

APPENDIX C:
Control Techniques Guidelines
Source Category Analysis for
2015 8-hour Ozone NAAQS
Reasonably Available Control
Technology Requirements

TABLE OF CONTENTS

1.0	INTRODUCTION	1-1
1.1	Background	1-1
1.2	Attainment Date	1-2
1.3	Reasonably Available Control Technology Requirements	1-3
2.0	METHODOLOGY	2-1
2.1	Identifying CTG RACT Sources	2-1
2.2	Comparing existing Emission Control Requirements with Presumptive Norms	2-2
3.0	CTG SOURCE CATEGORY REVIEW	3-1
3.1	Surface Coating Operations	3-1
3.1.1	Aerospace Manufacturing and Rework Operations	3-1
3.1.2	Automobiles and Light-Duty Trucks Manufacturing and Rework Operations	3-2
3.1.3	Automobile Refinishing	3-3
3.1.4	Metal Coils	3-4
3.1.5	Fabric	3-4
3.1.6	Flat Wood Paneling	3-5
3.1.7	Large Appliances	3-6
3.1.8	Magnet Wire	3-7
3.1.9	Metal Cans	3-8
3.1.10	Metal Furniture	3-10
3.1.11	Miscellaneous Metal Part and Plastic Coating	3-11
3.1.12	Paper	3-12
3.1.13	Boat and Shipbuilding	3-14
3.1.14	Wood Furniture	3-14
3.2	Solvent Users	3-15
3.2.1	Degreasing Operations	3-15
3.2.2	Large Petroleum Dry Cleaners	3-16
3.2.3	Miscellaneous Industrial Adhesives	3-17
3.2.4	Industrial Cleaning Solvents	3-18
3.2.5	Graphic Arts	3-19
3.3	Chemical Processes	3-20
3.3.1	Pharmaceutical	3-20
3.3.2	Polymers and Resins	3-23
3.3.3	Rubber Tires Manufacturing	3-24
3.3.4	Synthetic Organic Chemical Manufacturing Industry	3-25
3.4	Petroleum Processes	3-27
3.4.1	Cutback Asphalt	3-27
3.4.2	Gasoline Loading Terminals and Bulk Gasoline Plants	3-27
3.4.3	Gasoline Service Stations	3-28
3.4.4	Oil and Natural Gas Industry	3-29
3.4.5	Petroleum Storage – Fixed Roof	3-30
3.4.6	Refinery Operations	3-30
3.5	Summary of Findings	3-31
4.0	REFERENCES	4-1

LIST OF FIGURES

Figure 1. Nonattainment Area (HA 212) in Clark County, Nevada.....	1-1
--	-----

LIST OF TABLES

Table 1. Businesses Potentially Engaged in Aerospace Surface Coating Operations	3-2
Table 2. Vehicle Surface Coating VOC Emissions in the Emissions Inventory	3-3
Table 3. Fabric Surface Coating VOC Emissions in Emissions Inventory	3-5
Table 4. Businesses Potentially Engaged in Flat Wood Paneling Coating Operations	3-6
Table 5. Businesses Potentially Engaged in Large Appliance Coating Operations.....	3-7
Table 6. Businesses Potentially Engaged in Magnet Wire Operations.....	3-8
Table 7. Businesses Potentially Engaged in Metal Cans Surface Coating Operations.....	3-9
Table 9. Businesses Potentially Engaged in Boat and Shipbuilding Surface Coating Operations	3-14
Table 10. Businesses Potentially Engaged in Wood Furniture Operations	3-15
Table 11. Businesses Potentially Operating Pharmaceutical Operations	3-21
Table 12. Businesses Potentially Operating Synthetic Organic Chemical Manufacturing Operations	3-26
Table 13. Summary of CTG RACT Analysis: Certification of No Sources Operating in HA 212 or CTG RACT Rule	3-31

ACRONYMS AND ABBREVIATIONS

Acronyms

ACT	Alternative Control Techniques
The Act	Clean Air Act
AQR	Clark County Air Quality Regulations
BACM	Best Available Control Measures
BCC	Clark County Board of County Commissioners
CRF	Code of Federal Regulations
CTGs	Control Techniques Guidelines
DAQ	Division of Air Quality
DES	Department of Environmental and Sustainability
EPA	United States Environmental Protection Agency
FR	Federal Register
HA	Hydrographic Area
HA 212	Hydrographic Area 212 (Las Vegas Valley)
HAP	Hazardous air pollutants
NAFB	Nellis Air Force Base
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NDEP	Nevada Division of Environmental Protection
NEI	National Emissions Inventory
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO _x	Nitrogen oxide(s)
NSPS	New Source Performance Standards
NSR	New Source Review
PET	Polyethylene terephthalate
PTE	Potential to emit
RACM	Reasonably Available Control Measures
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SCCs	Source Classification Codes
SIP	State Implementation Plan
SOCMI	Synthetic Organic Chemical Manufacturing Industry
TOG	Total organic carbon
TRI	Toxic Release Inventory
VOCs	Volatile organic compounds

Abbreviations

µg	microgram
ft	foot
g	gram
gal	gallon
l	liter
lb	pound
ppm	parts per million
tpd	tons per day
tpy	tons per year

1.0 INTRODUCTION

1.1 BACKGROUND

In 2015, the U.S. Environmental Protection Agency (EPA) revised the 8-hour National Ambient Air Quality Standard (NAAQS) for ozone to 0.070 parts per million (ppm). On June 4, 2018, EPA designated a portion of Clark County (Hydrographic Area (HA) 212) as a nonattainment area for the 2015 8-hour ozone NAAQS based on a design value that exceeded the 0.070 ppm standard (83 FR 25776). HA 212 is in a central location in the county and includes the Las Vegas Valley (Figure 1).

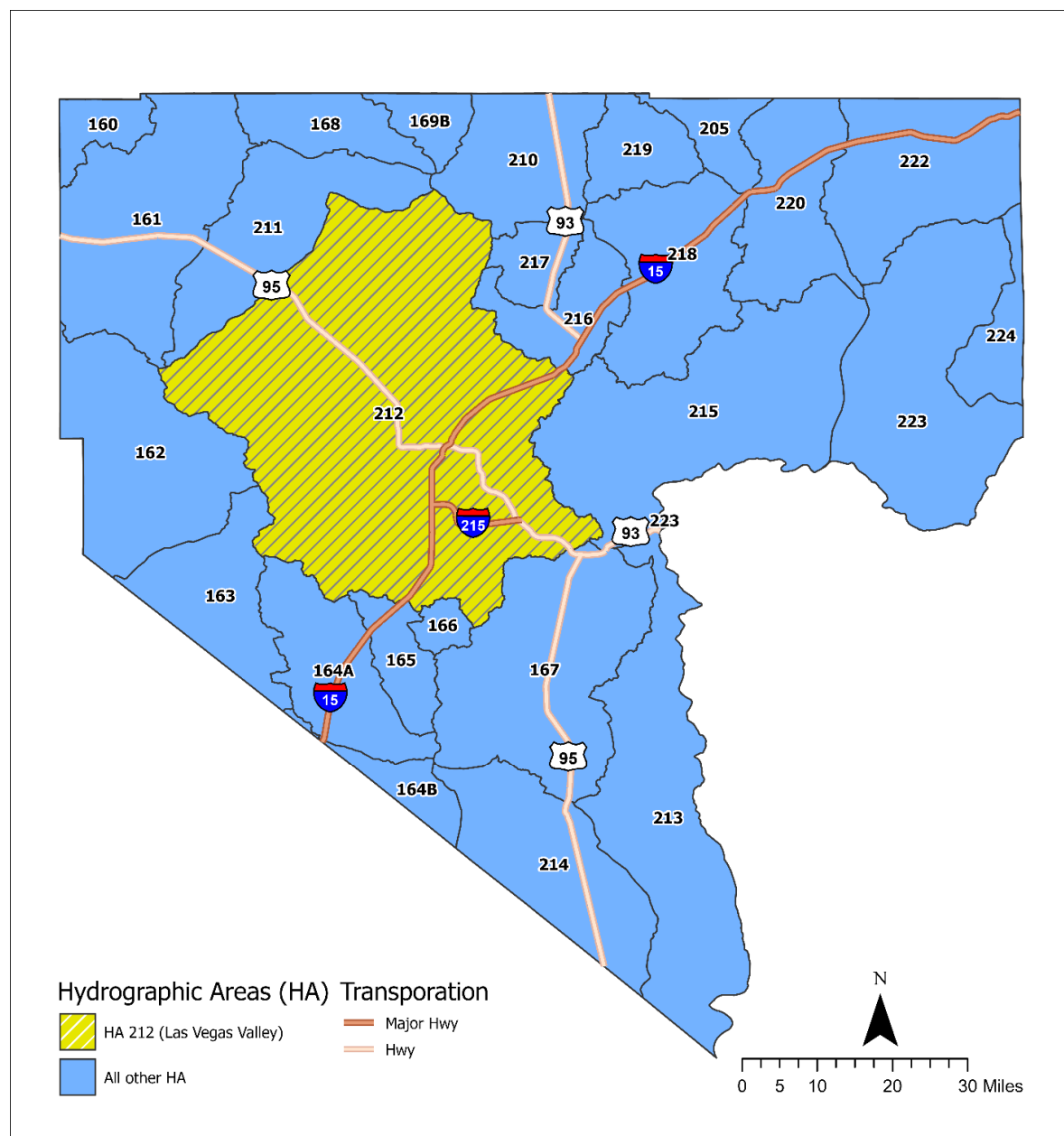


Figure 1. Nonattainment Area (HA 212) in Clark County, Nevada.

This area spans roughly 1,500 square miles, is largely under federal control, and includes the following areas in whole or in part:

- City of Las Vegas
- City of North Las Vegas
- City of Henderson
- Boulder City
- Unincorporated areas of Clark County
- Desert National Wildlife Refuge
- Toiyabe National Forest
- Red Rock Canyon National Conservation Area
- Nellis Air Force Base
- Lake Mead National Recreation Area
- U.S. Bureau of Land Management (BLM) lands.

In 2024, Clark County submitted an attainment plan to address moderate ozone nonattainment area requirements for the 2015 ozone NAAQS. Part of the plan included a Control Techniques Guideline (CTG) analysis, but EPA did not take action because subsequent monitoring showed that HA 212 did not attain the standard by the August 3, 2024, attainment date, resulting in the area's reclassification as "serious" under Section 181(b) of the Clean Air Act (42 U.S.C. 7401 et seq.) (the Act) in January 2025.

CTGs contain source categories for which implementation of Reasonably Available Control Technology (RACT) is required in ozone nonattainment areas classified as "moderate" or above. This appendix presents an analysis of the applicability and implementation of CTG RACT for relevant source categories in HA 212, in fulfillment of CAA obligations applying to serious nonattainment areas under the 2015 8-hour ozone NAAQS.

1.2 ATTAINMENT DATE

The effective date of the nonattainment designation for HA 212 was August 3, 2018. Under EPA's Implementation of the 2015 Ozone National Ambient Air Quality Standard (40 CFR Part 51.1303, Subpart CC), "marginal" nonattainment areas were initially required to attain the NAAQS within three years of designation (i.e., by August 3, 2021). However, because HA 212 did not attain the standard by that date and did not qualify for an extension, EPA reclassified the area to "moderate" in January 2023. After failure to attain the standard by that deadline (August 3, 2024), EPA reclassified HA 212 as a "serious" ozone nonattainment area under Section 181(b)(2) of the Act, effective January 21, 2025 (89 FR 103657).

40 CFR Part 51.1303 establishes an attainment date for serious areas of no later than nine years after the initial nonattainment designation. For HA 212, that date is August 3, 2027.

1.3 REASONABLY AVAILABLE CONTROL TECHNOLOGY REQUIREMENTS

Under Section 182 of the Act, a serious ozone nonattainment area must apply RACT to reduce volatile organic compound (VOC) emissions from each source category for which EPA has issued CTGs. Sections 108 and 183 of the Act direct EPA to issue CTGs to provide air pollution control agencies with information on reducing VOC emissions from specific source categories, including emissions reduction benefits, cost-effectiveness, and the environmental impacts of control technologies. EPA has issued a total of 46 CTG documents, some of which address multiple source categories or update previous guidance.

CTGs provide the presumptive norm for minimum VOC controls for source categories (44 FR 53761), called CTG sources. EPA recommends air pollution control agencies adopt regulations consistent with the applicability thresholds and control levels described in the CTGs, but allows agencies to judge feasibility and adjust controls based on local circumstances (83 FR 62998).

EPA has not issued CTGs for oxides of nitrogen (NO_x) emissions from any source category. Instead, EPA issues Alternative Control Techniques (ACT) documents for some NO_x source categories for use in determining RACT for major sources and for Reasonably Available Control Measures (RACM) requirements under Section 172(c) of the Act. Unlike CTGs, ACTs do not establish a presumptive level of emissions control, but provide information about available controls and their cost-effectiveness. Accordingly, this CTG RACT analysis is limited to CTG-covered source categories and does not address NO_x sources.

EPA codified the RACT SIP requirements for the 2015 ozone NAAQS in its Ozone Implementation Rule (40 CFR Part 51, Subpart CC). Following EPA's reclassification of HA 212 to serious ozone nonattainment, Clark County must, in accordance with this rule, continue to demonstrate compliance with applicable RACT SIP requirements for all source categories covered by CTGs. This document revisits existing CTG RACT determinations from the moderate area ozone attainment plan to ensure they remain current and complete, including reviews of previously submitted negative declarations and identification of any additional CTG source categories that may now be present within the nonattainment area (DES 2024a).

Under EPA's RACT regulations and guidance, an air agency must adopt a CTG RACT rule if a CTG source operates within the nonattainment area. EPA allows state and local air pollution control agencies to adopt appropriate applicability thresholds for each CTG, but provides recommended applicability thresholds in most of the CTGs. EPA generally recognizes VOC emissions of less than 15 lb/day (or approximately 3 tons per year (tpy)) as de minimis for CTG RACT. During the development of the moderate SIP, the Clark County Department of Environmental and Sustainability, Division of Air Quality (DAQ) assumed EPA's recommended applicability thresholds, which generally exclude operations with projected maximum emissions of less than 3 tpy of VOCs; these thresholds were carried over to the serious plan. "Projected maximum emissions" means the highest annual rate (in tpy) at which the stationary source is projected to emit VOCs—based on anticipated production, throughput, heat input, or material utilization rates—that does not include emissions reductions from add-on controls (see definition in Section 101.3 of the Clark County Air Quality Regulations (AQRs)).

If no stationary sources are identified under a specific CTG RACT category, an air agency may provide a negative declaration for that source category. When a stationary source in HA 212 exceeds the CTG RACT applicability threshold, DAQ may determine if existing SIP regulations satisfy the CTG RACT requirement. If no current regulation applies, or if existing regulations do not meet CTG RACT requirements, then DAQ may promulgate CTG RACT rules for that source category or incorporate the applicable stationary source permit provisions into the SIP.

This appendix provides a review of each CTG to determine whether any stationary source in HA 212 falls under the applicable source category. It does not address major source RACT requirements. DAQ identified one new CTG source—Fabric Surface Coating—and developed a corresponding CTG RACT rule: AQR 108, “VOC Emissions Control for Paper, Film, Foil, Fabric, or Vinyl Coating Operations.” However, the new rule will not result in credible emissions reductions for the serious SIP because the sole source did not emit VOCs during the baseline year.

Additionally, DAQ decided to include provisions for the Paper Coating source category in AQR 108. In a previous assessment, DAQ identified one paper coating source and certified it met RACT requirements under AQR 12.1; since both source categories have overlapping requirements, DAQ chose to promulgate a single CTG RACT rule that covered both the Fabric Coating and Paper Coating source categories. DAQ anticipates no additional emissions reductions from this regulation because the source is already meeting emissions control requirements, consistent with AQR 108.

2.0 METHODOLOGY

This section outlines the procedures DAQ used for the serious nonattainment SIP CTG analysis, building on the CTG analysis developed for the 2024 moderate attainment SIP (DES 2024b). That previous analysis is referred to as “the 2024 moderate SIP CTG analysis.”

As part of the 2024 moderate SIP submittal, DAQ conducted a comprehensive evaluation of VOC source categories subject to CTGs and developed corresponding CTG RACT regulations. DAQ subsequently proposed AQRs 101–107, which were approved locally by the Clark County Board of County Commissioners (BCC). On March 7, 2025, the Nevada Division of Environmental Protection (NDEP), on behalf of DAQ, submitted these rules to EPA for inclusion in the SIP. As of this analysis, EPA has not taken final action on the submittals and the rules remain under federal review. As part of the moderate SIP submission, the BCC adopted AQRs 13.3 and 14.2 on September 17, 2024, along with subsequent revisions on February 4, 2025, that included the requirements of 40 CFR Part 60, Subparts XX and XXa (New Source Performance Standards (NSPS) for gasoline terminals) and 40 CFR Part 63, Subpart BBBBBB (National Emission Standards for Hazardous Air Pollutants (NESHAP) for area source gasoline distribution). These regulations satisfy CTG RACT requirements for the Gasoline Loading Terminals and Bulk Gasoline Plants source categories. NDEP submitted the rule revisions to EPA on March 7, 2025, and EPA has not taken final action on them.

Methodological updates for this serious CTG RACT analysis reflect DAQ’s reevaluation of existing CTG RACT determinations, verification of prior negative declarations, and identification of new or additional source categories within HA 212 since the original analysis.

2.1 IDENTIFYING CTG RACT SOURCES

DAQ applied four primary search methods to determine whether any stationary source within a CTG source category operated in HA 212:

1. Reviewing emissions inventory information.
2. Compiling and screening business license databases obtained directly from the municipalities (Las Vegas, North Las Vegas, and Henderson) and, for unincorporated areas, from the Clark County Business License Office.
3. Consulting permitting and enforcement staff and permits issued for minor sources.
4. Performing internet searches using key terms from the source category.

The emissions inventory was scanned for any source categories emitting above the general CTG applicability threshold (DES 2025). If any CTG sources were identified, DAQ undertook a CTG RACT determination.

Business license data from municipal licensing offices (Las Vegas, North Las Vegas, Henderson) and the Clark County Business License Office (for unincorporated areas) were consolidated. Boulder City businesses were not included because only a small portion of the city limits fall

within HA 212, and no businesses are located there. Additional lists of known businesses in typical CTG categories (e.g., dry cleaners, gasoline dispensing, printers) were augmented with information from internet searches. Geospatial screening was performed to determine which listed businesses operated within HA 212. When location confirmation was not available, DAQ assumed those businesses operate within HA 212. All entries were further screened based on business type, name, website, and license details related to CTG source categories.

When CTG sources appeared in the stationary source permitting database, permit data were checked to determine whether emissions fell below relevant CTG applicability thresholds. In some instances, insufficient information on business operations, manufacturing methods, or potential emissions precluded positive identification. Therefore, DAQ decided that inclusion of a business name on a potential CTG source list, if it did not have an active permit, was not enough to determine that a CTG RACT was necessary for a given source category.

2.2 COMPARING EXISTING EMISSION CONTROL REQUIREMENTS WITH PRESUMPTIVE NORMS

For each confirmed CTG source category in HA 212, DAQ:

- Reviewed the relevant CTG for control levels and applicability.
- Examined permits and applicable federal/SIP regulations affecting those sources.
- For CTG categories covered by existing AQRs, DAQ determined whether any new sources had become subject to the rules since the last review. Registered sources below minor thresholds already regulated by the AQRs were not included.

3.0 CTG SOURCE CATEGORY REVIEW

The following sections discuss the results of DAQ's source identification analysis for four main groupings of CTGs: (1) surface coatings, (2) solvent users, (3) petroleum operations, and (4) chemical compounds.

3.1 SURFACE COATING OPERATIONS

3.1.1 Aerospace Manufacturing and Rework Operations

CTG:

- "Control of VOC Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations" (EPA-453/R-97-004; EPA 1997).

SCCs: The following SCCs are associated with this source category:

- 40202401-99: Point Source – Aircraft.
- 2401075000: Nonpoint Source: Surface Coating – Aircraft; Solvent – Industrial Surface Coating and Solvent Use.

Conclusion: DAQ submits a negative declaration for the Aerospace Manufacturing and Rework Operations CTG. HA 212 has no stationary sources that conduct aerospace manufacturing and rework operations with emissions above the recommended CTG RACT applicability level.

Discussion: The Aerospace CTG, issued in 1997, applies to coating operations at sources engaged in the manufacture, rework, or repair of aerospace vehicles and components. The CTG recommends VOC emissions controls for sources with a potential to emit (PTE) of 25 tpy or more in serious nonattainment areas. This CTG covers aerospace vehicles, including airplanes, helicopters, missiles, rockets, and space vehicles, although certain operations are specifically exempted, such as antique vehicles, research and development, laboratory testing, and electronic parts and assemblies.

The Clark County emissions inventory contains nonpoint sources associated with surface coating of aircraft (0.0003 tons per day (tpd) in 2017 and 0.0003 tpd in 2026); however, the emissions of nonpoint sources are far below the RACT applicability threshold.

Nellis Air Force Base (NAFB) (Source ID: 114) operates aerospace parts coating operations, but a recent permit revision reduced total emissions from all surface coating activities there to 17.13 tpy VOC, well below the 25 tpy CTG RACT applicability threshold. NAFB operates five spray operations for aerospace parts coating, and their collective PTE is less than 20 tpy VOC. NAFB is not subject to this CTG RACT because its PTE is below the applicability threshold.

During business license and geospatial screening, DAQ identified 13 businesses (including one possible second location) whose names or business descriptions suggested potential aerospace coating activity within HA 212 (Table 1).

Table 1. Businesses Potentially Engaged in Aerospace Surface Coating Operations

Name	Address	City	ZIP Code
Aerospace Facilities Group	4080 Paradise Road	Las Vegas	89119
Aerospace Machine & Supply	2937 N Lamb Blvd.	Las Vegas	89115
AMW Precision	4120 W Windmill Ln #101	Las Vegas	89139
Apex Aviation	1410 Jet Stream Drive #100	Henderson	89052
Aurelia Aerospace	6185 S Pecos Road	Las Vegas	89120
Bigelow Aerospace	1899 W. Brooks Ave.	North Las Vegas	89032
Cardinal Paint and Powder	1900 Aerojet Way	North Las Vegas	89030
CB Manufacturing Company	6500 W Sunset Road	Las Vegas	89118
Dolphin Machine	2939 Brookspark Dr.	North Las Vegas	89030
Dolphin Machine	15 W Brooks Ave.	North Las Vegas	89030
Nevada Thermal Spray Technologies	4842 Judson Ave. Ste. 115	Las Vegas	89115
Progressive Alloy Steels Unlimited	6335 N Hollywood Blvd. #130-135	North Las Vegas	89115
Spacecraft Components Corp	3040 Clayton St.	North Las Vegas	89032
Textron Aviation	4511 W Cheyenne Ave.	North Las Vegas	89032
Vegas Metal Finishing	55 W Mayflower Ave.	North Las Vegas	89030

A review of the DAQ database revealed that only Cardinal Paint and Powder (Source ID: 17990), which manufactures coatings, holds an active permit with PTE below 10 tpy and that none of the other identified businesses hold an active stationary source permit.¹ AQR 12.1 sets the minor source permitting threshold for VOCs at 5 tpy, so DAQ can assume that each business without an active permit has a VOC PTE below the Aerospace CTG applicability threshold of 25 tpy and would not be subject to CTG RACT.

3.1.2 Automobiles and Light-Duty Trucks Manufacturing and Rework Operations

CTGs:

- “Control of Volatile Organic Emissions from Existing Stationary Sources – Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks” (EPA 1977d).
- “Control Techniques Guidelines for Automobiles and Light-Duty Trucks Assembly Coatings” (EPA 453/R-08-006, 2008/09; EPA 2008a).

SCCs:

- 40201601-32: Point Source: Surface Coating – Auto & Light Trucks.
- 40201699: Point Source: Surface Coating – Auto & Light Trucks, Not Otherwise Classified.

Conclusion: DAQ submits a negative declaration for the CTGs addressing automobile and light-duty truck manufacturing and surface coating. There are no stationary sources in HA 212 that conduct assembly line manufacturing or surface coating operations for new automobiles or light-

¹ 40 CFR Part 70.2 defines a Part 70 permit as: “any permit or group of permits covering a part 70 source that is issued, renewed, amended, or revised pursuant to this part.”

duty trucks (i.e., passenger vehicles with capacities of 12 or fewer or trucks rated at 8,500 lbs or less) that would trigger the CTG RACT requirements based on recommended levels.

Discussion: Both CTGs require VOC emissions controls for surface coating operations at sources manufacturing new automobiles and light-duty trucks. The second issued CTG for assembly coatings addresses sources emitting at least 15 lb/day VOC before controls. These CTGs do not cover autobody shops, rework sources, customizers, and other operations that do not assemble new vehicles.

DAQ reviewed the emissions inventory and found five point sources reporting emissions under related SCCs (Table 2).

Table 2. Vehicle Surface Coating VOC Emissions in the Emissions Inventory

Name	Source ID	Description	SCCs	2017 Summer Weekday (tpd)	2026 Summer Weekday (tpd)
Las Vegas Valley Water District	836	Spray booth	40201601	NA ¹	0.001
Manheim Nevada	15839	Paint booth	40201601	0.0121	0.0023
Republic Services Transfer Station	1087	Spray painting booths	40201601	0.0132	0.0136
Ritchie Brothers	16172	Paint booth	40201601	0.0026	NA
Shelby American	17347	Spray booth	40201606	0.0042	0.0177

¹ Indicates sources that did not have entries within the emissions inventory.

However, none of these sources engage in new vehicle assembly. Republic Services conducts rework painting; Manheim Nevada and Ritchie Brothers provide touch-up paint as part of auto auctions; and Shelby American modifies already-manufactured vehicles. The Las Vegas Valley Water District operates a drinking water treatment and distribution facility that also includes a spray booth for automotive repair and maintenance. Reported emissions for these sources are not from new vehicle assembly operations, and are covered under the CTG for miscellaneous metal and plastic parts coating. A review of business licenses yielded no additional sources engaged in new vehicle manufacturing.

Based on a review of emissions inventories, permit records, and business licenses, DAQ confirms that no stationary sources in HA 212 are subject to the Automobile and Light-Duty Truck Assembly CTG. Therefore, a negative declaration is submitted for these source categories.

3.1.3 Automobile Refinishing

CTG:

- “Reduction of Volatile Organic Compound Emissions from Automobile Refinishing” (Auto Refinishing CTG) (EPA-450/3-88-009; EPA 1988).

Conclusion: No CTG RACT rule is necessary for this source category because (1) EPA did not establish a presumptive RACT for this source category in a CTG, and (2) EPA’s federal rule for auto refinishing coating manufacturers (40 CFR Part 59, Subpart B) supersedes this source category’s requirement for CTG RACT.

Discussion: EPA published the auto refinishing CTG in 1988 to provide technical information on available techniques for reducing emissions through use of material replacement, higher-transfer-efficiency spray guns, and add-on emissions controls. Unlike other CTGs, in which EPA makes specific recommendations for RACT control levels, this CTG provides only an overview of potential emission reduction strategies for air pollution control agencies to consider in developing industry regulations. EPA promulgated its own federal rule to regulate this industry, so no CTG RACT rule is required.

3.1.4 Metal Coils

CTG:

- “Control of Volatile Organic Emissions from Existing Stationary Sources—Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks” (EPA-450/2-77-008; EPA 1977d).

SCCs:

- 2401045000–2401045370: Nonpoint Source—Solvent: Industrial Surface Coating and Solvent Use; Metal Coil.
- 40201803–40201899: Point Source—Solvent: Industrial Surface Coating—Metal Cans and Coils.

Conclusion: DAQ submits a negative declaration for the Metal Coil Surface Coating CTG, as there are no stationary sources in HA 212 engaged in metal coil surface coating operations.

Discussion: EPA (1977d) includes recommendations for controlling VOC emissions from metal coil surface coating, defined as the coating of a flat metal sheet or strip that comes in rolls or coils. The CTG establishes baseline controls; in 1982, EPA further promulgated NSPS addressing VOC emissions from this sector (40 CFR Part 60, Subpart TT).

A review of the most recent emissions inventory for Clark County, along with internet and business license database searches, revealed no businesses engaged in metal coil surface coating operations within HA 212. No stationary sources were identified that match the SCCs or operational profiles for metal coil surface coating. Since there are no metal coil surface coating sources in HA 212, DAQ submits a negative declaration for this source category.

3.1.5 Fabric

CTG:

- “Control of Volatile Organic Emissions from Existing Stationary Sources—Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks” (EPA-450/2-77-008, 1977; EPA 1977d).

SCCs:

- 2401010000–10999: Nonpoint Source: Surface Coating Fabric.
- 40201101–199: Point Source: Surface Coating Fabric.

Conclusion: DAQ will promulgate AQR 108, “VOC Emissions Control for Paper, Film, Foil, Fabric or Vinyl Coating Operations,” which is a CTG RACT rule covering fabric surface coating operations, because there is at least one such stationary source within HA 212. The rule will be brought before the BCC for approval on June 2, 2026.

Discussion: As covered by this CTG, fabric surface coating includes sources that apply protective, waterproof, or decorative coatings to fabric, but does not include vinyl plastisol applications, such as those used in screen printing. EPA (2007c) does not explicitly specify a major source applicability threshold for fabric coating; however, CTGs commonly employ a threshold of 15 lb/day VOC emissions for coatings, a value consistent with coating categories and a CTG later issued for the Paper, Film, and Foil Coatings source category.

A review of the nonpoint source emissions inventory for Clark County revealed one new fabric surface coating source, Mako Advance Materials (Source ID: 18284), which received a permit in 2025. Mako is classified under Standard Industrial Classification (SIC) 2295, “Coated Fabrics, Not Rubberized,” and North American Industry Classification System (NAICS) code 313320, “Fabric Coating Mills.” It has a PTE of 3.91 tpy VOC (controlled). This exceeds the CTG applicability threshold, making the source part of the CTG RACT source category. Two point sources were reported under relevant SCCs (Table 3); however, both emit well below 15 lb/day (0.0075 tpd) and do not meet the operational profile for typical fabric surface coating operations.

Table 3. Fabric Surface Coating VOC Emissions in Emissions Inventory

Name	Source ID	Description	SCC	2017 Summer Weekday (tpd)	2026 Summer Weekday (tpd)
McCarran (Harry Reid) Int'l Airport	108	Paint booth	40201101	0.0005	0.0000
MGM Grand/New York New York	825	Paint booth	40201101	0.0046	0.0026

DAQ will promulgate AQR 108 to address the newly permitted source. Because this source is not yet operational, so not included in the current emissions inventory, and the other identified sources fall below the control applicability threshold, no additional emissions reductions are anticipated from this new regulation.

3.1.6 Flat Wood Paneling

CTGs:

- “Control of Volatile Organic Emissions from Existing Stationary Sources—Volume VII: Factory Surface Coating of Flat Wood Paneling” (Flat Wood Paneling CTG 1) (EPA-450/2-78-032, 1978/06; EPA 1978d).
- “Control Techniques Guidelines for Flat Wood Paneling Coatings” (Flat Wood Paneling CTG 2) (EPA-453/R-06-004, 2006/09; EPA 2006a).

SCCs:

- 2401015000: Nonpoint Source: Factory Finished Wood – All Solvent Types.
- 40202101–99: Point Source: Coatings, Solvents, and Adhesives Flatwood Products.

Conclusion: DAQ submits a negative declaration for the Flat Wood Paneling Coatings CTGs. There are no stationary sources in HA 212 engaged in flat wood paneling coating operations that emit above recommended CTG RACT applicability levels.

Discussion: Both CTGs address VOC control requirements for flat wood paneling coating operations, including decorative wall panels, hardwood plywood, printed interior panels, and tileboard. An emissions inventory review reveals only nonpoint source emissions for SCC 2401015000, with estimated weekday emissions of 0.0075 tpd for 2017 and 0.0088 tpd for 2026. No point sources are reported under flat wood paneling coating SCCs.

DAQ identified seven businesses, including one possible duplicate location, whose names or descriptions suggested a potential connection to flat wood paneling coatings or similar product lines (Table 4).

Table 4. Businesses Potentially Engaged in Flat Wood Paneling Coating Operations

Name	Address	City	ZIP Code
L&W Supply	1818 Losee Road	North Las Vegas	89030
Next Phase Ventures Corp	4550 Donovan Way Ste. 102	North Las Vegas	89031
Panda Windows & Doors Ops	3415 Bellington Road	North Las Vegas	89030
Royal Plywood	6650 Spencer St.	Las Vegas	89119
Solar Screen Factory	3560 Polaris Ave. #41	Las Vegas	89103
The Door Shop LLC	2750 W Brooks Ave. #113	North Las Vegas	89031
Woodstock Architectural Prod	5070 W Patrick Ln.	Las Vegas	89118

A review of the DAQ database revealed that none of the identified sources holds an active stationary source air permit. DAQ considers emissions for identified nonpoint sources to be de minimis, and therefore substantially below recommended levels for triggering CTG RACT applicability.

Based on a review of emissions inventories, permit records, and business licenses, DAQ concludes that no HA 212 sources are part of the Flat Wood Paneling Coatings CTGs source category. Therefore, DAQ submits a negative declaration for this source category.

3.1.7 Large Appliances

CTGs:

- “Control of Volatile Organic Emissions from Existing Stationary Sources—Volume V: Surface Coating of Large Appliances” (Large Appliance CTG 1) (EPA-450/2-77-034, 1977/12; EPA 1977g).
- “Control Techniques Guidelines for Large Appliance Coatings” (Large Appliance CTG 2) (EPA 453/R-07-004, 2007/12; EPA 2007a).

SCCs:

- 40201402–499: Point Source – Large Appliances – Surface Coating.
- 2401060000: Nonpoint Source – Large Appliances – All Solvent Types.

Conclusion: DAQ submits a negative declaration for the Large Appliance Coating CTGs. There are no stationary sources in HA 212 engaged in large appliance coating operations that emit above the recommended CTG RACT applicability level.

Discussion: The Large Appliance Coating CTGs address VOC emission controls for surface coating operations on such large appliances as household ranges, refrigerators, dishwashers, washers, dryers, and water heaters. A review of the Clark County emissions inventory revealed no reported point or nonpoint source emissions under the applicable SCCs.

DAQ identified four businesses via online and business license searches that could, based on name or business description, engage in large appliance manufacturing or service (Table 5).

Table 5. Businesses Potentially Engaged in Large Appliance Coating Operations

Name	Address	City	ZIP Code
American Range Manufacturing Inc	4580 N Walnut Road	Las Vegas	89081
Char Products LLC	2915 Losee Road #106	North Las Vegas	89030
Las Vegas Sub-Zero Refrigeration	4440 Arville St. Ste. 5	Las Vegas	89103
Leaf Home Water Solutions	7110 Placid St.	Las Vegas	89119

A review of the DAQ database revealed that none of the identified sources holds an active stationary source air permit, and no source is known to conduct operations at levels approaching the recommended CTG RACT thresholds. Emissions from any potentially engaged businesses are therefore presumed to be de minimis.

Based on a review of emissions inventories, permit records, and business licenses, DAQ confirms that there are no HA 212 sources belonging to the Large Appliance Coating CTGs source category. Therefore, DAQ submits a negative declaration for this source category.

3.1.8 Magnet Wire

CTG:

- “Control of Volatile Organic Emissions from Existing Stationary Sources – Volume IV: Surface Coating of Insulation of Magnet Wire” (EPA-450/2-77-033, 1977/12; EPA 1977f).

SCCs:

- 40201501: Point Source – Magnet Wire – Curing.
- 40201502: Point Source – Magnet Wire – Cleaning.
- 40201503: Point Source – Magnet Wire – Mixing.
- 40201504: Point Source – Magnet Wire – Storage.
- 40201505: Point Source – Magnet Wire – Cleanup.
- 40201531: Point Source – Magnet Wire – General.
- 40201599: Point Source – Magnet Wire – Not Otherwise Classified.

Conclusion: DAQ submits a negative declaration for the Surface Coating of Magnet Wire CTG. There are no stationary sources in HA 212 engaged in the surface coating of magnet wire that emit above the recommended CTG RACT applicability level.

Discussion: The CTG for this category covers VOC emissions from the insulation surface coating of magnet wire, typically associated with electrical wiring and related industrial operations. A review of the Clark County emissions inventory identified one nonpoint source, GE Transport (Source ID: 16300), classified under SCC 40201501, reporting weekday emissions of 0.0028 tpd for 2017 and 0.0092 tpd for 2026. The reported VOC emissions are from parts washer operations, not from surface coating of magnet wire. In the 2024 moderate SIP CTG analysis, DAQ confirmed with the source that its operations do not fall under this category. DAQ concludes that this stationary source operation does not fall under the CTG source category.

This CTG does not establish a specific applicability threshold. DAQ has determined that a threshold of 15 lb/day VOC is reasonable for this category, consistent with the applicability thresholds used in other surface coating CTGs and adopted by other jurisdictions for similar operations (e.g., Massachusetts 310 CMR 7.18).

DAQ identified six businesses via online and business license searches that could potentially operate in this industry (Table 6).

Table 6. Businesses Potentially Engaged in Magnet Wire Operations

Name	Address	City	ZIP Code
Fiber-Tech Lifting Products	8740 S Jones Blvd.	Las Vegas	89139
Fi Car Audio, LLC	4535 W Russell Road Ste. 1	Las Vegas	89118
Knextec	6570 Spencer St. Ste. 120	Las Vegas	89119
NAS Electronics	1850 Whitney Mesa Dr.	Henderson	89014
Priority Wire and Cable	4025 E Cheyenne Ave. Unit 100	Las Vegas	89115
Silver State Wire Rope and Rigging	8740 S Jones Blvd.	Las Vegas	89139

A review of the DAQ database revealed that none of the identified sources hold an active stationary source air permit, and DAQ considers emissions for the relevant activities to be de minimis.

Based on a review of emissions inventories, permit records, and business licenses, DAQ concludes that there are no sources in HA 212 belonging to the Surface Coating of Magnet Wire CTG source category. Therefore, DAQ submits a negative declaration for this source category.

3.1.9 Metal Cans

CTG:

- “Control of Volatile Organic Emissions from Existing Stationary Sources—Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks” (multicategory CTG) (EPA-450/2-77-008, 1977; EPA 1977d).

SCCs:

- 40201702–1799: Point Source – Surface Coating Metal Cans.
- 402017–36 & 37: Point Source – End Sealing Compound.
- 40201802–40201899: Point Source – Solvent, Industrial Surface Coating: Metal Cans.
- 2401040000: Surface Coating: Metal Cans.

Conclusion: DAQ submits a negative declaration for the Metal Can Surface Coating CTG.

There are no stationary sources in HA 212 engaged in metal can surface coating operations that emit above the recommended CTG RACT applicability level.

Discussion: This CTG provides VOC control guidance for sources engaged in the surface coating of metal cans, including the application of end sealing compounds. A review of the Clark County emissions inventory revealed no point or nonpoint sources reporting under the SCCs associated with metal can surface coating operations.

DAQ identified 12 businesses via online searches and business license records whose names or descriptions suggest they might engage in metal can surface coating operations (Table 7).

Table 7. Businesses Potentially Engaged in Metal Cans Surface Coating Operations

Name	Address	City	ZIP Code
Breakthru Beverage Group	1849 W Cheyenne Ave.	Las Vegas	89102
Crown Cork & Seal	1775 W Pioneer Blvd.	Mesquite	89034
Crystal Peaks, Inc.	1300 N Las Vegas Blvd.	Las Vegas	89101
Graham Packaging PET Tech.	875 American Pacific Dr.	Henderson	89014
Mr Alkaline Water	1263 E Silverado Ranch Blvd. #109	Las Vegas	89183
Niagra Bottling	6445 E El Campo Grande Ave.	Las Vegas	89115
Pepsi Las Vegas	6500 W Sunset Road	Las Vegas	89118
Premium Waters Inc	3355 N Lamb Blvd.	Las Vegas	89115
Purified Water To Go	4155 S Buffalo Dr. #107	Las Vegas	89147
Reyes Coca-Cola Bottling LLC	230 N Mojave Road	Las Vegas	89101
Western Group Packaging	333 E Gowan Road	N Las Vegas	89030
Wildpack Beverage	4751 Vandenberg Dr.	North Las Vegas	89081

A review of the DAQ database revealed that none of the identified sources holds an active stationary source air permit, and no emissions were reported for any operations matching the SCCs for this source category. DAQ assumes any emissions from relevant activities are de minimis.

Based on a review of emissions inventories, permit records, and business licenses, DAQ confirms no HA 212 sources are part of the Metal Can Surface Coating CTG source category. Therefore, DAQ submits a negative declaration for this source category.

3.1.10 Metal Furniture

CTGs:

- “Control of Volatile Organic Emissions from Existing Stationary Sources–Volume III: Surface Coating of Metal Furniture” (Metal Furniture CTG 1) (EPA-450/2-77-032, 1977/12; EPA 1977e).
- “Control Techniques Guidelines for Metal Furniture Coatings” (Metal Furniture CTG 2) (EPA 453/R-07-005, 2007/09; EPA 2007b).

SCCs:

- 40202001–40202099: Point Source – Metal Furniture.
- 2401025000: Nonpoint Source – Metal Furniture.

Conclusion: DAQ submits a negative declaration for the Metal Furniture Surface Coating CTGs. There are no stationary sources in HA 212 engaged in metal furniture surface coating operations that emit above the recommended CTG RACT applicability level.

Discussion: These CTGs address VOC emission controls for metal furniture surface coating operations. A review of the Clark County emissions inventory indicates no point sources in the metal furniture surface coating codes; however, nonpoint source emissions for SCC 2401025000 were reported as 0.1522 tpd for 2017 and 0.1269 tpd for 2026.

DAQ identified five businesses via online research and business license records that may be involved in metal furniture manufacturing (Table 8).

Table 8. Businesses Potentially Engaged in Metal Furniture Surface Coating Operations

Name	Address	City	ZIP Code
Black Knight Studio	—	—	—
Fabrication Syndicate	3855 East Patrick Lane, Ste. 105	Las Vegas	89120
Las Vegas Custom Furniture Makers	1547 W Oakey Blvd.	Las Vegas	89102
Las Vegas Iron and Steel	2959 N Ringe Ln.	Las Vegas	89156
Urban Wood & Steelworx	6185 Harrison Dr. Ste. 10	Las Vegas	89120

A review of the DAQ database revealed that none of the identified sources holds an active stationary source air permit. DAQ presumes emissions from potential business activities are de minimis because they are well below CTG applicability thresholds.

EPA calculates the nonpoint source emissions for this category with projected data based on national sales distributed locally using employment data for relevant NAICS codes (337124, 337127, 337214, 33215), rather than population growth projections (EPA 2021). The NAICS/SIC crosswalk shows these codes cover industries associated with SIC major industry groups 25, 34, 39, and 38, which are considered to be under the Miscellaneous Metal Part and Plastic Coating CTG RACT rule. Since no active metal furniture operations were identified in HA 212, DAQ concludes that the reported nonpoint emissions likely reflect use of coating materials for miscellaneous metal and plastic parts, not actual metal furniture manufacturing.

Based on a review of emissions inventories, permit records, and business licenses, DAQ concludes there are no sources in HA 212 belonging to the Metal Furniture Surface Coating CTGs source categories. Therefore, DAQ submits a negative declaration for this source category.

3.1.11 Miscellaneous Metal Part and Plastic Coating

CTGs:

- “Control of Volatile Organic Emissions from Existing Stationary Sources—Volume VI: Surface Coating of Miscellaneous Metal Parts and Products” (Metal and Plastic Parts CTG 1) (EPA-450/2-78-015, 1978/06; EPA 1978d).
- “Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings” (Metal and Plastic Parts CTG 2) (EPA 453/R-08-003, 2008/09; EPA 2008d).

SCCs:

- 40202201: Point Source: Surface Coating – Plastic Parts.
- 40202501–04: Point Source: Surface Coating Operation – Misc. Metal Parts.
- 40202532: Point Source: Surface Coating – Conveyor – Single Dip.
- 40202531: Point Source: Surface Coating – Conveyor – Single Flow.
- 40202535: Point Source: Surface Coating – Conveyor – Two Coat.
- 40202533: Point Source: Surface Coating – Conveyor – Single Spray.
- 40202434: Point Source: Surface Coating – Conveyor – Two Coat Flow and Spray.
- 40202436: Point Source: Surface Coating – Conveyor – Two Coat Spray.
- 40202505: Point Source: Surface Coating – Equipment Cleanup.
- 40202437: Point Source: Surface Coating – Manual Spray and Air Dry.
- 40202599: Point Source: Surface Coating – Other – Not Classified.
- 40202510–12: Point Source: Surface Coating – Prime Coat.
- 40202542–46: Point Source: Surface Coating – Single Coat Application.
- 40202521–25: Point Source: Surface Coating – Topcoat Application.
- 30303951: Point Source: Metallurgy Parts – Coatings to Sintered Parts.
- 30303901–2: Point Source: Metallurgy Parts – Ovens.
- 30901600–99: Point Source: Metal Pipe Coating of Metal Parts.
- 30900301–04: Point Source: Abrasive Cleaning of Metal Parts.
- 30901102–99: Point Source: Conversion Coating of Metal Products.
- 2401025000: Nonpoint Source: Metal Furniture.
- 2401065000: Nonpoint Source: Electronic and Electrical: SIC 36-363.
- 2401090000: Nonpoint Source: Surface Coating: Misc. Manufacturing: SIC 33-39.

- 2401055000: Nonpoint Source: Machinery and Equipment: SIC 35.
- 2401070000: Nonpoint Source: Motor Vehicles: SIC 371.
- 2401075000: Nonpoint Source: Aircraft: SIC 372.

Conclusion: DAQ certifies that existing provisions in AQR 103, “VOC Emissions Control for Miscellaneous Metal or Plastic Parts Coating Operations,” adopted locally and submitted by NDEP to EPA, meet the CTG RACT requirements for the Miscellaneous Metal and Plastic Parts source category.

Discussion: EPA first issued guidance for this category in 1978 (EPA-450/2-78-015; EPA 1978c), then updated the CTG for controlling VOC emissions from surface coating of miscellaneous metal parts and plastic products in 2008 (EPA 453/R-08-003; EPA 2008d). Additional federal requirements and guidance include the NSPS (40 CFR Part 60, Subpart TTT), an ACT document (EPA-453/R-94-017; EPA 1994), and two NESHAPs: 40 CFR Part 63, Subpart MMMM (on metal parts and products) and 40 CFR Part 63, Subpart PPPP (on plastic parts and products).

The 2008 CTG applies to manufacturers of miscellaneous metal and plastic parts with annual VOC emissions exceeding 3 tpy from the use of paints, sealants, caulks, inks, and maskants. Regulated sources include, but are not limited to, those producing fabricated metal products, molded plastic parts, agricultural and commercial machinery, automotive or transportation equipment and accessories, interior/exterior automotive and recreational vehicle parts, pleasure craft, extruded aluminum components, railroad cars, heavier vehicles, laboratory and medical equipment, electronic equipment, steel drums, metal pipes, and business machines.

The CTG does not apply to stationary sources already subject to another CTG, such as architectural coatings, automobile refinishing, fiberglass boats, and industrial adhesives. However, the CTG does cover some operations—including motor vehicle cavity wax, underbody coatings, trunk interior coatings, and bedliners—if they are conducted at nonassembly sources. As part of the 2024 moderate nonattainment area SIP CTG analysis, DAQ identified sources within HA 212 belonging to this CTG source category. Based on that evaluation, DAQ proposed AQR 103. The BCC adopted the rule locally on February 4, 2025, consistent with the requirements of EPA’s Miscellaneous Metal and Plastic Parts CTG. DAQ reviewed the current emissions inventory and confirmed that no additional sources have become subject to the CTG since the previous evaluation.

AQR 103 is effective locally and has been submitted to EPA for final action and inclusion in the SIP. It applies to stationary sources within HA 212 with projected maximum VOC emissions equal to or greater than 3.0 tpy from miscellaneous metal or plastic parts coating operations.

3.1.12 Paper

CTGs:

- “Control of Volatile Organic Emissions from Existing Stationary Sources—Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks” (Paper Coating CTG 1) (EPA 1977d).

- “Paper, Film, and Foil Coatings” (Paper Coating CTG 2) (EPA 453/R-07-003, 2007/09; EPA 2007c).

SCCs:

- 240103000–999: Nonpoint Source – Surface Coating: Paper, Foil, and Film.
- 40201399: Point Source – Surface Coating: Paper.

Conclusion: DAQ will promulgate AQR 108, “VOC Emissions Control for Paper, Film, Foil, Fabric or Vinyl Coating Operations,” a CTG RACT rule to address paper coating operations, since there is at least one stationary source with paper coating activities within HA 212. The rule will go before the BCC for approval on June 2, 2026.

Discussion: EPA first published a CTG for VOC emissions from paper surface coating in 1977. In 2007, EPA updated its guidance to include paper, film, and foil coating operations. Additional federal requirements for this source category include NSPS (40 CFR Part 60, Subpart RR) and NESHAP (40 CFR Part 60, Subpart JJJ).

Paper Coating CTG 2 defines “coating” as materials applied onto or impregnated into a substrate for decorative, protective, or functional purposes, and is applicable to individual coating lines that exceed a VOC PTE threshold of 25 tpy.

The Clark County emissions inventory includes only de minimis nonpoint source emissions for paper, film, and foil coatings. There is, however, one regulated point source: Catalina Plastic and Coating, now operating as Nekoosa Coated Products, Inc. (Source ID: 00323). According to business listings and permit data, this source manufactures pressure-sensitive materials (including vinyls, polyesters, acetates, and metalized films) for the printing and window film industry, operating under SIC code 3861. Source emissions are 0.0305 tpd for 2017 and 0.0159 tpd for 2026. The source has a VOC PTE of 29.11 tpy, placing it within the regulatory applicability of the Paper, Film, and Foil Coatings CTG.

The presumptive RACT for the Paper Coating CTG 1 is 2.9 lb VOC/gal of coating. The presumptive RACT for the Paper Coating CTG 2 suggests a 90% VOC control efficiency, or 0.08 lb VOC/lb of coating for paper, film, and foil coatings (not including pressure-sensitive tape and label coating), and 0.067 lb VOC/lb of coating for paper, film, and foil with pressure-sensitive tape and label surface coating. Nekoosa is subject to an emissions limitation in its minor New Source Review (NSR) permit that requires the source to limit its VOC-containing products to 2,667,900 lb/yr based on a weighted average VOC content of 0.014 lb VOC/lb of product. This weighted-average emissions limitation is below presumptive RACT levels, and DAQ previously certified that the CTG source meets RACT via the SIP-approved AQR 12.1.3.6(b) & (c) and via AQR 12.1.4.1(f) RACT requirements.

For the serious attainment plan, DAQ elects to promulgate AQR 108, which applies to CTG sources in paper coating and fabric operations (Section 1.6 of this appendix) source categories. The one identified source within the paper coating category already operates with controls that satisfy RACT requirements; therefore, no additional emissions reductions are anticipated from implementation of this rule.

3.1.13 Boat and Shipbuilding

CTGs:

- “Control Techniques Guidelines for Shipbuilding and Ship Repair Operations” (Shipbuilding CTG) (61 FR 44050).
- “Control Techniques Guidelines for Fiberglass Boat Manufacturing Materials” (Boat CTG) (EPA 453/R-08-004, 2008/09; EPA 2008b).

SCCs:

- 40202302–399: Point Source – Large Ships Surface Coating.
- 31401500–599: Point Source – Boat Manufacturing.

Conclusion: DAQ submits a negative declaration for the Boat and Shipbuilding CTGs. There are no stationary sources in HA 212 engaged in shipbuilding, ship repair, or fiberglass boat manufacturing surface coating operations that emit above the recommended CTG RACT applicability level.

Discussion: CTGs address VOC emission controls for both shipbuilding/repair operations and fiberglass boat manufacturing. A review of the Clark County emissions inventory revealed no reported sources under the relevant SCCs for either boat or ship surface coating operations. DAQ identified two businesses via online and business license searches that may be involved in marine manufacturing or services (Table 9).

Table 9. Businesses Potentially Engaged in Boat and Shipbuilding Surface Coating Operations

Name	Address	City	ZIP Code
Kreative Industrial Fiberglass	4305 East Sahara Ave. #27	Las Vegas	89104
Skiwi Marine	1620 N Boulder Hwy.	Henderson	89011

No active air quality permits were found for boat or ship coating or manufacturing at either of these businesses. DAQ presumes any potential emissions are de minimis and well below CTG RACT applicability thresholds.

Based on a review of emissions inventories, permit records, and business licenses, DAQ concludes there are no HA 212 sources that are part of the Boat or Shipbuilding Surface Coating Operation CTGs source category. Therefore, DAQ submits a negative declaration for this source category.

3.1.14 Wood Furniture

CTG:

- “Control of Volatile Organic Compound Emissions from Wood Furniture Manufacturing Operations” (EPA-453/R-96-007, 1996/04; EPA 1996).

SCCs:

- 40201901–999: Point Source – Wood Furniture: Solvent Utilization.
- 2401015000: Nonpoint Source – Finished Wood – All Solvent Types.
- 2401020000: Nonpoint Source – Wood Furniture – All Solvent Types.

Conclusion: DAQ submits a negative declaration for the Wood Furniture Manufacturing CTG. There are no stationary sources in HA 212 engaged in wood furniture manufacturing operations above the CTG VOC applicability threshold of 25 tpy.

Discussion: EPA developed this CTG for wood furniture manufacturing operations in ozone nonattainment areas with a PTE of at least 25 tpy of VOC (10 tpy in extreme areas). The CTG covers sources that use finishing, gluing, cleaning, and wash-off operations on wood furniture. A review of the Clark County emissions inventory reveals two nonpoint source emissions categories for wood furniture, with the most significant (SCC 2401020000) reporting 0.121 tpd for 2017 and 0.1402 tpd for 2026. There are no point sources with the relevant SCCs.

DAQ identified four sources with a permitted VOC PTE above 3 tpy, but all are below the 25 tpy threshold for the CTG source category (Table 10).

Table 10. Businesses Potentially Engaged in Wood Furniture Operations

Name	Source ID	VOC PTE (TPY)
AJ Custom Finishes	17198	5.14
Foliot Furniture Pacific Inc.	16587	5.79
Primera Interiors	17972	3.06
Western Casework Corporation	15247	9.53

Additionally, DAQ identified 105 businesses via online and business license searches with possible involvement in wood furniture manufacturing or cabinetmaking, but no permits or data indicate any businesses operate above the CTG applicability threshold.

Based on a review of emissions inventories, permit records, and business licenses, DAQ concludes that there are no sources in HA 212 belonging to the Wood Furniture Manufacturing CTG source category. Therefore, DAQ submits a negative declaration for this source category.

3.2 SOLVENT USERS

3.2.1 Degreasing Operations

CTG:

- “Control of Volatile Organic Emissions from Solvent Metal Cleaning” (Degreasing CTG) (EPA-450/2-77-022, 1977/11; EPA 1977h).

SCCs:

- 401400222: Point Source – Solvent: Degreasing.
- 40100336: Point Source – Solvent: Degreasing – Cold Cleaning.

- 40100308: Point Source – Solvent: Utilization – Degreaser – Cold Cleaner.
- 40100399: Point Source – Solvent: Degreasing – Cold Cleaning.
- 2415000000: Nonpoint Source – Solvent: Degreasing – All Solvent Types.

Conclusion: DAQ certifies that AQR 105, “VOC Emissions Control for Metal Solvent Degreaser Operations,” adopted locally and submitted by NDEP to EPA for approval into the SIP, fully implements CTG RACT requirements for the Solvent Metal Cleaning CTG source category.

Discussion: EPA issued the Solvent Metal Cleaning CTG in 1977 to guide control of VOC emissions from a range of degreasing operations, including cold cleaners, open-top vapor degreasers, and conveyorized degreasers using volatile solvents. Under the CTG, certain small units (i.e., conveyorized degreasers with an air/vapor interface smaller than 2.0 m² and open-top degreasers with an open area smaller than 1 m²) are exempt from presumptive RACT.

As part of the 2024 moderate SIP CTG analysis, DAQ identified solvent metal cleaning operations within HA 212 and developed AQR 105 to satisfy CTG RACT requirements for degreasing operations within HA 212. DAQ reviewed the current emissions inventory and confirmed that no additional sources have become subject to the CTG since the previous evaluation.

3.2.2 Large Petroleum Dry Cleaners

CTG:

- “Control of Volatile Organic Emissions from Large Petroleum Dry Cleaners” (EPA-450/3-82-009, 1982/09; EPA 1982).

SCCs:

- 40100102: Point Source – Dry Cleaning.
- 40100104: Point Source – Dry Cleaning.
- 40100147: Point Source – Dry Cleaning.
- 41000115: Point Source – Dry Cleaning.

Conclusion: DAQ submits a negative declaration for the Large Petroleum Dry Cleaners CTG. There are no stationary sources in HA 212 that meet or exceed the recommended applicability threshold for regulation under this CTG.

Discussion: This 1982 CTG addresses VOC controls for large petroleum dry cleaning operations, with a typical applicability threshold of 123,000 liters of petroleum solvent consumption per year (EPA 1982).

A review of Clark County permit files revealed only two permitted cleaners using petroleum solvents: AL Phillips the Cleaner (Source ID: 10014) and Brady Linen Services LLC (Source ID: 10201), both with solvent consumption limits below the CTG applicability threshold.

Specifically, Brady Linen Services LLC is the only source captured in the emissions inventory, operating with a dry-cleaning permit (SCC 41000115) and an annual limit of 1,200 gal (4,542 l), well below the applicability threshold.

Based on permit conditions, solvent usage records, and emissions data, DAQ confirms there are no petroleum dry cleaning operations in HA 212 that meet or exceed the recommended CTG applicability threshold. Therefore, a negative declaration is submitted for this source category.

3.2.3 Miscellaneous Industrial Adhesives

CTG:

- “Control Techniques Guidelines for Miscellaneous Industrial Adhesives” (EPA 453/R-08-005, 2008/09; EPA 2008c).

SCCs:

- 40200701: Point Source – Adhesive Application: Surface Coating.
- 40200706: Point Source – Adhesive Mixing.
- 40200707: Point Source – Adhesive Storage.
- 40200710: Point Source – Adhesive General.
- 40200711: Point Source – Adhesive Spray.
- 40200712: Point Source – Adhesive Roll-on.
- 30105101: Point Source – Animal Adhesives.
- 30105001: Point Source – General/Compound Unknown.
- 2460600000: Nonpoint Source – Adhesives and Sealants (consumer and commercial).

Conclusion: DAQ certifies that AQR 101, “VOC Emissions Control for Industrial Adhesives Operations,” adopted locally and submitted by NDEP to EPA for approval into the SIP, fully implements CTG RACT requirements for the Miscellaneous Industrial Adhesives source category.

Discussion: EPA issued the Industrial Adhesives CTG in 2008, which recommends VOC emissions controls for adhesive and primer applications that emit more than 3 tpy VOC. The CTG covers a broad range of adhesive uses, but excludes those governed by other CTGs (including applications for aerospace, metal furniture, large appliances, wood paneling, printing, coil and fabric coating, and rubber tire manufacturing). Some examples specifically addressed are motor vehicle adhesives, glass bonding primers, and weatherstripping adhesives for non-assembly line settings.

As part of the 2024 moderate SIP CTG analysis, DAQ identified sources of industrial adhesives within HA 212 and proposed AQR 101. The rule was adopted locally by the BCC to implement the requirements of this CTG. It applies to stationary sources with projected maximum VOC emissions equal to or greater than 3.0 tpy from industrial adhesive operations. DAQ reviewed the

current emissions inventory and confirmed that no additional sources have become subject to the CTG rule since the previous evaluation.

3.2.4 Industrial Cleaning Solvents

CTG:

- “Control Techniques Guidelines for Industrial Cleaning Solvents” (EPA-453/R-06-001, 2006/09; EPA 2006c).

SCCs:

- 40200201: Point Source – Water-Base Solvent: Utilization – General.
- 40200301: Point Source – Varnish/Shellac Solvent: Utilization – General.
- 40200401: Point Source – Lacquer Solvent: Utilization – General.
- 40200501: Point Source – Enamel Solvent: Utilization – General.
- 40200601: Point Source – Primer Solvent: Utilization – General.
- 40200801: Point Source – General Solvent: Utilization – Surface Coating.
- 40200901: Point Source – Solvent: Utilization – Thinning Solvents.
- 40200926: Point Source – Solvent: Utilization – Thinning Solvents.
- 40299998: Point Source – Solvent: Utilization – Misc.
- 40100308: Point Source – Methyl Ethyl Ketone.
- 2401200000: Nonpoint Source – Other Special Purpose Coatings.

Conclusion: DAQ certifies that AQR 104, “VOC Emissions Control for Industrial Cleaning Solvent Operations,” adopted locally and submitted by NDEP to EPA for approval into the SIP, fully implements CTG RACT requirements for the Industrial Cleaning Solvents source category.

Discussion: EPA issued the Industrial Cleaning Solvents CTG in 2006, including recommendations for VOC control from cleaning operations in industrial settings. The CTG lists a wide range of applicable operations, from cleaning of parts and equipment to general maintenance, and sets RACT for sources that emit significant quantities of VOCs from solvent cleaning.

As part of the 2024 moderate SIP CTG analysis, DAQ identified sources within HA 212 belonging to this source category and proposed AQR 104. The BCC adopted the rule locally on March 19, 2024. It applies to stationary sources with projected maximum emissions of VOCs equal to or greater than 3.0 tpy from industrial cleaning solvent operations. DAQ reviewed the current emissions inventory and confirmed that no additional sources have become subject to the CTG rule since the previous evaluation.

3.2.5 Graphic Arts

CTGs:

- “Control of Volatile Organic Emissions from Existing Stationary Sources – Volume VIII: Graphic Arts – Rotogravure and Flexography” (EPA-450/2-78-033, 1978/12; EPA 1978e).
- “Control Techniques Guidelines for Flexible Packaging Printing” (EPA-453/R-06-003, 2006/09; EPA 2006c).
- “Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing” (EPA-453/R-06-002, 2006/09; EPA 2006b).

SCCs:

- 40500308–9: Point Source – Flexographic Printing.
- 40500204–05: Point Source – Letterpress Printing.
- 40500402–03: Point Source – Lithographic Printing.
- 40500515–16: Point Source – Rotogravure Printing.
- 36000102: Point Source – Flexographic: Scrap Substrate Collection.
- 36000104: Point Source – Lithographic: Scrap Substrate Collection.
- 36000103: Point Source – Rotogravure: Scrap Substrate Collection.
- 2425000000: Nonpoint Source – Solvent: Graphic Arts.

Conclusion: DAQ adopted AQR 106, “VOC Emissions Control for Offset Lithographic, Letterpress, and Flexible Package Printing and Other Graphic Arts Operations.” The rule was adopted locally and submitted by NDEP to EPA for approval into the SIP to fully implement the CTG RACT requirements for the lithographic, letterpress, flexible package printing, and other Graphic Arts source categories. DAQ submits a negative declaration for the 1978 Rotogravure and Flexographic CTG source category because there are no identified stationary sources in the source category operating within HA 212.

Discussion: EPA has issued three CTGs affecting graphic arts operations in the printing and publishing industry. The 1978 CTG covers rotogravure and flexographic printing for publication and packaging when emissions from a source are at least 100 tpy of VOC. In 2006, EPA issued two additional CTGs that apply to flexible packaging and to offset lithographic and letter graphic and letterpress printing. The 2006 CTG for lithographic and letterpress printing suggests controls for operations with actual VOC emissions of 15 lb/day; for headset web offset lithographic printing and letterpress printing operations, EPA suggested add-on controls for sources with a PTE of 25 tpy VOC or more. For flexible packaging printing operations, the 2006 CTG recommends work practice controls when actual VOC emissions are greater than 15 lb/day and provides other control recommendations for presses with a PTE of 25 tpy VOC or more from inks, coatings, and adhesives.

DAQ previously identified applicable operations within this source category under the 2024 moderate SIP CTG analysis and proposed AQR 106 to implement CTG RACT requirements. The BCC adopted the rule locally on May 7, 2024. It applies to stationary sources having offset lithographic printing operations, letterpress printing operations, and/or flexible packaging printing operations with projected maximum VOC emissions equal to or greater than 3.0 tpy.

For the serious SIP update, DAQ reviewed the current emissions inventory and confirmed that no additional sources have become subject to the CTG rule since the previous evaluation. No operations in HA 212 were identified that meet the applicability threshold of 100 tpy for the 1978 Rotogravure and Flexographic Printing CTG category; therefore, DAQ submits a negative declaration for that source category.

3.3 CHEMICAL PROCESSES

3.3.1 Pharmaceutical

CTG:

- “Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products” (Pharma CTG) (EPA-450/2-78-029, 1978/12; EPA 1978g).

SCC:

- 2301030000: Nonpoint Source – Pharmaceutical Industrial Processes.

Conclusion: DAQ submits a negative declaration for the Pharmaceutical CTG. There are no stationary sources in HA 212 manufacturing synthesized pharmaceutical products that emit above the recommended CTG RACT applicability level.

Discussion: The Pharmaceutical CTG sets an emission unit-based applicability threshold for the manufacture of synthesized pharmaceutical products: typically, 15 lb VOC/day from any emission unit. A review of the emissions inventory found no reported sources under this SCC. There was one source related to industrial processes and food and agriculture that produces cannabis-derived products, Tryke Companies SO NV LLC, in the emissions inventory; however, the source was no longer in business as of November 10, 2025.

Although business license and internet searches identified 84 businesses with business activities or names possibly related to pharmaceutical manufacturing or compounding (Table 11), none possess an air quality permit for pharmaceutical process emissions. These businesses are therefore presumed to operate at levels below the recommended CTG threshold.

Based on a review of emissions inventories, permit records, and business licenses, DAQ confirms there are no pharmaceutical manufacturing operations in HA 212 belonging to the Pharma CTG source category. DAQ submits a negative declaration for this source category.

Table 11. Businesses Potentially Operating Pharmaceutical Operations

Name	Address	City	ZIP Code
Advanced Physique Nutrition LLC	2700 E Patrick Ln. 6	Las Vegas	89120
Agua Street LLC	340 Sunpac Ct. #4	Henderson	89011
Alcala Pharmaceuticals	6125 W Sahara Ave.	Las Vegas	89146
Alt Zero, Inc.	6285 McLeod Dr. #1	Las Vegas	89120
American Nutritional Corporation	2150 Sunrise Ave.	Las Vegas	89101
Angel Care Products	3352 Wayward Ct.	Las Vegas	89129
Artesyn Biosolutions	1771 South Sutro	Las Vegas	89106
Bespoke Pharmaceuticals LLC	5795 N Hollywood Blvd. #901	Las Vegas	89115
Bio Fine	2762 Boise St.	Las Vegas	89121
Bob Adler Sales	8217 Quail Arroyo Ave.	Las Vegas	89131
BPG Limited	9517 Grand Canal Dr.	Las Vegas	89117
CannVital NV LLC	6021 Badura Ave. #120	Las Vegas	89118
Cellmedics Inc.	10530 Discovery Dr.	Las Vegas	89117
Central Admixture Pharmacy Services	7061 W. Arby Ave.	Las Vegas	89113
Concierge Compounding	1879 Whitney Mesa Dr.	Henderson	89014
Copley Pharmaceuticals	2215 Renaissance Dr.	Las Vegas	89119
Cynet Corporation	Cynet Systems		
Donjo LLC	5608 Jelsma Ave.	Las Vegas	89141
EnzymeBiosystems	8250 Charleston Blvd. #120	Las Vegas	89117
Evergreen Organix	3669 Hacienda Ave.	Las Vegas	89104
Fibroplate, Inc.	6280 S Valley View Blvd. #104	Las Vegas	89118
Free for All, Inc.	8396 Teton Crest Pl.	Las Vegas	89143
Frontier Pharmaceutical Distributors	5020 Schuster St.	Las Vegas	89118
GB Sciences	3550 W Teco Ave.	Las Vegas	89118
Genesis Pharmaceutical	1710 Whitney Mesa Dr.	Henderson	89014
Geneva Mfg LLC	3065 N Rancho Dr. #110	Las Vegas	89130
GlaxoSmithKline	9232 Spruce Mountain Way	Las Vegas	89134
Greenway Health Community LLC	6 Sunset Way #104	Henderson	89014
Grove, Inc	1710 Whitney Mesa Dr.	Henderson	89014
Herbalicious	2875 E Patrick Ln. #A	Las Vegas	89120
International Integrated Management	3800 Howard Hughes Pkwy.	Las Vegas	89169
Invicta Pharmaceutical	6586 West Diablo Dr.	Las Vegas	89118
IQ Medical Services	2224 Martinique Ave.	Las Vegas	89044
Janone, Inc	325 E Warm Springs Road #102	Las Vegas	89119
Kloehn Inc.	10000 Banbury Cross	Las Vegas	89144
Las Vegas Trikes	10050 Banbury Cross Dr. #157	Las Vegas	89144
Legend Pharmaceuticals	504 Lob Wedge Ct.	Las Vegas	89144
Ligand Pharmaceuticals	3753 Howard Hughes Parkway #355	Las Vegas	89119
Linden, Inc.	7370 Eastgate Road #110	Henderson	89011
Liquid Chronic E Liquid	3230 Polaris Ave.	Las Vegas	89102
Longevinex	4425 S Jones Blvd.	Las Vegas	89103

Name	Address	City	ZIP Code
McKesson Corp.	3008 Via Sarafina Dr.	Henderson	89052
Medicreations	6370 Annie Oakley Dr.	Las Vegas	89120
Medigard	101 Convention Center Dr.	Las Vegas	89109
Medisca Inc.	3955 W Mesa Vista Ave.	Las Vegas	89118
Medisource	3975 W Quail Ave. #10	Las Vegas	89118
Mesa Oils	1051 Olsen St. #1011	Las Vegas	89011
MMI Laboratories, Inc.	4216 N Pecos Road #106	Las Vegas	89115
Molecular Throughput	5385 Cameron St. #7	Las Vegas	89118
Musclepharm Corporation	3753 Howard Hughes Pkwy. #200-849	Las Vegas	89119
My Life Bak	2767 Cherrydale Falls Dr.	Henderson	89052
Nano Solutions, LLC	601 E Charleston Blvd. #100	Las Vegas	89014
National Homeopathic Labs	4250 Wagon Trail Ave.	Las Vegas	89118
Nectar Bath Treats	2020 Pama Ln.	Las Vegas	89119
Neometrx	3443 Neeham Road	Las Vegas	89030
Neutra Corp.	400 4th St. #500	Las Vegas	89101
Nevada Health RX	61 Spectrum Blvd.	Las Vegas	89101
Nevada Organic Remedies	3705 E Post Road	Las Vegas	89120
Novum Pharmaceutical Research	3700 Pecos-McLeod	Las Vegas	89121
Nuro Pharma	6380 Polaris Ave. #B	Las Vegas	89118
Nutri Pharmaceuticals Research, Inc.	6780 Caballo St.	Las Vegas	89119
Pacifix Group	10413 Shadowland Ave.	Las Vegas	89144
Pharmacyte Biotech	3960 Howard Hughes Pkwy. #500	Las Vegas	89169
PHP Institute	5961 McLeod Dr.	Las Vegas	89120
Praxsyn Corp	61 Spectrum Blvd.	Las Vegas	89101
Procaps Laboratories	430 Parkson Road	Henderson	89011
R&J Productions	1817 Hermitage Dr.	Las Vegas	89108
Re Scents	7927 Aspendale Dr.	Las Vegas	89123
Real Aloe Solutions	7470 Dean Martin Dr. #102	Las Vegas	89139
Reef Dispensary	3400 Western Ave.	Las Vegas	89109
Regulatory Compliance Inttvs	P.O. Box 959651		
Silver Sage Wellness LLC	4071 Ponderosa Way	Las Vegas	89118
Skin Visible Pharmaceuticals	6320 S Sandhill Road	Las Vegas	89120
Spectrum Pharmaceuticals	11500 S Eastern Ave. #240	Las Vegas	89052
Sphaera Pharma, Inc	1810 E Sahara Ave. #787	Las Vegas	89104
Sprayable Energy LLC	3651 Lindell Road #D1113	Las Vegas	89103
Syncor International Corp	61 Spectrum Blvd.	Las Vegas	89101
Thinkbiome LLC	848 Rainbow Blvd. #2967	Las Vegas	89107
Unifern LLC	7720 Eastgate Road	Las Vegas	89011
USP US Pharmatech Inc	7210 W Post Road Ste. 100	Las Vegas	89113
Wild Leaf Holdings U.S. LLC	4751 Vanderberg Dr. #A	Las Vegas	89081
Worldwide Clinical Trials	11024 Calder Ave.	Las Vegas	89144
Yew Biopharm	723 S Casino Center Blvd.	Las Vegas	89101
Zurich Pharmaceuticals	2850 W Horizon Pkwy.	Henderson	89052

3.3.2 Polymers and Resins

CTGs:

- “Control of Volatile Organic Compound Emissions from Manufacture of High-Density Polyethylene, Polypropylene, and Polystyrene Resins” (EPA-450/3-83-008, 1983/11; EPA 1983a).
- “Control of Volatile Organic Compound Leaks from Synthetic Organic Chemical and Polymer Manufacturing Equipment” (EPA-450/3-83-006, 1984/03; EPA 1984b).

SCCs:

- 30108001: Point Source – Polymer and Resin: General.
- 30108004: Point Source – Polymer and Resin: Material Recovery.
- 30108003: Point Source – Polymer and Resin: Polymerization Reaction.
- 30108005: Point Source – Polymer and Resin: Product Finishing.
- 30108002: Point Source – Polymer and Resin: Raw Material Preparation.
- 30880001: Point Source – Rubber and Misc: Plastic Products Equipment Leaks.
- 30800700–99; 30800800–899; 30800699: Point Source – Rubber and Misc: Plastic Products.
- 30800901: Point Source – Polystyrene.
- 30102437: Point Source – Acrylic and Modacrylic Fibers.
- 30801001–09: Point Source – Rubber and Misc: Plastic Products – Adhesives/Other.
- 30108202: Point Source – Polymerization: Batch Cell.
- 30108219: Point Source – Polymerization: Centrifuge.
- 30102670: Point Source – Polystyrene – Stripper.
- 2430000000: Nonpoint Source – Rubber/Plastics Manufacturing Solvents.
- 2308000000: Nonpoint Source – Rubber and Misc Plastic Products.

Conclusion: DAQ submits a negative declaration for the Polymer and Resin Manufacturing CTGs. There are no stationary sources in HA 212 manufacturing polymers or resins from raw materials that emit at levels triggering CTG RACT applicability.

Discussion: These CTGs address sources manufacturing high-density polyethylene, polypropylene, polystyrene, and related resins (SIC codes 2821, 2822, 2823, and 2824), and sources subject to synthetic organic chemical equipment leak standards. The CTG did not establish presumptive RACT for the source category, but conducted a cost analysis for available controls assuming a potential to emit of at least 25–50 tpy VOC, depending on the type of operation.

A review of emissions inventory and permit records identified eight point sources associated with related SCCs, but further investigation revealed that none met the applicability criteria:

- **Universal Urethane** (Source ID: 859) operations pertain to urethane foam production (SIC 3086), not polymer/resin production from raw feedstock.
- **Metl Span**, now Nucor Insulated Panel Group, Inc. (Source ID: 15422), manufactures metal building panels (SIC 3448), which are outside the scope of this CTG.
- **Jensen Enterprises, Inc.** (Source ID: 408) is a precast concrete manufacturer (SIC 3273) not engaged in polymer or resin synthesis.
- **Artesian Spas** (Source ID: 15426) produces fiberglass spas (SIC 3088), but only uses styrene and PVC adhesives without manufacturing polymers or resins. Adhesives are addressed under the Industrial Adhesives CTG.
- **Berry Plastics** (Source ID: 597) stores but does not manufacture polyethylene or polypropylene resin (SIC 3089); most emissions arise from offset printing, regulated under the Graphic Arts and Surface Coating CTGs.
- **Poly West** (Source ID: 15534), which makes polyethylene bags (SIC 2673), is regulated as flexible package printing, covered under the Graphic Arts CTG.
- **Flexaust Incorporated** (Source ID: 18086) manufactures flexible hose, ducting, and accessories (SIC 3052). Its operations use polyethylene extruders to form products, as well as adhesives, but do not produce polymer/resins from raw feedstock.
- **Beads** (Source ID: 18202) manufacturers polystyrene foam (SIC 3086) from polystyrene beads, but does not manufacture polystyrene beads from raw feedstock.

A further review of permit records and businesses potentially engaged in such operations did not find any businesses manufacturing polymers and resins. There are no Clark County stationary sources manufacturing polymers or resins from raw materials under the SIC codes covered by these CTGs.

Based on a review of emissions inventories, permit records, and business licenses, DAQ concludes there are no sources in HA 212 subject to the Polymer and Resin Manufacturing CTGs. Therefore, DAQ submits a negative declaration for this source category.

3.3.3 Rubber Tires Manufacturing

CTG:

- “Control of Volatile Organic Emissions from Manufacture of Pneumatic Rubber Tires” (EPA-450/2-78-030, 1978/12; EPA 1978f).

SCCs:

- 30800101–199: Point Source – Rubber Tire Solvent: Mixing and Misc Operations.
- 40700401–40799998: Point Source – Rubber Tire Solvent: Storage.

Conclusion: DAQ submits a negative declaration for the Rubber Tire Manufacturing CTG. There are no identified stationary sources in this source category operating within HA 212.

Discussion: EPA’s 1978 CTG addresses VOC emissions from pneumatic rubber tire manufacturing processes, including under-tread cementing, tread-end cementing, bead dipping, and green tire spraying. The source category is also regulated under NSPS and NESHAP.

A review of the Clark County emissions inventory revealed no point or nonpoint source emissions under the rubber tire manufacturing SCCs. A national list of rubber tire manufacturers ([Tires Made in USA: American & Foreign Brands](#)) confirms that no such sources operate in Clark County.

Based on the emissions inventory and a confirmation of local industry absence, DAQ concludes there are no stationary sources belonging to the Rubber Tire Manufacturing CTG in HA 212. Therefore, DAQ submits a negative declaration for this source category.

3.3.4 Synthetic Organic Chemical Manufacturing Industry

CTGs:

- “Control of Volatile Organic Compound Emissions from Reactor Processes and Distillation Operations in Synthetic Organic Chemical Manufacturing Industry” (EPA-450/4-91-031, 1993/08; EPA 1993).
- “Control of Volatile Organic Compound Emissions from Air Oxidation Processes in Synthetic Organic Chemical Manufacturing Industry” (EPA-450/3-84-015, 1984/12; EPA 1984a).
- “Control of Volatile Organic Compound Leaks from Synthetic Organic Chemical and Resin Manufacturing Equipment” (EPA-450/3-83-006, 1984/03; EPA 1984b).

SCCs: Examples include:

- 30117402: Point Source – Air Oxidation Reactor.
- 30181001: Point Source – Air Oxidation Reactor–Synthetic Organic Chemical Manufacturing Industry (SOCMI).
- 30119002: Point Source – SOCMI Reactor–Acetone.
- 30116902: Point Source – SOCMI Reactor–Alkylation.
- 30125802: Point Source – SOCMI Reactor–Benzene.
- 30120553: Point Source – SOCMI Reactor–Dehydration.
- 30121003: Point Source – SOCMI Reactor–Dehydrogenation.
- 30109153: Point Source – Light End Distillation–Acetone.
- 30130115: Point Source – Atmospheric Distillation–Vents.

Conclusion: DAQ submits a negative declaration for these SOCMI CTGs. There are no stationary sources in HA 212 engaged in synthetic organic chemical manufacturing processes, reactor or distillation operations, or air oxidation that emit above the recommended CTG RACT applicability level.

Discussion: EPA has issued several CTGs for the SOCMI, including reactor processes, distillation, air oxidation, and VOC leaks from chemical manufacturing equipment. A review of Clark County’s emissions inventory and permitting records showed no sources reporting emissions in these categories.

DAQ has issued three permits for chemical manufacturing; however, all these sources manufacture inorganic chemicals. They do not conduct organic oxidation pertaining to the CTG source category. EMD Acquisition LLC (Source ID: 95), permitted for activities under SIC code 2819, “Industrial Inorganic Chemicals,” manufactures only inorganic chemicals; it does not conduct any organic oxidation or other operations subject to this CTG. Thatcher Company of Nevada (Source ID: 44) is permitted for activities under SIC code 2819, but its total source VOC PTE is 0.29 tpy, below the applicability threshold. Olin Chlor Alkali Products (Source ID: 9) is permitted for activities under SIC code 2812, “Alkalies and Chlorine”; it manufactures bleach, but with a total source VOC PTE of 1.41 tpy. All three sources are regulated for non-CTG pollutant discharges, but do not belong to these CTG source categories.

Although 27 additional businesses (Table 12) were identified from online/business license records as potentially engaged in chemical production, none have operational profiles consistent with SOCMI CTG coverage or have emissions likely to exceed the CTG applicability. No actual or potential sources were found in the emissions inventory.

Table 12. Businesses Potentially Operating Synthetic Organic Chemical Manufacturing Operations

Name	Address	City	ZIP Code
A-1 Chemical/Winzer	4755 Procyon St.	Las Vegas	89120
Armourcoat Surface Finishes, Inc	4330 Production Ct.	Las Vegas	89115
Belzona Mountain States	P.O. Box 95576	Las Vegas	89193
Brenntag Pacific	3880 E Craig Road	Las Vegas	89030
Brenntag West			
Cardinal Paint and Powder, Inc.	1900 Aerojet Way	NLV	89030
Chemstation	4440 Mitchell St.	NLV	89081
Dioxide Pacific	2654 W Horizon Ridge #B-562	Henderson	89052
Fabrichem Systems	1100 Foremaster Ln.	Las Vegas	89101
Fabrichem Systems	7322 S Rainbow Blvd.	Las Vegas	89139
Maintenance Solutions Inc	9804 Bearpaw Ave.	Las Vegas	89117
Malicious Liquids, Inc	7665 Commercial Way #D	Henderson	890011
May Chemical	P.O. Box 34525	Las Vegas	89133
Nalco	333 N Rancho Dr.	Las Vegas	89106
Nature Coatings	1027 S Rainbow Blvd. #11	Las Vegas	89145
Nevada Chemical Technologies	8013 Shorecrest Dr.	Las Vegas	89123
Nitrex, Inc.	201 E Mayflower Ave.	NLV	89030
Nitrex, inc.	2925 Brookspark Dr.	NLV	89030
Sahalee Liquor Company LLC	3866 Civic Center Dr.	Las Vegas	89030
Specchem LLC	3930 E Lone Mountain Road	Las Vegas	89081
St Dupont	3355 S Las Vegas Blvd.	Las Vegas	89109

Name	Address	City	ZIP Code
The Slip Seal Company LLC	4550 Donovan Way #112	NLV	89081
Target Specialty Products	3455 W Lake Mead Blvd.	NLV	89032
Timet	181 N Water St. Gate 3	Henderson	89015
UCI	3977 W Oquendo Road #G	Las Vegas	89118
Univar USA	4650 S Valley Blvd.	Las Vegas	89103
Zenith Energy Enzymes, Inc	980 Mary Crest Road #E	Henderson	89014

Based on a review of emissions inventories, permit records, and business licenses, DAQ confirms there are no stationary sources in HA 212 belonging to the SOCMi CTGs source categories. Therefore, DAQ submits a negative declaration for these source categories.

3.4 PETROLEUM PROCESSES

3.4.1 Cutback Asphalt

CTG:

- “Control of Volatile Organic Emissions from Use of Cutback Asphalt” (EPA-450/2-77-037, 1977/12; EPA 1977j).

SCC:

- 2461021000: Nonpoint Source – Nonindustrial: Cutback Asphalt.

Conclusion: DAQ certifies that AQR 107, “Cutback Asphalt Manufacturing and Use,” adopted locally and submitted by NDEP to EPA for approval into the SIP, fully implements the CTG requirements for the Cutback Asphalt CTG source category.

Discussion: EPA issued the Cutback Asphalt CTG in 1977 to reduce VOC emissions from the use of cutback asphalt in paving applications. Cutback asphalt is produced by liquefying asphalt with petroleum distillates, resulting in volatilization and the release of VOC during its use in roadway construction.

3.4.2 Gasoline Loading Terminals and Bulk Gasoline Plants

CTGs:

- “Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals” (EPA-450/2-77-026, 1977/10; EPA 1977a).
- “Control of Volatile Organic Emissions from Bulk Gasoline Plants” (EPA-450/2-77-035, 1977/12; EPA 1977c).
- “Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems” (EPA-450/2-78-051, 1978/12; EPA 1978a).

SCCs:

- 40600136: Point Source – Petroleum & Petroleum Product Transport: Splash Loading.
- 40600101: Point Source – Petroleum & Petroleum Product Transport: Splash Loading.

- 40600126: Point Source – Petroleum & Petroleum Product Transport: Submerged Loading.
- 40600141: Point Source – Petroleum & Petroleum Product Transport: Balanced Submerged Loading.
- 40400152: Point Source – Vapor Collection Losses: Bulk Terminals.
- 2501050000: Nonpoint Source – Bulk Gasoline Terminals: All Products.
- 2501055120: Nonpoint Source – Bulk Terminals and Plants: Area Sources.

Conclusion: DAQ certifies that AQRs 13.3 and 14.2, which incorporate by reference 40 CFR 60, Subparts XX and Xa, and 40 CFR 63, Subpart BBBBBB, adopted locally and submitted by NDEP to EPA for approval into the SIP, fully implement the requirements for the Gasoline Loading Terminals and Bulk Gasoline Tanks CTG source categories.

Discussion: EPA issued two CTGs recommending emissions controls for gasoline loading plants and terminals: the Terminals CTG recommends controls for larger sources with throughputs greater than 20,000 gal (76,000 l) of gasoline per day, while the Bulk Plant CTG recommends controls for smaller sources with daily throughputs below that. Bulk gasoline plants serve as secondary distribution sources that receive fuel from gasoline terminals and then transport it to local businesses via account truck.

The Bulk Plant CTG addresses splash fill operations.

The Terminals CTG recommends controls for loading gasoline into tank trucks at bulk terminals based on the use of submerged fill, bottom loading, or, if top loading is used, a vapor-control system that reduces emissions to 80 mg total organic carbon (TOC)/l or less of gasoline.

The Leaks CTG recommends controls for gasoline trucks equipped for vapor collection and bulk terminals, bulk plants, and service stations equipped with a vapor balance and/or vapor processing system. It recommends gasoline trucks maintain pressure changes below certain levels and avoid visible leaks. It also suggests standards to avoid leaks during loading and unloading.

To address these requirements, DAQ incorporated by reference 40 CFR Part 60, Subparts XX and XXa (NSPS for gasoline terminals), and 40 CFR Part 63, Subpart BBBBBB (NESHAP for area source gasoline distribution), into AQRs 13.3 and 14.2. The BCC adopted these provisions on September 17, 2024. These rules collectively ensure that all gasoline distribution operations within HA 212 are regulated with RACT standards. AQRs 13.3 and 14.2 remain in effect locally, and were submitted to EPA on March 7, 2025, for final action and inclusion into the SIP.

3.4.3 Gasoline Service Stations

CTG:

- “Design Criteria for Stage I Vapor Control Systems – Gasoline Service Systems” (EPA-450/R-75-102, 1975/11; EPA 1975).

SCCs: Those associated with gasoline service stations reflect emissions both before and after the application of CTG RACT-level controls, such as Stage I vapor balance and submerged filling:

- 2501060052: Nonpoint Source – Service Stations: Splash Filling.
- 2501060050: Nonpoint Source – Gas Stations: Total.

Conclusion: DAQ certifies that AQR 102, “Gasoline Dispensing Facilities,” adopted locally and submitted by NDEP to EPA for approval into the SIP, fully implements the requirements for the Gasoline Service Station CTG source category.

Discussion: EPA issued the Gasoline Service Station CTG in 1975 to reduce VOC emissions from commercial gasoline stations. The CTG recommends Stage I vapor recovery during storage tank filling and submerged filling from delivery vehicles to tanks, together with regular inspection and maintenance of vapor recovery systems. The presumptive RACT addresses stations exceeding 10,000 gal/month throughput.

DAQ proposed AQR 102 as part of the 2024 moderate SIP submittal. The rule was adopted locally by the BCC on March 19, 2024, with subsequent amendments adopted on February 4, 2025, and December 2, 2025. It applies to stationary sources with a total combined gasoline throughput of 120,000 gal or more during any consecutive 12-month period, and to any gasoline storage tank with a capacity of 250 gal (946 L) or more; however, it does not apply to loading gasoline into any storage tank equipped with a floating roof or the equivalent. AQR 102 ensures that all applicable gasoline dispensing facilities in HA 212 meet CTG vapor recovery, submerged fill, and related work practice standards.

3.4.4 Oil and Natural Gas Industry

CTGs:

- “Control of Volatile Organic Compound Equipment Leaks from Natural Gas/Gasoline Processing Plants” (EPA-450/3-83-007, 1983/12; EPA 1983b).
- “Control Techniques Guidelines for the Oil and Natural Gas Industry” (EPA-453/B-16-001, 2016/10; EPA 2016).

Conclusion: DAQ submits a negative declaration for the oil and natural gas industry CTG source category. There are no natural gas processing plants or oil processing sources operating within HA 212 that emit above the recommended CTG RACT applicability level.

Discussion: Both referenced CTGs focus specifically on leak controls and equipment standards for natural gas and gasoline processing sources, including requirements for monitoring and controlling VOC emissions from process equipment.

A DAQ review of the emissions inventory, permits, and business licenses did not identify any natural gas processing plants or related sources in the nonattainment area. Based on this review, DAQ confirms there are no stationary sources in HA 212 belonging to these CTG source categories. Therefore, DAQ submits a negative declaration for the oil and natural gas industry source category.

3.4.5 Petroleum Storage – Fixed Roof

CTGs:

- “Control of Volatile Organic Emissions from Storage of Petroleum Liquids in Fixed-Roof Tanks” (Petroleum Storage CTG 1) (EPA-450/2-77-036, 1977/12; EPA 1977i).
- “Control of Volatile Organic Emissions from Petroleum Liquid Storage in External Floating Roof Tanks” (Petroleum Storage CTG 2) (EPA-450/2-78-047, 1978/12; EPA 1978h).

Conclusion: DAQ certifies that existing AQRs 13.3 and 14.2 meet the presumptive RACT level for the petroleum storage CTG source categories by incorporating by reference 40 CFR 60, Subparts K, Ka, and Kb and 40 CFR 63, Subpart BBBB, which were adopted locally and submitted by NDEP to EPA for approval into the SIP.

Discussion: EPA first issued guidance in 1977 for fixed-roof petroleum storage tanks larger than 40,000 gal (150,000 L) containing products with a true vapor pressure above 10.5 kilopascals (1.5 pounds per square inch), recommending internal floating roofs as RACT. In 1978, the CTG for external floating roof tanks was introduced, applying equivalent vapor pressure thresholds and recommending secondary seals or equivalent vapor controls. The CTGs exempt tanks smaller than 422,675 gal when storing crude oil or condensate prior to custody transfer.

In 1977, 1980, and 1987, EPA promulgated NSPS standards that regulate the same universe of petroleum storage tanks as the Petroleum Storage CTG, but with equal or more stringent requirements (40 CFR 60, Subparts K, Ka, and Kb). EPA subsequently promulgated a NESHAP (40 CFR Part 63, Subpart BBBB) that reduces VOC emissions from these source categories to levels that exceed the presumptive RACT requirements. DAQ incorporated by reference the federal petroleum storage NESHAP (40 CFR Part 63, Subpart BBBB) and NSPS (40 CFR Part 60, Subparts K, Ka, Kb) into AQRs 13.3 and 14.2, respectively, to meet CTG RACT requirements. The BCC adopted these provisions locally on September 17, 2024. NDEP submitted the rules to EPA on March 7, 2025, for final action and inclusion into the Nevada SIP.

3.4.6 Refinery Operations

CTGs:

- Control of Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds (EPA-450/2-77-025, 1977/10; EPA 1977b).
- Control of Volatile Organic Compound Leaks from Petroleum Refinery Equipment (EPA-450/2-78-036, 1978/06; EPA 1978b).

Conclusion: DAQ submits a negative declaration for these Refinery Operations CTGs source categories. There are no stationary sources in HA 212 operating as petroleum refineries within the scope of these categories or emitting above recommended CTG RACT applicability levels.

Discussion: EPA first established CTGs in 1977 to address VOC emissions from vacuum-producing systems, wastewater separators, and process unit turnarounds at petroleum refineries,

followed by a separate guideline for refinery equipment leak controls in 1978. The target sources engage in traditional petroleum refining of raw crude oil or petroleum feedstocks, with applicability determined by both operational activity and emissions.

A review of permit records identified one potentially relevant source: MBT Nevada, LLC (Source ID: 17392), which holds SIC code 2911 and NAICS code 324110 designations typically associated with petroleum refineries. However, MBT Nevada processes “transmix,” a blend of finished fuels such as gasoline, diesel, and potentially jet fuel, to produce usable gasoline and diesel. This source does not process raw crude oil or petroleum feedstocks, therefore is not classified as a petroleum refinery under the CTG definitions.

MBT Nevada’s PTE is 5.60 tpy VOC, but because it does not conduct crude oil refining operations, it is not part of the Refinery Operations CTGs source categories. No other stationary sources were identified in the emissions inventory as conducting activities covered by these categories.

Based on this finding, DAQ submits a negative declaration for the Refinery Operations CTGs, since there are no sources in HA 212 that meet or exceed the applicability criteria.

3.5 SUMMARY OF FINDINGS

Table 13 summarizes this appendix’s CTG RACT analysis.

**Table 13. Summary of CTG RACT Analysis:
Certification of No Sources Operating in HA 212 or CTG RACT Rule**

Source Category	CTG (EPA Doc #)	CTG Finding
Aerospace Manufacturing/ Rework Operations	EPA-453/R-97-004	Negative Declaration: No sources above applicability threshold
Automobiles & Light-Duty Truck Manufacturing	EPA-450/2-77-008, EPA 453/R-08-006	Negative Declaration: No assembly plants; all sources below threshold
Automobile Refinishing	EPA-450/3-88-009	Does not define RACT; EPA promulgated federal rule that supersedes CTG RACT
Metal Coils	EPA-450/2-77-008	Negative Declaration: No sources identified
Fabric Coating	EPA-450/2-77-008	Submitting CTG RACT Rule AQR 108, “VOC Emissions Control for Paper, Film, Foil, Fabric, and Vinyl Coating Operations”
Flat Wood Paneling	EPA-450/2-78-032, EPA-453/R-06-004	Negative Declaration: No sources above threshold
Large Appliances	EPA-450/2-77-034, EPA 453/R-07-004	Negative Declaration: No sources identified
Magnet Wire	EPA-450/2-77-033	Negative Declaration: No sources above threshold
Metal Cans	EPA-450/2-77-008	Negative Declaration: No sources identified
Metal Furniture	EPA-450/2-77-032, EPA 453/R-07-005	Negative Declaration: No sources above threshold
Misc. Metal & Plastic Parts Coating	EPA-450/2-78-015, EPA 453/R-08-003	AQR 103 “VOC Emissions Control for Miscellaneous Metal or Plastic Parts Coating Operations”

Source Category	CTG (EPA Doc #)	CTG Finding
Paper, Film, and Foil Coatings	EPA-450/2-77-008, EPA 453/R-07-003	Submitting CTG RACT Rule, AQR 108, "VOC Emissions Control for Paper, Film, Foil, Fabric, and Vinyl Coating Operations"
Boat & Ship Building	61 FR-44050 (8/27/96), EPA 453/R-08-004	Negative Declaration: No sources identified
Wood Furniture Manufacturing	EPA-453/R-96-007	Negative Declaration: No sources above 25 tpy threshold
Degreasing Operations	EPA-450/2-77-022	AQR 105, "VOC Emissions Control for Metal Solvent Degreaser Operations"
Dry Cleaners	EPA-450/3-82-009	Negative Declaration: No sources identified subject to CTG
Industrial Adhesives	EPA 453/R-08-005	AQR 101, "VOC Emissions Control for Industrial Adhesives Operations"
Industrial Cleaning Solvents	EPA-453/R-06-001	AQR 104, "VOC Emissions Control for Industrial Cleaning Solvent Operations"
Graphic Arts	EPA-450/2-78-033, EPA-453/R-06-003, EPA-453/R-06-002	AQR 106, "VOC Emissions Control for Offset Lithographic, Letterpress, and Flexible Package Printing and Other Graphic Arts Operations;" Negative Declaration for rotogravure/flexo CTG
Pharmaceuticals	EPA-450/2-78-029	Negative Declaration: No sources above emission unit threshold
Polymers & Resins	EPA-450/3-83-008, EPA-450/3-83-006	Negative Declaration: No applicable manufacturing sources
SOCMI (Syn. Org. Chemical Mfg. Industry)	EPA-450/4-91-031, EPA-450/3-84-015, EPA-450/3-83-006	Negative Declaration: No sources identified
Rubber Tire Manufacturing	EPA-450/2-78-030	Negative Declaration: No manufacturers identified
Cutback Asphalt	EPA-450/2-77-037	AQR 107, "VOC Emissions Control for Cutback Asphalt Operations"
Gasoline Loading Terminals/ Bulk Plants	EPA-450/2-77-026, EPA-450/2-77-035, EPA-450/2-78-051	AQRs 13.3 and 14.2
Gasoline Service	EPA-450/R-75-102	AQR 102, "Gasoline Dispensing Facilities"
Oil & Natural Gas Industry	EPA-450/3-83-007, EPA-453/B-16-001	Negative Declaration: No sources identified
Petroleum Storage	EPA-450/2-77-036, EPA-450/2-78-047	AQRs 13.3 and 14.2
Refinery Operations	EPA-450/2-77-025, EPA-450/2-78-036	Negative Declaration: No sources meeting CTG definition

4.0 REFERENCES

42 U.S.C. 7401 et seq. Clean Air Act.

310 CMR 7.18. Air Pollution Control: U Volatile and Halogenated Organic Compounds. Section 310 7.18 of the Code of Massachusetts Regulations: Boston, MA.

40 CFR Part 51.1300, Subpart CC. Provisions for Implementation of the 2015 Ozone National Ambient Air Quality Standards.

40 CFR Part 51.1303. Application of classification and attainment date provisions in CAA section 181 to areas subject to Section 51.1302.

40 CFR Part 59, Subpart B. National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings.

40 CFR Part 60, Subpart BBB. Standards of Performance for the Rubber Tire Manufacturing Industry.

40 CFR Part 60, Subpart JJJJ. National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating.

40 CFR Part 60, Subpart K. Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978.

40 CFR Part 60, Subpart RR. Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations.

40 CFR Part 60, Subpart TT. Standards of Performance for Metal Coil Surface Coating.

40 CFR Part 60, Subpart TTT. Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines.

40 CFR Part 60, Subparts XX and XXa. Standards of Performance for Bulk Gasoline Terminals That Commenced Construction, Modification, or Reconstruction After December 17, 1980, and On or Before June 10, 2022; and Standards of Performance for Bulk Gasoline Terminals that Commenced Construction, Modification, or Reconstruction After June 10, 2022.

40 CFR Part 63, Subpart BBBBBB. National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities.

40 CFR Part 63, Subpart MMMM. National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products.

40 CFR Part 63, Subpart PPPP. National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products.

40 CFR Part 70.2. Definitions.

44 FR 53761. State Implementation Plans; General Preamble for Proposed Rulemaking on Approval of Plan Revisions for Nonattainment Areas—Supplement (on Control Techniques Guidelines).

61 FR 44050. Control Techniques Guidelines for Shipbuilding and Ship Repair Operations (Surface Coating).

83 FR 25776. Additional air quality designations for the 2015 Ozone National Ambient Air Quality Standards.

83 FR 62998. Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area State Implementation Plan Requirements.

89 FR 103657. Finding of failure to attain and reclassification of Las Vegas Area as Serious for the 2015 Ozone National Ambient Air Quality Standards.

DES. 2024a. *2015 Ozone NAAQS Attainment Plan for the Las Vegas Valley Moderate Nonattainment Area*. Las Vegas, NV: Clark County Department of Environment and Sustainability. <https://www.clarkcountynv.gov/adobe/assets/urn:aaid:aem:e15f5c05-9c2f-4c31-acc1-a0f50b0caa8e/original/as/20241105-ccdes-2015-o3-moderate-attainment-plan.pdf>.

DES. 2024b. *Control Techniques Guideline (CTG) Source Category Analysis for 2015 8-hour Ozone NAAQS Reasonably Available Control Technology (RACT) Requirements*. Las Vegas, NV: Clark County Department of Environment and Sustainability.

DES. 2025. *Emission inventories for 2017, 2023, and 2026 for the Clark County ozone nonattainment area*. Las Vegas, NV: Clark County Department of Environment and Sustainability.

EPA. 1975. *Design Criteria for Stage I Vapor Control Systems – Gasoline Service Stations*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>

EPA. 1977a. *Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>

EPA. 1977b. *Control of Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1977c. *Control of Volatile Organic Emissions from Bulk Gasoline Plants*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and

Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. May 1977d. *Control of Volatile Organic Emissions from Existing Stationary Sources – Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1977e. *Control of Volatile Organic Emissions from Existing Stationary Sources – Volume III: Surface Coating of Metal Furniture*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1977f. *Control of Volatile Organic Emissions from Existing Stationary Sources – Volume IV: Surface Coating of Insulation of Magnet Wire*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1977g. *Control of Volatile Organic Emissions from Existing Stationary Sources – Volume V: Surface Coating of Large Appliances*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1977h. *Control of Volatile Organic Emissions from Solvent Metal Cleaning*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1977i. *Control of Volatile Organic Emissions from Storage of Petroleum Liquids in Fixed-Roof Tanks*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1977j. *Control of Volatile Organic Emissions from Storage of Petroleum Liquids in Fixed-Roof Tanks*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1977j. *Control of Volatile Organic Emissions from Use of Cutback Asphalt*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1978a. *Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems*. Research Triangle Park, NC: U.S. Environmental Protection Agency,

Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1978b. *Control of Volatile Organic Compound Leaks from Petroleum Refinery Equipment*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1978c. *Control of Volatile Organic Emissions from Existing Stationary Sources – Volume VI: Surface Coating of Miscellaneous Metal Parts and Products*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1978d. *Control of Volatile Organic Emissions from Existing Stationary Sources – Volume VII: Factory Surface Coating of Flat Wood Paneling*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1978e. *Control of Volatile Organic Emissions from Existing Stationary Sources – Volume VIII: Graphic Arts-Rotogravure and Flexography*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1978f. *Control of Volatile Organic Emissions from Manufacture of Pneumatic Rubber Tires*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1978g. *Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1978h. *Control of Volatile Organic Emissions from Petroleum Liquid Storage in External Floating Roof Tanks*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1982. *Control of Volatile Organic Compound Emissions from Large Petroleum Dry Cleaners*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1983a. *Control of Volatile Organic Compound Emissions from Manufacture of High-Density Polyethylene, Polypropylene, and Polystyrene Resins*. Research Triangle Park, NC: U.S.

Environmental Protection Agency, Office of Air Quality Planning and Standards.

<https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1983b. *Control of Volatile Organic Compound Equipment Leaks from Natural Gas/Gasoline Processing Plants*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1984a. *Control of Volatile Organic Compound Emissions from Air Oxidation Processes in Synthetic Organic Chemical Manufacturing Industry*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1984b. *Control of Volatile Organic Compound Leaks from Synthetic Organic Chemical Polymer and Resin Manufacturing Equipment*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1988. *Reduction of Volatile Organic Compound Emissions from Automobile Refinishing*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1993. *Control of Volatile Organic Compound Emissions from Reactor Processes and Distillation Operations in Synthetic Organic Chemical Manufacturing Industry*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1994. *Alternative Control Techniques Document: Surface Coating of Automotive/Transportation and Business Machine Plastic Parts*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1996. *Control of Volatile Organic Compound Emissions from Wood Furniture Manufacturing Operations*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 1997. *Control of Volatile Organic Compound Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations*. Guideline series report. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. https://www3.epa.gov/airquality/ctg_act/199712_voc_epa453_r-97-004_aerospace_rework.pdf.

EPA. 2006a. *Control Techniques Guidelines for Flat Wood Paneling Coatings*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 2006b. *Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 2006c. *Control Techniques Guidelines for Industrial Cleaning Solvents*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 2007a. *Control Techniques Guidelines for Large Appliance Coatings*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 2007b. *Control Techniques Guidelines for Metal Furniture Coatings*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 2007c. *Control Techniques Guidelines for Paper, Film, and Foil Coatings*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 2008a. *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 2008b. *Control Techniques Guidelines for Fiberglass Boat Manufacturing Materials*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 2008c. *Control Techniques Guidelines for Miscellaneous Industrial Adhesives*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 2008d. *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air

Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 2016. *Control Techniques Guidelines for the Oil and Natural Gas Industry*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. <https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques>.

EPA. 2021. *2017 National Emissions Inventory: January 2021 Updated Release, Technical Support Document*. https://www.epa.gov/sites/default/files/2021-02/documents/nei2017_tsd_full_jan2021.pdf.