Newport Beach, California

Prepared by:
Ramboll Environ US Corporation

Initial Submittal Date:
March 2, 2015

Revised Submittal Date:
June 5, 2015

Revised Submittal Date:
July 1, 2015

Joseph Hower, PE, DEE
Principal

RAMBOLL ENVIRON

Certification [(f)(3)(I)]

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 Hixson Metal Finishing facility in Newport Beach, California.

Douglas C. Greene
President

6-30-15
Date

Contents

Appendix A

Projected Health Risks after Implementing all Measures Currently Proposed

List of Appendix A Tables

List of Appendix A Figures

Appendix A
Projected Health Risks After Implementing All Measures Currently Proposed

Ramboll Environ conducted this updated health risk assessment (HRA) to project future health risks after the Facility implements the risk reduction measures currently being evaluated and discussed in Section 5 of the revised Risk Reduction Plan (RRP). Ramboll Environ performed revised air modeling and used updated risk assessment methodologies as described below. Emissions data used in the updated HRA has been updated to account for the risk reduction measures discussed above.

A.1 Projected TAC Emissions

To evaluate the current conditions at the Facility, a modeling-monitoring reconciliation was performed over the baseline period of May 2014 through April 2015. The resulting estimates of potential fugitive Hexavalent chromium [Cr(VI)] emissions serve as the baseline of this RRP. Details of this reconciliation process are included in Appendix B.

Tables summarizing annual and maximum hourly toxic air contaminant (TAC) emissions by source for the Baseline HRA are presented in Tables A-a and A-b. Modeled emissions here represent those presented in the Supplemental HRA submitted on November 14, 2015, with the exception of the potential fugitive Cr(VI) emissions, which are detailed in Appendix B of this report.

Section 5 of the RRP discussed the risk reduction measures currently being evaluated, along with estimated emissions reductions and specifications of relevant control equipment (e.g. Ultra-low efficiency particulate air (ULPA) filters of control efficiency 99.999%). Tables A-1 and A-2 summarize the annual and maximum hourly TAC emissions by source, respectively, after accounting for all estimated emissions reductions relative to the baseline period of May 2014 through April 2015. Emissions reduction due to Facility changes made before May, 2014 were not accounted for in this RRP as they are already taken into account in the estimated baseline emissions. Supporting calculations for the reallocation and reduction of emissions are provided in Appendix C.

A.2 Modeling and Risk Assessment Methods

This HRA updated both the modeling and risk calculations, as compared to the HRA submitted on November 14, 2014. Emission sources modeled included all existing, relocated, and new point sources (16 total) and the only remaining fugitive emission source (located between Building 2 and 3).[3] The updated emissions data is presented in Tables A-1 and A-2. Point source modeling parameters are listed in Table A-3 and area source modeling parameters (for the corresponding potential fugitive sources) are listed in Table A-4. The locations of potential future onsite sources and nearby buildings are included as Figure A-1. Routine sources were modeled according to their operating schedule, while potential fugitive Cr(VI) sources were

[3] All prior potential fugitive emissions sources are still included in the model, but are not assigned any associated emissions.

modeled assuming continuous operation. The operating schedule for each source is shown in Table A-5.[4]

In addition to the sources included in the post-implementation model, Hixson operates a soil vapor extraction (SVE) unit that uses a carbon adsorption unit to control potential gaseous emissions. The AQMD completed a very conservative, screening level HRA for this unit when permitted, which shows that potential risks and hazards are minimal, with a maximum residential cancer risk of 0.4 in one million, a maximum worker risk of 0.06 in one million, and acute and chronic hazard indices far below thresholds. For completeness, this HRA has been included as Attachment 3.

Ramboll Environ performed revised modeling to account for the modified Facility boundary and new and/or relocated point sources. The regulatory default options were used to generate the X/Q ("chi over q") values using the most recent version of American Meteorological Society/Environmental Protection Agency regulatory air dispersion model (AERMOD) (version 14134). The source parameters were provided by the Facility or were derived from source test reports.

The receptor grid covers a 1 kilometer radius surrounding the facility, and census block receptors were extracted from Hotspots Analysis and Reporting Program (HARP), version 2. As discussed in some of the risk reduction measures currently proposed, the Facility is proposing to move some operations to a new building at 861 Production Place (Building 5). Additionally, beginning in 2011, the Facility moved some operations from Building 1 (front office, training room, non-destructive testing) into a building across the way at 816 Production Place (Building 6). Operations in both Building 5 and Building 6 do not conduct TAC-emitting operations and have therefore not been included in the models. However, for purposes of evaluating offsite receptors, receptors previously evaluated in Buildings 5 and 6 have been removed and are no longer evaluated for offsite worker risks or for acute HI impacts. Figure A-1 shows the Facility layout as proposed through the risk reduction measures discussed in this RRP.

As discussed in the HRA submitted on November 14, 2014, John Wayne Airport meteorological station ([Weather Bureau Army Navy] WBAN #93184, KSNA) was selected (and approved by SCAQMD staff) as the most representative surface station for the Facility. Five years of meteorological data, 2009-2013, were processed for use in AERMOD using surface meteorological data from John Wayne Airport and upper-air meteorological data from San Diego Miramar (WBAN # 03190, KNKX). Terrain data were obtained from the United States Geological Survey (USGS), with 1/3 arcsec (~10 meter) National Elevation Dataset (NED) data downloaded, from which elevations and hill heights for the sources, buildings, and receptors were extracted.

Ramboll Environ used HARP2 (version 15076) to calculate the health risks, consistent with the Draft Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act ("Draft SCAQMD Supplemental Guidelines") South Coast Air Quality Management District (SCAQMD 2015a). As this is an updated model compared with what was used for the HRA submitted on November 14, 2014, corresponding risk results should not be compared between the two models.

[4] Note that while some scrubber and control units may operate 24 hours a day, 7 days a week, the modeling was conducted to follow the schedule of primary emissions generation.

As the majority of post-implementation emissions are routed through point sources with discrete operating schedules, instead of through continuous fugitive emission sources, the HARP2 model for worker risks has been run to incorporate a model adjustment factor (MAF), per Table 12 of the Draft SCAQMD Supplemental Guidelines stacks. As the various point sources at Hixson follow different operating schedules, a conservative MAF of 4.2 was used, which covers the shortest potential period of operation of 8 hours/day, 5 days/week.[5]

As incorporated in the HARP2 model, Ramboll Environ used risk calculation parameters consistent with the updated (February, 2015) Office of Environmental Health Hazard Assessment (OEHHA) Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessment ("OEHHA Guidance") and the Draft SCAQMD Supplemental Guidelines.

A.3 Risk Estimates

When the risk reduction measures discussed in Section 5 of the RRP are considered, the modeled cancer risk at the Maximally Exposed Individual Resident (MEIR) is estimated to be 0.8 in a million (vs. 211 in a million in the Baseline HRA). The modeled MEIR is at Receptor 760[6] (413425, 3721575) and is located at a residential unit south of the Facility. The modeled cancer risk at the Maximally Exposed Individual Worker (MEIW) is estimated to be 0.4 in a million (vs. 13.1 in a million in the Baseline HRA). The modeled MEIW is at Receptor 936[7] (413550, 3721675) and is located north of the Facility on Production Place, at a complex of industrial buildings. Both maximum cancer risks are below the SCAQMD Rule 1402 Action Risk Level of 25 in a million and the public notification threshold of 10.0.

The cancer burden is estimated to be 0, as the modeled cancer risk at the MEIR is below one in a million. The cancer burden in the Baseline HRA was 0.11.

The maximum modeled chronic Hazard Index (HI) for the residential scenario is estimated to be 0.0002 (vs. 0.05 in the Baseline HRA). It is located at Receptor 760[8] (413425, 3721575), a residential unit south of the Facility. The maximum modeled chronic HI for the worker scenario is estimated to be 0.006 (vs. 0.07 in the Baseline HRA). The maximum modeled chronic HI MEIW is at Receptor 936[9] (413550, 3721675), which is north of the Facility on Production Place, at a complex of industrial buildings. Both maximum chronic HIs are well below the SCAQMD Rule 1402 Action Risk Level of 3.0 and the public notification threshold of 1.0.

The maximum acute HI [i.e. Point of Maximum Impact (PMI)] is estimated to be 0.04 (vs. 0.25 in the Baseline HRA). It is at Receptor 25 (413359.2, 3721639.5) and is located on the northern boundary of the Facility. The maximum acute HI is well below the SCAQMD Rule 1402 Action Risk Level of 3.0 and the public notification threshold of 1.0.

The maximum locations for the residential cancer risk, chronic HI, and acute HI are presented on Figure A-2. The maximum locations for the worker cancer risk, chronic HI, and acute HI are shown in Figure A-3.

[5] The shortest operating period included in the model is 16 hours/day, 5 days/week; therefore the application of a 4.2 MAF this is a very conservative approach.
[6] The cancer risk MEIR was previously numbered as Receptor 750 in the 2013 HRA.
[7] The cancer risk MEIW was previously numbered as Receptor 929 in the 2013 HRA.
[8] The chronic HI MEIR was previously numbered as Receptor 750 in the 2013 HRA.
[9] The chronic HI MEIW was previously numbered as Receptor 929 in the 2013 HRA.

All electronic files, including modeling and emissions files, are included in the CD-ROM in Appendices C and D of the RRP.

Appendix A Tables

Table A-a
Baseline HRA, Modeled Annual Emissions by Source and Substance, in Pounds per Year
Hixson Metal Finishing
Newport Beach, CA

			Compound and CAS Number																			
			Acetaldehyde	Acrolein	Ammonia	Benzene	Cadmium	Crystalline Silica[1]	Ethyl Benzene	Formaldehyde	Glycol Ethers and Acetates[2]	Hexane	Hexavalent Chromium[3]	Lead	Methanol	Methyl Ethyl Ketone	Methyl Isobutyl Ketone	Nickel	PAHs	Naphthalene	Phosphoric Acid	Toluene	Xylenes
Source Number	**Source**	**Source Description**	**75-07-0**	**107-02-8**	**7664-41-7**	**71-43-2**	**7440-43-9**	**7631-86-9**	**100-41-4**	**50-00-0**	**1115**	**110-54-3**	**18540-29-9**	**7439-92-1**	**67-56-1**	**78-93-3**	**108-10-1**	**7440-02-0**	**1151**	**91-20-3**	**7664-38-2**	**108-88-3**	**1330-20-7**
1	FS1	Building 4	-	-	-	-	-	-	-	-	-	-	8.97E-03	-	-	-	-	-	-	-	-	-	-
2	FS2	Building 3	-	-	-	-	-	-	-	-	-	-	1.15E-02	-	-	-	-	-	-	-	-	-	-
3	FS3	Building 2	-	-	-	-	-	-	-	-	-	-	4.17E-02	-	-	-	-	-	-	-	-	-	-
5	FS5	Between Building 3&4	-	-	-	-	-	-	-	-	-	-	4.11E-02	-	-	-	-	-	-	-	-	-	-
6	FS6	Between Building 2&3	-	-	-	-	-	-	-	-	-	-	1.37E-02	-	-	-	-	-	-	-	-	-	-
8	FS8	Building 3 Plating	-	-	-	-	2.52E-01	-	-	-	-	-	-	-	-	-	-	8.20E-03	-	-	-	-	-
9	PS1	SB #1	-	-	4.14E-01	-	-	4.45E-06	4.53E+00	4.48E-02	4.20E+01	-	3.27E-04	1.84E-07	2.50E-01	1.36E+02	6.72E+01	1.69E-07	-	-	1.68E-02	1.79E+01	2.55E+01
10	PS2	SB #2	-	-	3.22E-02	-	-	-	4.65E+00	6.60E-04	1.12E+01	-	3.03E-04	7.51E-07	1.29E+01	1.74E+02	4.36E+01	2.62E-09	-	-	8.56E-01	4.40E+01	2.15E+01
11	PS3	Scrubber (Anodize Line, Tank 70)	-	-	-	-	-	-	-	-	-	-	4.00E-04	-	-	-	-	-	-	-	-	-	-
12	PS4	Oven #3	4.30E-03	2.70E-03	1.80E+01	8.00E-03	-	-	9.50E-03	1.70E-02	-	6.30E-03	-	-	-	-	-	-	1.00E-04	3.00E-04	-	3.66E-02	2.72E-02
13	PS5	Oven #6	5.91E-03	3.71E-03	2.48E+01	1.10E-02	-	-	1.31E-02	2.34E-02	-	8.66E-03	-	-	-	-	-	-	1.38E-04	4.13E-04	-	5.03E-02	3.74E-02
14	PS6	Oven #7	5.91E-03	3.71E-03	2.48E+01	1.10E-02	-	-	1.31E-02	2.34E-02	-	8.66E-03	-	-	-	-	-	-	1.38E-04	4.13E-04	-	5.03E-02	3.74E-02
		Total Facility Emissions	**1.61E-02**	**1.01E-02**	**6.79E+01**	**3.00E-02**	**2.52E-01**	**4.45E-06**	**9.22E+00**	**1.09E-01**	**5.32E+01**	**2.36E-02**	**1.18E-01**	**9.34E-07**	**1.31E+01**	**3.10E+02**	**1.11E+02**	**8.20E-03**	**3.75E-04**	**1.13E-03**	**8.73E-01**	**6.20E+01**	**4.70E+01**

Notes:
1. The CAS # for crystalline silica in the HARP software is 1175.
2. To conservatively estimate the risk from glycol ethers and acetates, the CAS # representing the most conservative toxicity values was used (109-86-4, ethylene glycol monomethyl ether).
3. Hexavalent chromium emissions from potential fugitive sources FS1 through FS6 were estimated per May 2014 - April 2015 modeling-monitoring reconciliation discussed in detail in Appendix B. Potential fugitive emissions estimated here are subject to uncertainty associated with air dispersion modeling.

Abbreviations:
CAS = Chemical Abstract Service
HARP = Hotspots Analysis Reporting Program

Table A-b
Baseline HRA, Modeled Maximum Hourly Emissions by Source and Substance, in Pounds per Hour
Hixson Metal Finishing
Newport Beach, CA

			Compound and CAS Number																			
Source Number	Source	Source Description	Acetaldehyde 75-07-0	Acrolein 107-02-8	Ammonia 7664-41-7	Benzene 71-43-2	Cadmium 7440-43-9	Crystalline Silica[1] 7631-86-9	Ethyl Benzene 100-41-4	Formaldehyde 50-00-0	Glycol Ethers and Acetates[2] 1115	Hexane 110-54-3	Hexavalent Chromium[3] 18540-29-9	Lead 7439-92-1	Methanol 67-56-1	Methyl Ethyl Ketone 78-93-3	Methyl Isobutyl Ketone 108-10-1	Nickel 7440-02-0	PAHs 1151	Naphthalene 91-20-3	Phosphoric Acid 7664-38-2	Toluene 108-88-3	Xylenes 1330-20-7
1	FS1	Building 4	-	-	-	-	-	-	-	-	-	-	1.02E-06	-	-	-	-	-	-	-	-	-	-
2	FS2	Building 3	-	-	-	-	-	-	-	-	-	-	1.31E-06	-	-	-	-	-	-	-	-	-	-
3	FS3	Building 2	-	-	-	-	-	-	-	-	-	-	4.76E-06	-	-	-	-	-	-	-	-	-	-
5	FS5	Between Building 3&4	-	-	-	-	-	-	-	-	-	-	4.70E-06	-	-	-	-	-	-	-	-	-	-
6	FS6	Between Building 2&3	-	-	-	-	-	-	-	-	-	-	1.56E-06	-	-	-	-	-	-	-	-	-	-
8	FS8	Building 3 Plating	-	-	-	-	6.04E-05	-	-	-	-	-	-	-	-	-	-	2.55E-05	-	-	-	-	-
9	PS1	SB #1	-	-	1.99E-04	-	-	2.14E-09	2.18E-03	2.15E-05	2.02E-02	-	1.57E-07	8.83E-11	1.20E-04	6.54E-02	3.23E-02	8.11E-11	-	-	8.08E-06	8.61E-03	1.22E-02
10	PS2	SB #2	-	-	1.55E-05	-	-	-	2.23E-03	3.17E-07	5.39E-03	-	1.46E-07	3.61E-10	6.18E-03	8.37E-02	2.09E-02	1.26E-12	-	-	4.12E-04	2.11E-02	1.03E-02
11	PS3	Scrubber (Anodize Line, Tank 70)	-	-	-	-	-	-	-	-	-	-	9.59E-08	-	-	-	-	-	-	-	-	-	-
12	PS4	Oven #3	8.19E-06	5.14E-06	3.43E-02	1.52E-05	-	-	1.81E-05	3.24E-05	-	1.20E-05	-	-	-	-	-	-	1.90E-07	5.71E-07	-	6.97E-05	5.18E-05
13	PS5	Oven #6	1.64E-06	1.03E-06	6.85E-03	3.05E-06	-	-	3.62E-06	6.47E-06	-	2.40E-06	-	-	-	-	-	-	3.81E-08	1.14E-07	-	1.39E-05	1.04E-05
14	PS6	Oven #7	1.64E-06	1.03E-06	6.85E-03	3.05E-06	-	-	3.62E-06	6.47E-06	-	2.40E-06	-	-	-	-	-	-	3.81E-08	1.14E-07	-	1.39E-05	1.04E-05
		Total Facility Emissions	**1.15E-05**	**7.20E-06**	**4.82E-02**	**2.13E-05**	**6.04E-05**	**2.14E-09**	**4.44E-03**	**6.72E-05**	**2.56E-02**	**1.68E-05**	**1.38E-05**	**4.49E-10**	**6.30E-03**	**1.49E-01**	**5.33E-02**	**2.55E-05**	**2.67E-07**	**8.00E-07**	**4.20E-04**	**2.98E-02**	**2.26E-02**

Notes:
1. The CAS # for crystalline silica in the HARP software is 1175.
2. To conservatively estimate the risk from glycol ethers and acetates, the CAS # representing the most conservative toxicity values was used (109-86-4, ethylene glycol monomethyl ether).
3. Hexavalent chromium emissions from potential fugitive sources FS1 through FS6 were estimated per May 2014 - April 2015 modeling-monitoring reconciliation discussed in detail in Appendix B. Potential fugitive emissions estimated here are subject to uncertainty associated with air dispersion modeling.

Abbreviations:
CAS = Chemical Abstract Service
HARP = Hotspots Analysis Reporting Program

Table A-1
Post-Implementation, Annual Emissions by Source and Substance, in Pounds per Year
Hixson Metal Finishing
Newport Beach, CA

				Compound and CAS Number																		
				Acetaldehyde	Acrolein	Ammonia	Benzene	Cadmium	Crystalline Silica[1]	Ethyl Benzene	Formaldehyde	Glycol Ethers and Acetates[2]	Hexane	Hexavalent Chromium[3]	Lead	Methanol	Methyl Ethyl Ketone	Methyl Isobutyl Ketone	Nickel	PAHs	Naphthalene	Phosphoric Acid	Toluene	Xylenes
Source Number	Source	HRA Source Description	RRP Source Description	75-07-0	107-02-8	7664-41-7	71-43-2	7440-43-9	1175	100-41-4	50-00-0	109-86-4	110-54-3	18540-29-9	7439-92-1	67-56-1	78-93-3	108-10-1	7440-02-0	1151	91-20-3	7664-38-2	108-88-3	1330-20-7
6	FS6	Between Building 2&3	Between Building 2&3	-	-	-	-	-	-	-	-	-	-	1.37E-04	-	-	-	-	-	-	-	-	-	-
9	PS1	SB #1	SB #1	-	-	1.49E-01	-	-	1.48E-06	3.06E+00	1.52E-02	1.77E+01	-	2.10E-04	3.11E-07	4.37E+00	1.03E+02	3.69E+01	5.71E-08	-	-	2.91E-01	2.06E+01	1.56E+01
10	PS2	SB #2	SB #2	-	-	1.49E-01	-	-	1.48E-06	3.06E+00	1.52E-02	1.77E+01	-	2.10E-04	3.11E-07	4.37E+00	1.03E+02	3.69E+01	5.71E-08	-	-	2.91E-01	2.06E+01	1.56E+01
11	PS3	Scrubber (Anodize Line, Tank 70)	Building 2/3 Acid Scrubber (Wet)	-	-	-	-	2.52E-01	-	-	-	-	-	-	-	-	-	-	8.15E-03	-	-	-	-	-
12	PS4	Oven #3	Oven #3	4.30E-03	2.70E-03	1.80E+01	8.00E-03	-	-	9.50E-03	1.70E-02	-	6.30E-03	-	-	-	-	-	-	1.00E-04	3.00E-04	-	3.66E-02	2.72E-02
13	PS5	Oven #6	Oven #6	5.91E-03	3.71E-03	2.48E+01	1.10E-02	-	-	1.31E-02	2.34E-02	-	8.66E-03	-	-	-	-	-	-	1.38E-04	4.13E-04	-	5.03E-02	3.74E-02
14	PS6	Oven #7	Oven #7	5.91E-03	3.71E-03	2.48E+01	1.10E-02	-	-	1.31E-02	2.34E-02	-	8.66E-03	-	-	-	-	-	-	1.38E-04	4.13E-04	-	5.03E-02	3.74E-02
15	PS7	-	Oven #12	5.91E-03	3.71E-03	2.48E+01	1.10E-02	-	-	1.31E-02	2.34E-02	-	8.66E-03	-	-	-	-	-	-	1.38E-04	4.13E-04	-	5.03E-02	3.74E-02
16	PS8	-	Oven #14	5.91E-03	3.71E-03	2.48E+01	1.10E-02	-	-	1.31E-02	2.34E-02	-	8.66E-03	-	-	-	-	-	-	1.38E-04	4.13E-04	-	5.03E-02	3.74E-02
17	PS9	-	SB #3	-	-	1.49E-01	-	-	1.48E-06	3.06E+00	1.52E-02	1.77E+01	-	2.10E-04	3.11E-07	4.37E+00	1.03E+02	3.69E+01	5.71E-08	-	-	2.91E-01	2.06E+01	1.56E+01
18	PS10	-	Building 2/WT Chromic Scrubber (Dry)	-	-	-	-	-	-	-	-	-	-	3.57E-04	-	-	-	-	-	-	-	-	-	-
19	PS11	-	Building 3 Chromic Scrubber (Dry)	-	-	-	-	-	-	-	-	-	-	2.63E-07	-	-	-	-	-	-	-	-	-	-
20	PS12	-	Demasking, Downdraft Table 1	-	-	-	-	-	-	-	-	-	-	3.88E-07	-	-	-	-	-	-	-	-	-	-
21	PS13	-	Demasking, Downdraft Table 2	-	-	-	-	-	-	-	-	-	-	3.88E-07	-	-	-	-	-	-	-	-	-	-
23	PS15	-	Scuffing Booth, Stack 1	-	-	-	-	-	-	-	-	-	-	1.21E-06	-	-	-	-	-	-	-	-	-	-
24	PS16	-	Scuffing Booth, Stack 2	-	-	-	-	-	-	-	-	-	-	1.21E-06	-	-	-	-	-	-	-	-	-	-
25	PS17	-	Building 4 HEPA Chamber and Fan	-	-	-	-	-	-	-	-	-	-	2.87E-07	-	-	-	-	-	-	-	-	-	-
			Total Facility Emissions	**2.80E-02**	**1.76E-02**	**1.17E+02**	**5.20E-02**	**2.52E-01**	**4.45E-06**	**9.24E+00**	**1.56E-01**	**5.32E+01**	**4.10E-02**	**1.13E-03**	**9.34E-07**	**1.31E+01**	**3.10E+02**	**1.11E+02**	**8.16E-03**	**6.50E-04**	**1.95E-03**	**8.73E-01**	**6.21E+01**	**4.71E+01**

Notes:
1. The CAS # for crystalline silica is 7631-86-9 but in the HARP software it is 1175.
2. To conservatively estimate the risk from glycol ethers and acetates (CAS # 1115), the CAS # representing the most conservative toxicity values was used (109-86-4, ethylene glycol monomethyl ether).
3. Hexavalent chromium emissions from potential fugitive sources were estimated per May 2014 - April 2015 modeling-monitoring reconciliation discussed in detail in Appendix B, then adjusted for the risk reduction measures currently under evaluation, as discussed in Section 5 of the Risk Reduction Plan. Potential fugitive emissions estimated here are subject to uncertainty associated with air dispersion modeling.

Abbreviations:
CAS = Chemical Abstract Service
HARP = Hotspots Analysis Reporting Program
HRA = Health Risk Assessment
RRP = Risk Reduction Plan

Table A-2
Post-Implementation, Hourly Emissions by Source and Substance, in Pounds per Hour
Hixson Metal Finishing
Newport Beach, CA

				Compound and CAS Number																		
				Acetaldehyde	Acrolein	Ammonia	Benzene	Cadmium	Crystalline Silica[1]	Ethyl Benzene	Formaldehyde	Glycol Ethers and Acetates[2]	Hexane	Hexavalent Chromium[3]	Lead	Methanol	Methyl Ethyl Ketone	Methyl Isobutyl Ketone	Nickel	PAHs	Naphthalene	Phosphoric Acid	Toluene	Xylenes
Source Number	**Source**	**HRA Source Description**	**RRP Source Description**	**75-07-0**	**107-02-8**	**7664-41-7**	**71-43-2**	**7440-43-9**	**1175**	**100-41-4**	**50-00-0**	**109-86-4**	**110-54-3**	**18540-29-9**	**7439-92-1**	**67-56-1**	**78-93-3**	**108-10-1**	**7440-02-0**	**1151**	**91-20-3**	**7664-38-2**	**108-88-3**	**1330-20-7**
6	FS6	Between Building 2&3	Between Building 2&3	-	-	-	-	-	-	-	-	-	-	1.56E-08	-	-	-	-	-	-	-	-	-	-
9	PS1	SB #1	SB #1	-	-	7.15E-05	-	-	7.14E-10	1.47E-03	7.29E-06	8.53E-03	-	1.01E-07	1.50E-10	2.10E-03	4.97E-02	1.78E-02	2.75E-11	-	-	1.40E-04	9.92E-03	7.52E-03
10	PS2	SB #2	SB #2	-	-	7.15E-05	-	-	7.14E-10	1.47E-03	7.29E-06	8.53E-03	-	1.01E-07	1.50E-10	2.10E-03	4.97E-02	1.78E-02	2.75E-11	-	-	1.40E-04	9.92E-03	7.52E-03
11	PS3	Scrubber (Anodize Line, Tank 70)	Building 2/3 Acid Scrubber (Wet)	-	-	-	-	6.04E-05	-	-	-	-	-	-	-	-	-	-	2.55E-05	-	-	-	-	-
12	PS4	Oven #3	Oven #3	8.19E-06	5.14E-06	3.43E-02	1.52E-05	-	-	1.81E-05	3.24E-05	-	1.20E-05	-	-	-	-	-	-	1.90E-07	5.71E-07	-	6.97E-05	5.18E-05
13	PS5	Oven #6	Oven #6	1.64E-06	1.03E-06	6.85E-03	3.05E-06	-	-	3.62E-06	6.47E-06	-	2.40E-06	-	-	-	-	-	-	3.81E-08	1.14E-07	-	1.39E-05	1.04E-05
14	PS6	Oven #7	Oven #7	1.64E-06	1.03E-06	6.85E-03	3.05E-06	-	-	3.62E-06	6.47E-06	-	2.40E-06	-	-	-	-	-	-	3.81E-08	1.14E-07	-	1.39E-05	1.04E-05
15	PS7	-	Oven #12	1.64E-06	1.03E-06	6.85E-03	3.05E-06	-	-	3.62E-06	6.47E-06	-	2.40E-06	-	-	-	-	-	-	3.81E-08	1.14E-07	-	1.39E-05	1.04E-05
16	PS8	-	Oven #14	1.64E-06	1.03E-06	6.85E-03	3.05E-06	-	-	3.62E-06	6.47E-06	-	2.40E-06	-	-	-	-	-	-	3.81E-08	1.14E-07	-	1.39E-05	1.04E-05
17	PS9	-	SB #3	-	-	7.15E-05	-	-	7.14E-10	1.47E-03	7.29E-06	8.53E-03	-	1.01E-07	1.50E-10	2.10E-03	4.97E-02	1.78E-02	2.75E-11	-	-	1.40E-04	9.92E-03	7.52E-03
18	PS10	-	Building 2/WT Chromic Scrubber (Dry)	-	-	-	-	-	-	-	-	-	-	7.79E-08	-	-	-	-	-	-	-	-	-	-
19	PS11	-	Building 3 Chromic Scrubber (Dry)	-	-	-	-	-	-	-	-	-	-	6.31E-11	-	-	-	-	-	-	-	-	-	-
20	PS12	-	Demasking, Downdraft Table 1	-	-	-	-	-	-	-	-	-	-	8.46E-11	-	-	-	-	-	-	-	-	-	-
21	PS13	-	Demasking, Downdraft Table 2	-	-	-	-	-	-	-	-	-	-	8.46E-11	-	-	-	-	-	-	-	-	-	-
23	PS15	-	Scuffing Booth, Stack 1	-	-	-	-	-	-	-	-	-	-	1.71E-10	-	-	-	-	-	-	-	-	-	-
24	PS16	-	Scuffing Booth, Stack 2	-	-	-	-	-	-	-	-	-	-	1.71E-10	-	-	-	-	-	-	-	-	-	-
25	PS17	-	Building 4 HEPA Chamber and Fan	-	-	-	-	-	-	-	-	-	-	4.04E-11	-	-	-	-	-	-	-	-	-	-
			Total Facility Emissions	**1.47E-05**	**9.25E-06**	**6.19E-02**	**2.74E-05**	**6.04E-05**	**2.14E-09**	**4.45E-03**	**8.01E-05**	**2.56E-02**	**2.16E-05**	**3.97E-07**	**4.49E-10**	**6.30E-03**	**1.49E-01**	**5.33E-02**	**2.55E-05**	**3.43E-07**	**1.03E-06**	**4.20E-04**	**2.99E-02**	**2.27E-02**

Notes:
1. The CAS # for crystalline silica is 7631-86-9 but in the HARP software it is 1175.
2. To conservatively estimate the risk from glycol ethers and acetates (CAS # 1115), the CAS # representing the most conservative toxicity values was used (109-86-4, ethylene glycol monomethyl ether).

3. Hexavalent chromium emissions from potential fugitive sources were estimated per May 2014 - April 2015 modeling-monitoring reconciliation discussed in detail in Appendix B, then adjusted for the risk reduction measures currently under evaluation, as discussed in Section 5 of the Risk Reduction Plan. Potential fugitive emissions estimated here are subject to uncertainty associated with air dispersion modeling.

Abbreviations:
CAS = Chemical Abstract Service
HARP = Hotspots Analysis Reporting Program
HRA = Health Risk Assessment
RRP = Risk Reduction Plan

Table A-3
Post-Implementation, Point Source Modeling Parameters
Hixson Metal Finishing
Newport Beach, California

Source Number	Source	UTM East (m)	UTM North (m)	Base Elevation (m)	Modeled Emission Rate (g/s)	Stack Height (m)	Stack Diameter (m)	Stack Temperature (K)	Exhaust Flow Rate (acfm)	Exhaust Velocity (m/s)
PS1	SB #1	413,380.94	3,721,605.30	32.83	1	6.8	0.61	304.8	10,649	18.5
PS2	SB #2	413,369.49	3,721,597.43	32.68	1	6.8	0.76	300.5	11,374	12.4
PS3	Building 2/3 Acid Scrubber (Wet)	413,465.78	3,721,609.67	32.74	1	7.6	0.61	300.0	9,000	14.6
PS4	Oven #3	413,380.93	3,721,625.18	32.81	1	6.1	0.25	390.9	2,224	20.7
PS5	Oven #6	413,358.74	3,721,605.73	32.82	1	6.2	0.20	400.4	2,087	43.9
PS6	Oven #7	413,358.85	3,721,602.84	32.8	1	6.3	0.20	381.5	2,361	47.2
PS7	Oven #12	413,358.84	3,721,598.39	32.74	1	6.2	0.20	400.0	2,200	45.0
PS8	Oven #14	413,358.30	3,721,614.50	32.85	1	6.2	0.20	400.0	2,200	45.0
PS9	SB #3	413,362.79	3,721,614.40	32.87	1	6.8	0.75	300.0	10,000	15.0
PS10	Building 2/WT Chromic Scrubber (Dry)	413,463.08	3,721,602.21	32.7	1	7.6	0.76	300.0	14,300	14.8
PS11	Building 3 Chromic Scrubber (Dry)	413,424.61	3,721,597.68	32.74	1	7.6	0.71	300.0	13,250	15.7
PS12	Demasking, Downdraft Table 1	413,351.76	3,721,607.36	32.78	1	7.6	0.46	300.0	5,000	14.4
PS13	Demasking, Downdraft Table 2	413,351.81	3,721,604.42	32.76	1	7.6	0.46	300.0	5,000	14.4
PS15	Scuffing Booth, Stack 1	413,372.13	3,721,597.36	32.67	1	7.6	0.61	300.0	9,000	14.6
PS16	Scuffing Booth, Stack 2	413,373.41	3,721,597.36	32.68	1	7.6	0.61	300.0	9,000	14.6
PS17	Building 4 HEPA Chamber and Fan	413,378.62	3,721,597.43	32.72	1	7.6	0.76	300.0	15,000	15.5

Notes
1. Source parameters for new sources (PS7-PS17) are based on the current information available, and in some cases may be approximate.

Abbreviations:
acfm = actual cubic feet per minute
g/s = grams per second
K = Kelvin
m = meter
m/s = meters per second
SB = Spray Booth
UTM = Universal Transverse Mercator

Table A-4
Post-Implementation, Area Source Modeling Parameters
Hixson Metal Finishing
Newport Beach, California

Source Number	Source	UTM East[1] (m)	UTM North[1] (m)	Base Elevation (m)	Area (m^2)	Modeled Emission Rate[2] (g/ (s-m^2))	Release Height[3] (m)	Initial Vertical Dimension[4] (m)
FS1	Building 4	413,382.1	3,721,628.0	32.77	969.2	0.00103	2.3	2.13
FS2	Building 3	413,396.5	3,721,627.4	32.67	969.2	0.00103	2.3	2.13
FS3	Building 2	413,442.0	3,721,628.0	32.52	998.9	0.00100	4.6	2.13
FS5	Between Buildings 3 and 4	413,382.1	3,721,596.7	32.67	457.5	0.00219	0	0.00
FS6	Between Buildings 2 and 3	413,427.4	3,721,628.0	32.63	463.5	0.00216	0	0.00
FS8	Building 3 Plating	413,396.5	3,721,627.4	32.67	969.2	0.00103	2.3	2.13

Notes:

1. Represents the coordinates of the first vertex as it appears in the modeling files.
2. Modeled emission rates were derived using unit emission rates of 1 g/s and corresponding areas.
3. Due to the strong pull from the roof vents/fans on Building 2, the release height for this fugitive source has been set to the building height. The release height for Buildings 3 and 4 have been set to 1/2 of the building height.
4. The initial vertical dimension for Building sources represents the building height divided by 2.15, per model guidance.

Abbreviations:

g/s-m^2 = grams per second per meter squared
K = Kelvin
m = meter
UTM = Universal Transverse Mercator

Table A-5
Operating Schedules
Hixson Metal Finishing
Newport Beach, California

Source Number	Source	Weekday Hours of Operation	Weekday Shift Hours	Weekend Hours of Operation[1]	Weekend Shift Hours	Hours/Week[2]	Hours/Year
PS1	SB #1	24	all	8	6am - 2pm	136	7091
PS2	SB #2	24	all	0	-	120	6257
PS3	Building 2/3 Acid Scrubber (Wet)	16	6am - 10pm	0	-	80	4171
PS4	Oven #3	24	all	24	all	168	8760
PS5	Oven #6	24	all	8	6am - 2pm	136	7091
PS6	Oven #7	24	all	8	6am - 2pm	136	7091
PS7	Oven #12	24	all	8	6am - 2pm	136	7091
PS8	Oven #14	24	all	8	6am - 2pm	136	7091
PS9	SB #3	24	all	8	6am - 2pm	136	7091
PS10	Building 2/WT Chromic Scrubber (Dry)	16	6am - 10pm	8	6am - 2pm	88	4589
PS11	Building 3 Chromic Scrubber (Dry)	16	6am - 10pm	0	-	80	4171
PS12	Demasking, Downdraft Table 1	16	6am - 10pm	8	6am - 2pm	88	4589
PS13	Demasking, Downdraft Table 2	16	6am - 10pm	8	6am - 2pm	88	4589
PS15	Scuffing Booth, Stack 1	24	all	8	6am - 2pm	136	7091
PS16	Scuffing Booth, Stack 2	24	all	8	6am - 2pm	136	7091
PS17	Building 4 HEPA Chamber and Fan	24	all	8	6am - 2pm	136	7091
FS1	Building 4	24	all	24	all	168	8760
FS2	Building 3	24	all	24	all	168	8760
FS3	Building 2	24	all	24	all	168	8760
FS4	Building 1	24	all	24	all	168	8760
FS5	Between Buildings 3 and 4	24	all	24	all	168	8760
FS6	Between Buildings 2 and 3	24	all	24	all	168	8760
FS7	Between Buildings 1 and 2	24	all	24	all	168	8760
FS8	-	16	6am - 10pm	0	-	80	4171

Notes:

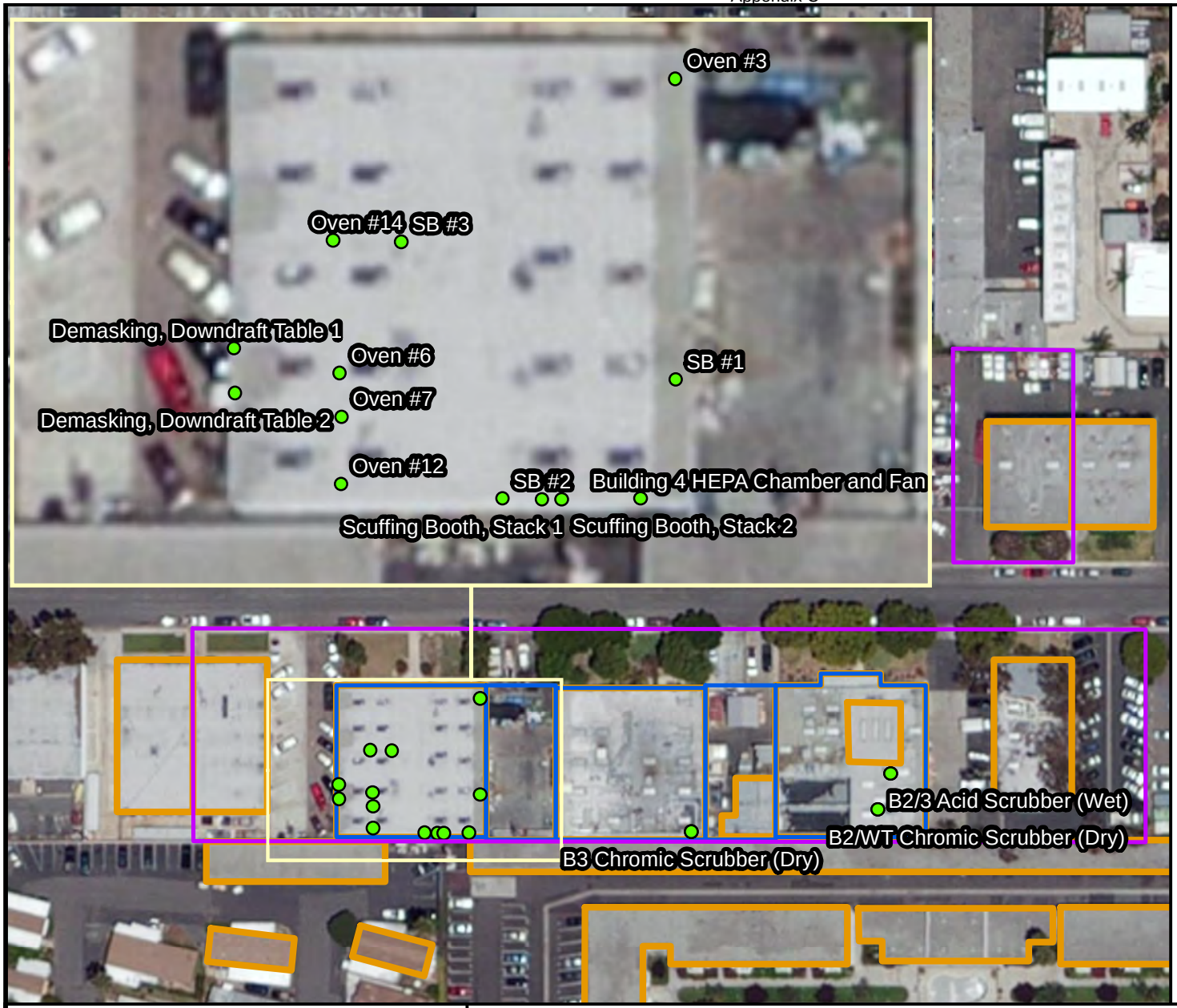
1. Building 2/WT Chromic Scrubber (Dry) and Demasking operates only on Saturdays in addition to its weekday schedule. All other sources that operate on the weekends operate on both Saturdays and Sundays.

2. Note that while some scrubber and control units may operate 24 hours a day, 7 days a week, the modeling was conducted to follow the schedule of primary emissions generation.

Abbreviations:

SB = Spray Booth

Appendix A Figures



Legend

- Facility Boundary
- Point Sources
- Potential Fugitive Sources
- Buildings

SB = Spray Booth

0 90 180 Feet

0 25 50 Meters

RAMBOLL ENVIRON

Post-Implementation, Property Layout
Hixson Metal Finishing
Newport Beach, California

N

Figure
A-1

Legend

MEIR Locations

Facility Boundary

0 62.5 125 Feet

0 30 60 Meters

RAMBOLL ENVIRON

Post-Implementation, MEIR Locations
Hixson Metal Finishing
Newport Beach, California

N

Figure
A-2

Legend

MEIW Locations

Facility Boundary

0 62.5 125 Feet

0 30 60 Meters

RAMBOLL ENVIRON

Post-Implementation, MEIW Locations
Hixson Metal Finishing
Newport Beach, California

N

Figure
A-3

Appendix B

Potential Fugitive Cr(VI) Emissions Determination - Baseline Conditions

List of Appendix B Tables

List of Appendix B Figures

Appendix B
Potential Fugitive Cr(VI) Emissions Determination – Baseline Conditions

To determine the potential fugitive Cr(VI) emissions over the 12 month period from May 2014 through April 2015, Ramboll Environ performed modeling-monitoring reconciliation, as discussed below. The resulting potential fugitive Cr(VI) emission rates as estimated here, serve as the baseline for the RRP.

Ramboll Environ performed an hourly air dispersion model using 2014-2015 John Wayne Airport meteorological data to reconcile with daily Cr(VI) offsite monitoring results. Ramboll Environ used AERMOD with X/Q emissions to model Cr(VI) emissions during the May 2014 through April 2015 period. The model included five potential fugitive sources representing Buildings 2, 3, and 4 and the breezeways between Buildings 2/3 and 3/4, as well as three point sources: the current paint spray booths and the anodize line. Due to the low activity and handling of Cr(VI)-containing materials in Building 1 and in between Building 1 and 2, these areas are not expected to be potential fugitive Cr(VI) emission sources. Source parameters for the point and potential fugitive area sources are in Tables B-1 and B-2.

The model set-up for the reconciliation analysis paralleled that discussed in the HRA submitted on November 14, 2014, with the following differences:

- 2014-2015 John Wayne Airport meteorological data was used, to match the reconciliation period. A wind rose for the 2014-2015 reconciliation period is provided in Figure B-1;
- Only Cr(VI) sources were modeled, including the five potential fugitive sources and three point sources;
- 1-hr average post files were generated, so that appropriate 24-hr averages could be calculated to match actual sample run times during the reconciliation period; and
- Only two receptors were included to represent the Millet and Apartments monitors, as discussed below.

The two modeled receptors included in the model represented the two offsite monitors, Apartments (UTM coordinates 413,390.1 m East and 3,721,595.3 m North) and Millet (UTM coordinates 413,428.2 m East and 3,721,666.3 m North). Locations of these monitors are shown in Figure B-2. Flagpole heights were used to represent the locations of the monitor air intakes (2.7 meters for the Millet monitor, and 4.0 meters for the Apartments monitor).

During this period, the monitors collected continuous 24-hr samples of Cr(VI) on filters at a daily frequency. 351 days within the reconciliation period had valid Cr(VI) samples from both the Millet and Apartments monitors. An additional 6 days had valid Cr(VI) samples from either the Millet or Apartments monitors. Once daily sampling began on April 17, 2014, samples were collected from 8 am to 8 am. To accurately compare model results with the 24-hr samples, 1-hr average dispersion factors were computed for every hour from May 1, 2014 to May 1, 2015,[10] and 24-hr averages were calculated to match the daily sampling schedule described. Samples that were flagged as irregular (e.g. “shorter” or “longer” sample elapsed time) were excluded

[10] Note that the model was run through May 1, 2015 since the April 30, 2015 sample duration extends until 8 am on May 1, 2015.

from this analysis. When calculating 24-hr averages, AERMOD regulatory default methods were employed, including the treatment of calms and missing meteorological data.

Using the 357 days of valid sampling data, of which 351 days have data at both monitors, a least squares optimization approach was used to determine the reconciled emission rates of each potential fugitive source (5 independent emission rates). The minimization was done using the Generalized Reduced Gradient (GRG) algorithm in the Solver package in Microsoft Excel (2013 package), assuming default Solver settings with the exception of turning off the automatic scaling function. The automatic scaling function forces Solver to internally rescale the values of the variables, constraints, and objectives to similar magnitudes. However, there is no reason to believe that each potential fugitive source contributes in an equal manner to the monitor results; therefore, this function was not used. Before running Solver, the calculated point source contribution at each monitor was subtracted from the monitoring results. Point source contributions were determined based on the appropriate dispersion factors and emission rates. Point source Cr(VI) emissions were estimated using the same methods as presented in the 2013 AER, with the following update:

- To account for the installation of the ULPA filtration system on both spray booths, a 99.999% control efficiency was applied to Cr(VI) emissions[11] instead of the 99.997% control efficiency of the prior filters used in 2013.

Point source emission rates used in this reconciliation are summarized in Table B-3.

Due to the significant reductions seen in Cr(VI) monitored concentrations, several sample days within this period see results that are at the same magnitude or lower than background Cr(VI) concentrations, as reported in the SCAQMD MATES IV study (SCAQMD 2015b). The MATES IV study measured ambient Cr(VI) at ten sites in the South Coast Air Basin from 2012 to 2013 and found background annual average Cr(VI) concentrations ranging from 0.03 ng/m^3 to 0.11 ng/m^3. The closest MATES IV monitors to the Facility are to the north, in Long Beach. In North Long Beach the sampled annual average Cr(VI) concentration was 0.04 ng/m^3 and in West Long Beach the sampled annual average Cr(VI) concentration was 0.03 ng/m^3. These coastal sites might reasonably be expected to represent the background Cr(VI) concentration in Newport Beach, and at the Facility. To account for background concentrations, in addition to subtracting the point source contributions, 0.03 ng/m^3 was subtracted from each monitor concentration. If this resulted in a negative concentration, the concentration was then set to zero before running Solver. Subtracting a background concentration of 0.03 ng/m^3 is a conservative approach as the North Long Beach and West Long Beach monitors saw maximum background concentrations of 0.20 ng/m^3 and 0.14 ng/m^3, respectively, with standard deviations of 0.04 ng/m^3 and 0.03 ng/m^3, respectively.

For sample days with valid samples at both monitors, Solver was used to minimize the difference between the modeled concentrations and the monitored concentrations (minus point source and background contribution) at both monitors simultaneously. For the sample days with valid samples at only one monitor, Solver was used to minimize the difference between the modeled concentration and the monitored concentration (minus point source and background contribution) at the given monitor. To account for onsite monitoring data,[12] reconciled emissions

[11] The upgraded filter control efficiency was still applied after the 65% spray gun transfer efficiency.

[12] Onsite monitors are set-up on Buildings 2, 3, and 4 and in between Buildings 2/3 and 3/4.

rates were then totaled over all potential fugitive Cr(VI) sources and reallocated to each individual source based on the relative contribution of each corresponding onsite monitor to total daily monitored concentrations. The location of onsite monitors are shown in Figure B-3. This reallocation was done on a daily basis. On days with any missing or invalid onsite monitoring data (for any of the five monitors), emissions were not reallocated and were kept as determined through the reconciliation with offsite monitors. Using this method, 357 individual sets of solutions were computed, for each day with valid sampling data in the May 2014 through April 2015 period.

To account for curtailment periods during May 2014 through April 2015, emission rates estimated for any day when the facility was shut down were excluded from the analysis. This ensures that the baseline emission rates used for the RRP represent normal and enforceable operations that will continue in the future. Hixson was shut down for a total of 152 days during the May 2014 through April 2015 period, of which 147 corresponding with valid monitoring data. [13]

Resulting emission rates for each valid operating day (a total of 210 days) were then averaged to determine the current reconciled and reallocated potential fugitive Cr(VI) emission rates used as a baseline to this RRP. Table B-4 presents the reconciled and reallocated Cr(VI) emission rates for each of the five potential fugitive sources modeled, averaged over each valid sample day. These emission rates were applied in the Baseline HRA. To demonstrate the fit of the reconciled and reallocation Cr(VI) emission rates to the monitored Cr(VI) concentrations, results of each daily reconciliation and reallocation performed are plotted against the monitored concentration (minus point source and background contributions) in Figures B-4 and B-5 for the Millet and Apartments monitors, respectively. The Millet monitor sees a better overall fit, with an R-squared value of 0.81, as compared to 0.26 at the Apartments monitor.

Air dispersion models introduce a source of uncertainty in the estimation of exposure concentrations; therefore the resulting reconciled emissions are also subject to the uncertainty introduced through the model.

Supporting calculations for the modeling-monitoring reconciliation and reallocation of potential fugitive Cr(VI) emissions are provided in Appendix C.

[13] The days when Hixson was shut down within the May 2014 through April 2015 period are flagged in the supporting calculation files included in Appendix C.

Appendix B Tables

Table B-1
Reconciliation, Point Source Modeling Parameters
Hixson Metal Finishing
Newport Beach, California

Source Number	Source	UTM East (m)	UTM North (m)	Base Elevation (m)	Modeled Emission Rate (g/s)	Stack Height (m)	Stack Diameter (m)	Stack Temperature (K)	Exhaust Flow Rate (acfm)	Exhaust Velocity (m/s)
PS1	SB #1	413,411.30	3,721,600.93	33.02	1	6.8	0.61	304.8	10,649	18.5
PS2	SB #2	413,371.50	3,721,612.79	32.83	1	6.8	0.76	300.5	11,374	12.4
PS3	Scrubber (Anodize Line, Tank 70)	413,465.76	3,721,610.29	32.74	1	7.6	0.46	304.8	3,564	10.8

Abbreviations:
acfm = actual cubic feet per minute
g/s = grams per second
K = Kelvin
m = meter
m/s = meters per second
SB = Spray Booth
UTM = Universal Transverse Mercator

Table B-2
Reconciliation, Area Source Modeling Parameters
Hixson Metal Finishing
Newport Beach, California

Source Number	Source	UTM East[1] (m)	UTM North[1] (m)	Base Elevation (m)	Area (m^2)	Modeled Emission Rate[2] (g/ ($s-m^2$))	Release Height[3] (m)	Initial Vertical Dimension[4] (m)
FS1	Building 4	413,382.1	3,721,628.0	32.77	969.2	0.00103	2.3	2.13
FS2	Building 3	413,396.5	3,721,627.4	32.67	969.2	0.00103	2.3	2.13
FS3	Building 2	413,442.0	3,721,628.0	32.52	998.9	0.00100	4.6	2.13
FS5	Between Buildings 3 and 4	413,382.1	3,721,596.7	32.67	457.5	0.00219	0	0.00
FS6	Between Buildings 2 and 3	413,427.4	3,721,628.0	32.63	463.5	0.00216	0	0.00

Notes:

1. Represents the coordinates of the first vertex as it appears in the modeling files.
2. Modeled emission rates were derived using unit emission rates of 1 g/s and corresponding areas.
3. Due to the strong pull from the roof vents/fans on Building 2, the release height for this fugitive source has been set to the building height. The release height for Buildings 3 and 4 have been set to 1/2 of the building height.
4. The initial vertical dimension for Building sources represents the building height divided by 2.15, per model guidance.

Abbreviations:

$g/s-m^2$ = grams per second per meter squared

K = Kelvin

m = meter

UTM = Universal Transverse Mercator

Table B-3
Reconciliation, Point Source Emission Rates
Hixson Metal Finishing
Newport Beach, California

Source Number	Source	5/1/14 - 4/30/15 Emissions (lbs)[1]	5/1/14 - 4/30/15 Emissions (g/s)[2]	Weekday Operating Hours (hrs)	Weekend Operating Hours (hrs)	Operating Hours/Period in Consideration (hrs)
PS1	SB #1	3.27E-04	5.81E-09	24	8	7091
PS2	SB #2	3.03E-04	6.10E-09	24	0	6257
PS3	Scrubber (Anodize Line, Tank 70)	3.57E-04	1.08E-08	16	0	4171

Notes:

1. Emissions are based on 2013 Annual Emission Report (AER) data and updated control efficiencies.

2. Since variable emission rates were modeled with '0' in periods of no operation and '1' in periods of operation, corresponding g/s emission rates were derived by dividing the total emissions from 5/1/14-4/30/15 by the operating hours within that period.

Abbreviations:

g = gram
hrs = hours
lbs = pounds
SB = Spray Booth
s = second

Table B-4
Reconciled Cr(VI) Potential Fugitive Source Emission Rates
Hixson Metal Finishing
Newport Beach, CA

Estimated Emission Rates by Potential Fugitive Source (g/s)				
B4	**B3**	**B2**	**Btwn 3&4**	**Btwn 2&3**
FS1	**FS2**	**FS3**	**FS5**	**FS6**
1.3E-07	1.7E-07	6.0E-07	5.9E-07	2.0E-07

Abbreviations:
Cr(VI) = hexavalent chromium
g/s = gram per second

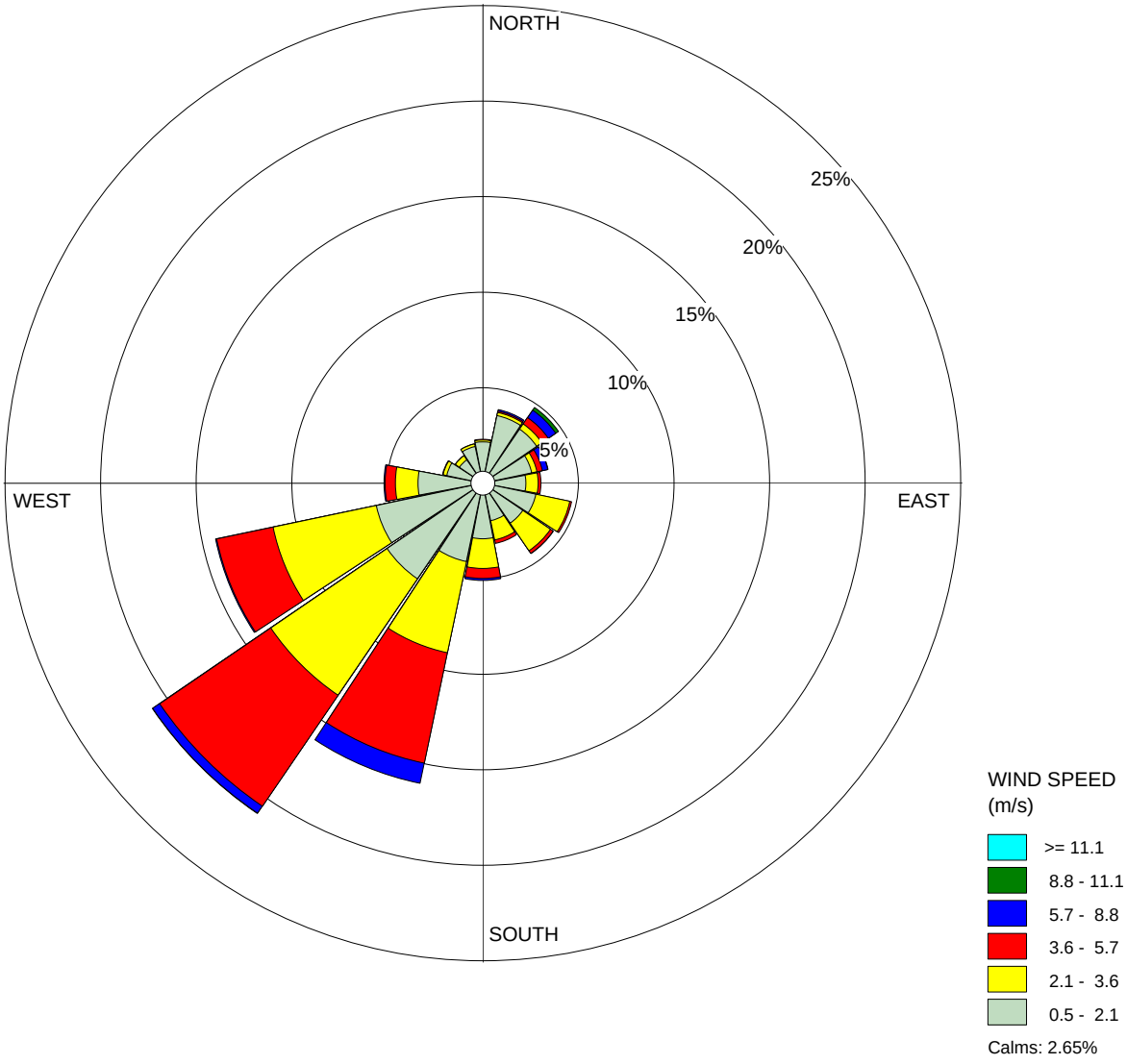
Appendix B Figures

WIND ROSE PLOT:

Figure B-1: Wind Rose for John Wayne Airport
May 2014 - April 2015

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD: **Start Date: 5/1/2014 - 00:00** **End Date: 5/1/2015 - 08:00**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **2.65%**	TOTAL COUNT: **8735 hrs.**	
	AVG. WIND SPEED: **2.39 m/s**	DATE: **6/1/2015**	PROJECT NO.:

WRPLOT View - Lakes Environmental Software

Legend

Monitors

Facility Boundary

0 45 90 Feet

0 20 40 Meters

RAMBOLL ENVIRON

Locations of Offsite Monitors
Hixson Metal Finishing
Newport Beach, California

N

Figure
B-2

Legend

- Monitors
- Facility Boundary

0 45 90 Feet

0 20 40 Meters

N

RAMBOLL ENVIRON

Locations of Onsite Monitors
Hixson Metal Finishing
Newport Beach, California

Figure
B-3

Figure B-4. May 2014 - April 2015 Millet Monitor v Reconciled and Reallocated Concentrations

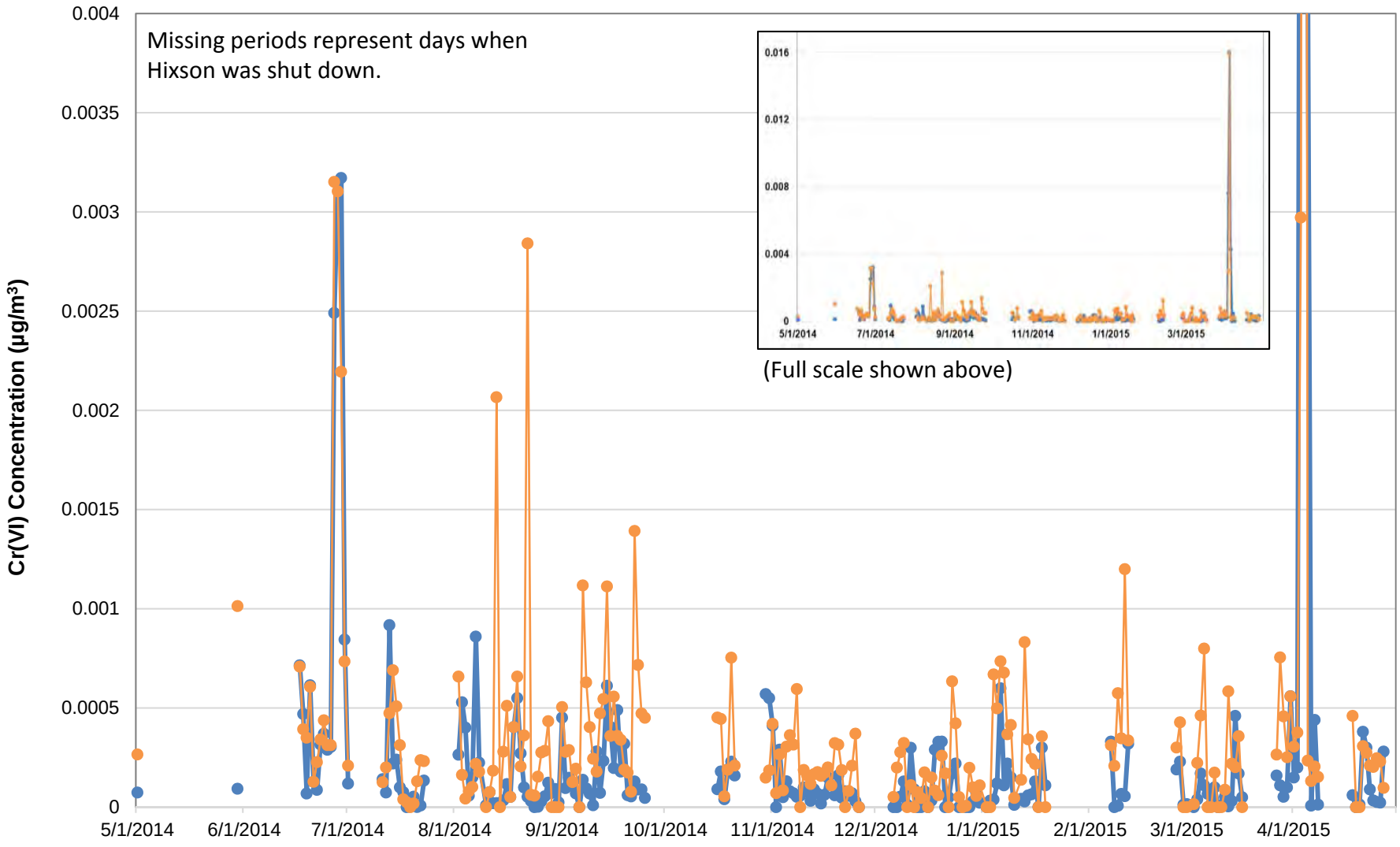
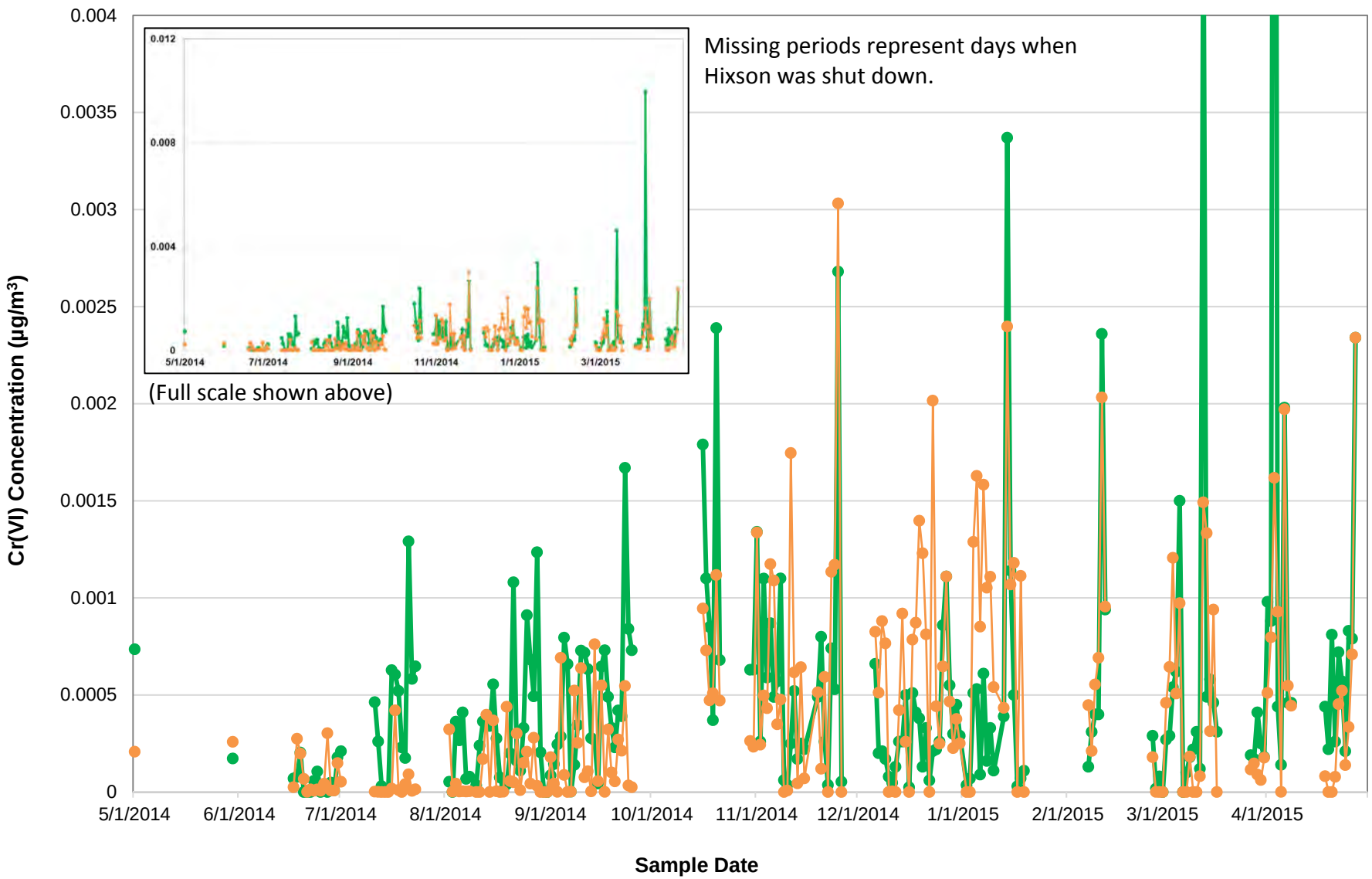


Figure B-5. May 2014 - April 2015 Apartments Monitor v Reconciled and Reallocated Concentrations



Appendix C

Supporting Calculations

[Provided Electronically]

1 Supporting Calculations Files

File Name	File Description
Cancer Burden.xlsx	Calculations performed to determine cancer burden for the Baseline HRA and Post-Implementation scenarios
May2014-Apr2015_Reconciliation.xlsx	Calculations performed to determine fugitive emission rates used for the Baseline HRA by reconciling monitor concentrations with AERMOD modeling results
RRP Emissions.xlsx	Calculations performed to determine air toxics emissions to be used in HARP2 for the Post-Implementation scenario

Appendix D

Air Dispersion Modeling Files and HARP Files

[Provided Electronically]

1 Meteorological Data Files

1.1 Reconciliation Meteorological Data

1.1.1 AERMINUTE

File Name	File Description
*.INP	AERMINUTE Input Files, Years 2014-2015 (2 total)
*.DAT	AERMINUTE Output Files, Years 2014-2015 (2 total)

1.1.2 AERSURFACE

File Name	File Description
AERSURFACE.INP	AERSURFACE Input File
SURF_PARAMS.OUT	AERSURFACE Output File

1.1.3 AERMET

File Name	File Description
*in1	AERMET Stage 1 Input Files, Years 2014-2015 (2 total)
*in2	AERMET Stage 2 Input Files, Years 2014-2015 (2 total)
*in3	AERMET Stage 3 Input Files, Years 2014-2015 (2 total)
*OU1	AERMET Stage 1 Output Files, Years 2014-2015 (2 total)
*OU2	AERMET Stage 2 Output Files, Years 2014-2015 (2 total)
*OU3	AERMET Stage 3 Output Files, Years 2014-2015 (2 total)

1.1.4 Final Meteorological Files

File Name	File Description
KSNA.2014-2015.PFL	John Wayne Airport Profile File, Years 2014-2015
KSNA.2014-2015.SFC	John Wayne Airport Surface File, Years 2014-2015

1.2 Baseline HRA and RRP Meteorological Data[14]

File Name	File Description
KSNA.5Y.PFL	John Wayne Airport Profile File, Years 2009-2013
KSNA.5Y.SFC	John Wayne Airport Surface File, Years 2009-2013

[14] The same meteorological files were also used for the 2013 reconciliation effort.

2 AERMOD Modeling Files

2.1 Reconciliation

File Name	File Description
Reconciliation_Model_052014to042015.inp	AERMOD Input File, Reconciliation run
Reconciliation_Model_052014to042015.out	AERMOD Output File, Reconciliation run
ERRORS.LST	AERMOD Error File, Reconciliation run
SUMMARYFILE.SUM	AERMOD Summary File, Reconciliation run
*.PST	1-hr post files for three Cr(VI) point sources and five potential Cr(VI) fugitive sources (8 total)

2.2 Baseline HRA

2.2.1 Baseline HRA Model, Cancer, Chronic Run[15]

File Name	File Description
HRA_Baseline_Chronic.inp	AERMOD Input File, Cancer and Chronic HI run
HRA_Baseline_Chronic.out	AERMOD Output File, Cancer and Chronic HI run
ERRORS.LST	AERMOD Error File, Cancer and Chronic HI run
SUMMARYFILE.SUM	AERMOD Summary File, Cancer and Chronic HI run
*.PLT	Period average and 1st high, 1-hr plot files for six point sources and eight fugitive sources (28 total), Cancer and Chronic HI run[16]

2.2.2 Baseline HRA Model, Acute Run[17]

File Name	File Description

[15] Since variable emission rates were used, separate runs were performed for cancer risks/chronic HI and acute HI analyses. In the cancer risks/chronic HI run, which depends on annual emissions, variable emission rate scalars were adjusted such that the annual emissions sum to 31,536 kg/yr (i.e. the variable emission rate scalars sum to 8760 hours per year). In the acute HI run, which depends on maximum hourly emissions, variable emission rates were entered such that a 1 g/s emission rate was applied when emissions are on and a 0 g/s emission rate was applied when emissions are off (i.e. the variable emission rate scalars sum to the actual hours of operation per year).

[16] Note that both period average and 1st high, 1-hr plot files are required to be imported into HARP2 for the program to perform any analysis, but only the period average plot files are utilized for any cancer risk and chronic HI analyses.

[17] Since variable emission rates were used, separate runs were performed for cancer risks/chronic HI and acute HI analyses. In the cancer risks/chronic HI run, which depends on annual emissions, variable emission rate scalars

HRA_Model_Baseline_Acute.inp	AERMOD Input File, Acute HI run
HRA_Model_Baseline_Acute.out	AERMOD Output File, Acute HI run
ERRORS.LST	AERMOD Error File, Acute HI run
SUMMARYFILE.SUM	AERMOD Summary File, Acute HI run
*.PLT	Period average and 1st high, 1-hr plot files for six point sources and eight fugitive sources (28 total), Acute HI run[18]

2.2.3 AERMAP Files

File Name	File Description
Aermap input file.txt	AERMAP Input File, for Baseline HRA model (all sources, buildings, and receptors)[19]
Aermap output file.txt	AERMAP Output File, for Baseline HRA model (all sources, buildings, and receptors)
Aermap receptor file.txt	AERMAP Receptor File, elevations and hill heights for all receptors
Aermap source file.txt	AERMAP Source File, elevations for all sources and buildings

2.2.4 BPIP PRIME Files

File Name	File Description
Bpip input file.txt	BPIP PRIME Input File
Bpip output file.txt	BPIP PRIME Output File
Bpip summary file.txt	BPIP PRIME Summary File

were adjusted such that the annual emissions sum to 31,536 kg/yr (i.e. the variable emission rate scalars sum to 8760 hours per year). In the acute HI run, which depends on maximum hourly emissions, variable emission rates were entered such that a 1 g/s emission rate was applied when emissions are on and a 0 g/s emission rate was applied when emissions are off (i.e. the variable emission rate scalars sum to the actual hours of operation per year).

[18] Note that both period average and 1st high, 1-hr plot files are required to be imported into HARP2 for the program to perform any analysis, but only the 1st high, 1-hr plot files are utilized for any acute HI analyses.

[19] The sources and buildings required for the reconciliation model are included in this AERMAP run. The receptors for the reconciliation model are in the AERMAP run submitted with the HRA on November 14, 2014.

2.3 RRP

2.3.1 RRP Model, Cancer, Chronic Run[20]

File Name	File Description
RRP_Model_Chronic.inp	AERMOD Input File, Cancer and Chronic HI run
RRP_Model_Chronic.out	AERMOD Output File, Cancer and Chronic HI run
ERRORS.LST	AERMOD Error File, Cancer and Chronic HI run
SUMMARYFILE.SUM	AERMOD Summary File, Cancer and Chronic HI run
*.PLT	Period average and 1st high, 1-hr plot files for seventeen point sources and eight fugitive sources (50 total), Cancer and Chronic HI run[21]

2.3.2 RRP Model, Acute Run[22]

File Name	File Description
RRP_Model_Acute.inp	AERMOD Input File, Acute HI run
RRP_Model_Acute.out	AERMOD Output File, Acute HI run
ERRORS.LST	AERMOD Error File, Acute HI run
SUMMARYFILE.SUM	AERMOD Summary File, Acute HI run

[20] Since variable emission rates were used, separate runs were performed for cancer risks/chronic HI and acute HI analyses. In the cancer risks/chronic HI run, which depends on annual emissions, variable emission rate scalars were adjusted such that the annual emissions sum to 31,536 kg/yr (i.e. the variable emission rate scalars sum to 8760 hours per year). In the acute HI run, which depends on maximum hourly emissions, variable emission rates were entered such that a 1 g/s emission rate was applied when emissions are on and a 0 g/s emission rate was applied when emissions are off (i.e. the variable emission rate scalars sum to the actual hours of operation per year).

[21] Note that both period average and 1st high, 1-hr plot files are required to be imported into HARP2 for the program to perform any analysis, but only the period average plot files are utilized for any cancer risk and chronic HI analyses.

[22] Since variable emission rates were used, separate runs were performed for cancer risks/chronic HI and acute HI analyses. In the cancer risks/chronic HI run, which depends on annual emissions, variable emission rate scalars were adjusted such that the annual emissions sum to 31,536 kg/yr (i.e. the variable emission rate scalars sum to 8760 hours per year). In the acute HI run, which depends on maximum hourly emissions, variable emission rates were entered such that a 1 g/s emission rate was applied when emissions are on and a 0 g/s emission rate was applied when emissions are off (i.e. the variable emission rate scalars sum to the actual hours of operation per year).

*.PLT	Period average and 1st high, 1-hr plot files for seventeen point sources and eight fugitive sources (50 total), Acute HI run[23]

2.3.3 AERMAP Files

File Name	File Description
Aermap input file.txt	AERMAP Input File, for RRP model (all sources, buildings, and receptors)
Aermap output file.txt	AERMAP Output File, for RRP model (all sources, buildings, and receptors)
Aermap receptor file.txt	AERMAP Receptor File, elevations and hill heights for all receptors
Aermap source file.txt	AERMAP Source File, elevations for all sources and buildings

2.3.4 BPIP PRIME Files

File Name	File Description
Bpip input file.txt	BPIP PRIME Input File
Bpip output file.txt	BPIP PRIME Output File
Bpip summary file.txt	BPIP PRIME Summary File

3 HARP2 Files

3.1 Baseline HRA Emissions

File Name	File Description
Baseline_Emissions.CSV	Baseline HRA Emissions Input File for HARP2

3.2 RRP Emissions

File Name	File Description
RRP_Emissions.CSV	RRP Emissions Input File for HARP2 (for Post-Implementation Scenario)

[23] Note that both period average and 1st high, 1-hr plot files are required to be imported into HARP2 for the program to perform any analysis, but only the 1st high, 1-hr plot files are utilized for any acute HI analyses.

APPENDIX D

Responses to Comments Received on the Draft Mitigated Negative Declaration

APPENDIX D

COMMENT LETTERS RECEIVED ON THE DRAFT MND AND RESPONSES TO COMMENTS

INTRODUCTION

The Draft MND was circulated for a 30-day public review and comment period starting November 4, 2015 and ending December 4, 2015.

The SCAQMD received four comment letters (two letters and two emails) on the Draft MND during the public review period from the following commenters.

Comment Letter	Commentator
1	City of Newport Beach
2	Caltrans
3	Bruce Greene, Hixson Metal Finishing (email)
4	Bruce Greene, Hixson Metal Finishing (email)

The comment letters and the responses to the comments are provided in this appendix. The comments are bracketed and numbered. The related responses are identified with the corresponding number and are included following each comment letter.

Comment Letter No. 1

CITY OF NEWPORT BEACH
100 Civic Center Drive
Newport Beach, California 92660
949 644-3200
newportbeachca.gov/communitydevelopment

November 30, 2015

Jillian Wong, Ph.D.
Program Supervisor, CEQA
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178

SUBJECT: Hixson Metal Finishing Risk Reduction Project Mitigated Negative Declaration Comments on Draft Document

Dear Dr. Wong,

Thank you for the opportunity to review the draft Mitigated Negative Declaration (MND) prepared for the Hixson Metal Finishing (Hixson) Risk Reduction Project. Since Hixson is located in the City of Newport Beach (City), the City is extremely concerned that Hixson's operations and proposed Risk Reduction Project complies with all applicable federal, state, and local regulations in order to protect the health and safety of the surrounding community.

The City of Newport Beach will be responsible for reviewing plans, issuing permits, and conduction inspections for all site and building improvements related to the Risk Reduction Project. Therefore the City shall be relying on this MND for determining appropriate environmental compliance in conjunction with future permit approvals.

1-1

Please see the attached list of detailed comments related to the draft MND. Please do not hesitate to contact me should you have any questions.

Sincerely,

Kimberly Brandt, AICP
Director

Attachment A- Comments on Draft MND

cc: Dave Kiff, City Manager
Scott Poster, Fire Chief
Mohsen Nazemi, SCAQMD Engineering and Compliance Officer

ATTACHMENT A

City of Newport Beach Comments on Draft MND

1. Page 1-1 (General Operations) indicates Hixson began operation is 1958; however, Section VIII.d) on Page 2-43 indicates 1962. Please clarify correct date. — 1-2

2. Page 1-12, Table 1-1, Change the Regional Water Quality Control Board to Orange County Region. For the City of Newport Beach permits, include *Fire construction permits* in addition to building, plumbing, and electrical permits. — 1-3

3. Clarify page 1-7, last paragraph, to reflect that electrical work may start during the construction of the facility and not prior as currently stated. — 1-4

4. Throughout the document, there are inconsistencies regarding the address and number of buildings that comprise the facility. For example, on Page 1-1 (General Operations) and Page 1-3 (Project Location), the address is listed as 817-861 Production Place. However, the Overview of Current Operations starting on Page 1-5 states that 6 buildings comprise the facility and list Building 6 with an address of 816 Production Place. Page 2-43, Section VIII.d) states that the facility consists of 5 buildings. — 1-5

   It's recommended that the project description clarify that the facility as a whole operates with 6 buildings (816-861 Production Place), but that no work is proposed within Building 6 as part of this project and that for the purposes of this MND, the project site is defined as the 5 buildings on the south side of Production Place 817-861 Production Place. — 1-6

5. Page 1-10, Section 1.8.4 Local Approvals should note that the building permit will ensure compliance with Newport Beach *Zoning Code* in addition to City's Building Code.

6. Mitigation Measure AE-1 requires the maintenance and construction of 6-foot-high wooden fence-like screens on the Roof of Buildings 2 and 3 to obscure industrial equipment from view of the adjacent second-story apartments. However Building 4 will also include new roof top mechanical equipment and will be required to be screened as well. Please expand the scope of AE-1 to include Building 4, and also note that materials, color, length, location of the roof top will be subject to review and approval by the City. Suggested language is provided in Comment 7.

7. Mitigation Measure N-7 requires the installation of a noise barrier along the south face of the building to reduce noise levels a minimum of 18 dBA associated with the new mechanical equipment to minimize noise impacts to adjacent residents. Based on the analysis in the aesthetics section, the wooden fence would meet this noise reduction; however, other noise attenuating noise barriers may be available and more architecturally compatible with the existing building. In addition, Section 20.30.020.A.2.c of the Newport Beach Zoning Code requires that roof-mounted mechanical equipment screening shall be compatible with the architectural style, materials, and color of the building upon which the equipment is located, and is subject to the approval of the Community Development Department. Based on the artistic rendering of the project after installation (Page 2-7), City recommends that Mitigation Measure AE-1 be revised per the language below to ensure a more architecturally compatible noise attenuating screen wall. — 1-7

AE-1 Buildings 2, 3, and 4 shall provide a solid, sound attenuating screen wall at a minimum height necessary to obscure roof-mounted mechanical equipment from view of the adjacent second-story apartments, as well as provide appropriate noise attenuation. The screen wall shall be textured and painted to be compatible with the architectural style, materials, and color of the building upon which the equipment is located and will be subject to the review and approval of the City of Newport Beach Community Development Department. See also Mitigation Measure N-7. 1-7

8. Page 2-39, paragraph 5. Please modify first sentence to include Fire code reference. "The new and modified equipment at Hixson will require building *and fire* permits, as applicable, for all new structures associated with the proposed project from the City of Newport Beach." 1-8

9. Page 2-49, second paragraph. Please clarify that trenches may be open for extended period and not the few days as currently stated. 1-9

10. Page 2-54, the Significance Criteria for construction noise is incorrect. The City does not have a local significance threshold for construction noise. Pursuant to Section 10.26.035.D, construction noise is exempt from the Community Noise Control Standards. Construction Noise is regulated by Section 10.28.040, which establishes certain hours and days of the week that construction may occur and intended to reduce construction noise impacts to adjacent properties. Please clarify the MND. 1-10

11. Page 2-66 XIV a), second paragraph cites the 2015 California Fire code, it should cite the *2013 California Fire code* version. 1-11

12. Page 2-70. paragraph 1, first sentence. Please note that both Brea and Anaheim receive commercial hazardous waste. 1-12

13. Appendix A, page 2, Tank 100 Removal. Modify the Construction Activities section to read: Once the General Plate department has been reconfigured to its future state, Tank 100 will be removed from service *in accordance with the California Fire and Health and Safety codes.* 1-13

Responses to Comment Letter No. 1

City of Newport Beach
November 30, 2015

Response 1-1

As noted in the Draft MND, the City of Newport Beach has the technical expertise and approval authority in matters regarding plans, permits, and inspections for all site and building improvements related to the Risk Reduction Project. In addition, Table 1-1 in the Draft and Final MND contain a description of applicable federal, state, and local regulations that pertain to the proposed project.

Response 1-2

The date that Hixson began operation has been made consistent in the Final MND.

Response 1-3

This comment has been incorporated into the Final MND.

Response 1-4

This comment has been incorporated into the Final MND.

Response 1-5

The addresses and number of buildings have been made consistent in the Final MND.

Response 1-6

This comment has been incorporated into the Final MND.

Response 1-7

This comment has been incorporated into the Final MND.

Response 1-8

This comment has been incorporated into the Final MND.

Response 1-9

This comment has been incorporated into the Final MND.

Response 1-10

This comment has been incorporated into the Final MND.

Response 1-11

This comment has been incorporated into the Final MND.

Response 1-12

This comment has been incorporated into the Final MND.

Response 1-13

This comment has been incorporated into the Final MND.

Comment Letter No. 2

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 12
3347 MICHELSON DRIVE, SUITE 100
IRVINE, CA 92612-8894
PHONE (949) 724-2000
FAX (949) 724-2019
TTY 711
www.dot.ca.gov

Serious Drought.
Serious drought.
Help save water!

December 2, 2015

Ms. Jillian Wong
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765-4178

File: IGR/CEQA
SCH#: 2015111009
Log #: 4561
SR-1 & SR--55

Dear Ms. Wong:

Thank you for the opportunity to review and comment on the **Notice of Intend to Adopt a Draft Mitigated Negative Declaration for the Hixson Metal Finishing.** Hixson Metal Finishing (Hixson or Facility) is proposing a Risk Reduction Project which would consist of on-site tank, spray booth, and oven relocation; installation of additional air pollution control systems; construction of permanent total enclosures; installation of covers on waste water treatment tanks, preparation and implementation of an improved housekeeping and dust mitigation plan, and improvements to the Facility's electrical system. The Facility currently conducts anodizing, testing, plating, and coating operations for aerospace and defense industries. The analysis of these environmental topic areas in the Draft MND concluded that the proposed project would not generate any significant adverse environmental impacts. The project site is located at 829 Production Place in the City of Newport Beach. The nearest state route to the project site is SR-55.

Caltrans is a commenting agency on this project and has no comment at this time, however, in the event of any activity in Caltrans' right of way an encroachment permit will be required.

Please continue to keep us informed of this project and any future developments that could potentially impact State transportation facilities. If you have any questions or need to contact us, please do not hesitate to call Maryam Molavi at (949) 724-2267.

2-1

Sincerely,

MAUREEN EL HARAKE
Branch Chief, Regional-Community-Transit Planning
District 12

C: Scott Morgan, Office of Planning and Research

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability

Responses to Comment Letter No. 2

California Department of Transportation
December 2, 2015

Response 2-1

The SCAQMD notes that Caltrans has the technical expertise in highway and state route planning issues and that Caltrans has no comment at this time. The proposed project will occur within the boundary of the existing Hixson facility and will not affect any Caltrans' right of way. Therefore, an encroachment permit from Caltrans will not be needed for this project.

Comment Letter No. 3

Jillian Wong

From: Bruce Greene <Bruce.Greene@hmfgroup.com>
Sent: Wednesday, December 2, 2015 3:52 PM
To: Ian MacMillan; Doug Greene
Cc: Amir Dejbakhsh; Jillian Wong; Amantea, Chris M.; Nancy Feldman
Subject: RE: Fish and Wildlife fee

Ian,

Please see below for comments from my review of the MND. I have not yet reviewed the DMP but will do so shortly.

Chapter 1, Section 1.6.2 – this section indicates that 2 of the doors will be replaced with fast acting, self opening and closing roll up doors with one door to remain closed during most operations. In reality the 2 self opening and closing doors will be installed on the outer wall of the building and will cover the existing fixed roll up doors. The other roll up door that is located in the receiving area will be open during normal business hours. 3-1

Chapter1, Section 1.6.3 – This section indicates that the sanding and scuffing booth will be upgraded to ULPA filters. Per the RRP these filters will not be replaced and will remain HEPA filters rated at 99.97% 3-2

Chapter 1, Section 1.6.4 – The section indicates that tank 99 will be removed (or has been removed) from service. This tank will be part of the Etching line (Previous Permit F32060, A/N 339296). 3-3

Chapter 1, Proposed Project Layout – The callout for building 4 indicates that the sanding/scuffing booth will be ULPA filters. This is incorrect the filters will remain HEPA filters and indicated in RRP. 3-4

Chapter 1, Section 1.6.5 (page 1-9, Cleaning procedures) This indicates that all residues will be cleaned up using a HEPA equipped vacuum followed up by damp cloth or wet mop. This is incorrect. All cleaning activities will be conducted with the use of a HEPA equipped vacuum and/or using a wet cloth or wet mopping. 3-5

Chapter 2, Page 2-18, Operational Emission Impacts – This paragraph indicates that an additional 83 deliveries would be required to supply the additional Caustic materials needed to run the scrubbers. This would be handled via the already scheduled deliveries by Miles Chemical. An increase in deliveries if any would be negligible. This is also cited in other section of the document and should be changed 3-6

Chapter 2, Page 2-54 – Production Place is referred to as Production Way on several areas of the document 3-7

Contact me if you have questions

Thanks

Bruce Greene
Environmental/Health & Safety
Hixson Metal Finishing
829 Production Place
Newport Beach, CA 92663
Direct: 949.722.3459
Office: 800.900.9798
www.HMFgroup.com

1

Responses to Comment Letter No. 3

Bruce Greene, Hixson Metal Finishing
December 2, 2015

Response 3-1

This comment has been incorporated into the Final MND.

Response 3-2

Per comment 4-1, no action is required.

Response 3-3

This comment has been incorporated into the Final MND.

Response 3-4

Per comment 4-1, no action is required.

Response 3-5

This comment has been incorporated into the Final MND.

Response 3-6

This comment provides clarification to the expected number of truck trips associated with the delivery of caustic. The analysis presented in the Draft MND is a conservative, "worst-case" analysis and demonstrates that if more deliveries are ultimately required, the environmental impacts would be considered less than significant. Therefore, no changes were made in the Final MND in response to this comment.

Response 3-7

This comment has been incorporated into the Final MND.

Comment Letter No. 4

Jillian Wong

From: Ed Muehlbacher
Sent: Friday, December 4, 2015 4:14 PM
To: Jillian Wong
Cc: Amir Dejbakhsh
Subject: FW: Fish and Wildlife fee

FYI

From: Bruce Greene [mailto:Bruce.Greene@hmfgroup.com]
Sent: Friday, December 4, 2015 3:42 PM
To: Hamed Mandilawi
Subject: FW: Fish and Wildlife fee

Hamed,

As per our phone conversation I am rescinding my comments in regards to the sanding/scuffing booth as related to the ULPA filters. This unit will be upgraded from HEPAs to ULPAs. 4-1

Thanks

Bruce Greene
Environmental/Health & Safety
Hixson Metal Finishing
829 Production Place
Newport Beach, CA 92663
Direct: 949.722.3459
Office: 800.900.9798
www.HMFgroup.com

Supporting Flight Excellence

From: Bruce Greene
Sent: Wednesday, December 02, 2015 3:52 PM
To: 'Ian MacMillan'; Doug Greene
Cc: Amir Dejbakhsh; Jillian Wong; 'Amantea, Chris M.'; 'nfeldman@aqmd.gov'
Subject: RE: Fish and Wildlife fee

Ian,

Please see below for comments from my review of the MND. I have not yet reviewed the DMP but will do so shortly.

Chapter 1, Section 1.6.2 – this section indicates that 2 of the doors will be replaced with fast acting, self opening and closing roll up doors with one door to remain closed during most operations. In reality the 2 self opening and closing doors will be installed on the outer wall of the building and will cover the existing fixed roll up doors. The other roll up door that is located in the receiving area will be open during normal business hours.

Chapter1, Section 1.6.3 – This section indicates that the sanding and scuffing booth will be upgraded to ULPA filters. Per the RRP these filters will not be replaced and will remain HEPA filters rated at 99.97%

1

Responses to Comment Letter No. 4

Bruce Greene, Hixson Metal Finishing
December 4, 2015

Response 4-1

The SCAQMD acknowledges the rescission of comments 3-2 and 3-4.