EXHIBIT 2

SECTION 105: VOC EMISSIONS CONTROL FOR METAL SOLVENT DEGREASER OPERATIONS

105.1 Purpose 1

105.2 Applicability 1

105.3 Definitions 2

105.4 Exemptions 3

105.5 Emissions Standards for Cold Cleaners 4

105.6 Emissions Standards for Open Top Vapor Degreasers 5

105.7 Emissions Standards for Conveyorized Degreasers 7

105.8 Compliance Obligations 9

105.8.1 Compliance When Using an Emissions Control System 9

105.9 Registration Requirements 10

105.10 Notification, Recordkeeping, and Reporting Requirements 12

105.10.1 Notification Requirements 12

105.10.2 Recordkeeping Requirements 12

105.10.3 Reporting Requirements 14

105.11 Compliance Dates 14

105.1 PURPOSE

Section 105 implements Control Technique Guidelines Reasonably Available Control Technology (CTG RACT) requirements for metal solvent degreasing operations as required by Section 182(b)(2)(A) of the Clean Air Act (the Act) under Title 42, Section 7511a of the U.S. Code (42 U.S.C. 7511a).

105.2 APPLICABILITY

(a) Except as provided under Section 105.4, Section 105 is applicable to any owner or operator of a stationary source with projected maximum emissions of volatile organic compounds (VOC) equal to or greater than 3.0 tons per calendar year from metal solvent degreasing operations when the stationary source is located:

(1) In Hydrographic Area 212 (the Las Vegas Valley) in Clark County; or

(2) In any other hydrographic area that the Administrator has designated nonattainment for ozone, and has classified as a moderate or higher ozone nonattainment area on or after January 5, 2023.

(b) Except as provided in Section 105.4, Sections 105.5(c), 105.6(c), or 105.7(c) (as applicable for degreasing operations) and Sections 105.8–105.11 are applicable to any owner or operator of a stationary source with projected maximum emissions of VOC less than 3.0 tons per calendar year from metal solvent degreasing operations when the stationary source is located:

(1) In Hydrographic Area 212 (the Las Vegas Valley) in Clark County; or

(2) In any other hydrographic area that the Administrator has designated nonattainment for ozone, and has classified as a moderate or higher ozone nonattainment area on or after January 5, 2023.

(c) Section 105 does not apply to metal solvent degreasing operations that:

(1) Use less than 500 gallons (1,892 L) of cleaning solvent per calendar year.

(2) Use only vapor-phase solder reflow units.

(3) Have a vapor-air interface area of 1.0 ft^2 (0.09 m^2) or less, with a maximum solvent capacity of 1.0 gal (3.8 L) or less, when conducting vapor degreasing operations.

105.3 DEFINITIONS

Unless the context requires otherwise, the following terms shall have the meanings set forth below for the purposes of this section. When a term is not defined, it shall have the meaning provided in Section 0 of the Clark County Air Quality Regulations (AQRs), Chapter 445B of the Nevada Revised Statutes (NRS), the Clean Air Act (the Act), or common usage, in that order of priority.

"Cleaning material" or "cleaning solvent" means a material used during cleaning activities or cleaning operations to remove residue or other unwanted materials from surfaces.

"Cold cleaner" means a batch-loaded metal solvent degreaser whose solvent is kept below its boiling point.

"Conveyorized degreaser" means a degreaser that is continuously loaded by means of a conveyor system. The solvent may be boiling or nonboiling.

"Cover" means a lid, top, or portal cover that shields the solvent cleaning machine's openings from air disturbances when in place and is designed to be easily opened and closed without disturbing the vapor zone. Air disturbances include, but are not limited to, lip exhausts, ventilation fans, and general room drafts. Types of covers include, but are not limited to, sliding, biparting, and rolltop covers.

"Emissions Control System (ECS)" means the combination of an emissions capture device and an add-on emissions control device that reduces VOC emissions and that is designed and operated in accordance with good engineering practice.

"Existing metal solvent degreasing operations" means metal solvent degreasing operations for which an owner or operator began actual construction or reconstruction before [insert rule effective date], or first constructed and operated on or after [insert rule effective date] and subsequently modified such that the metal solvent degreasing operations became subject to Section 105 after the modification.

"Freeboard height" means, for a cold cleaner, the distance from the liquid solvent level in the degreaser tank to the lip of the tank. For a vapor degreaser, it means the distance from the solvent vapor level in the tank to the lip of the tank.

"Freeboard ratio" means the freeboard height divided by the width of the degreaser.

"Material change" means a change in owner or operator, a change in location, a change in compliance method, a change to a different ECS, or an increase in either the stationary source's projected maximum emissions or its annual actual emissions of VOC above the projected maximum emissions.

"Metal solvent degreaser" means a tank, drum, or other container in which metal objects are exposed to a solvent or solvent vapors to remove contaminants. For the purpose of this rule, it includes only cold cleaners, open top vapor degreasers, and conveyorized degreasers.

"Metal solvent degreasing operations" means the operation of one or more metal solvent degreasers at a stationary source, including ancillary activities such as storing and disposal of solvent.

"New metal solvent degreasing operations" means metal solvent degreasing operations for which an owner or operator began actual construction or reconstruction on or after [insert rule effective date].

"Open top vapor degreaser" means a batch-loaded degreaser whose solvent is heated to its boiling point, creating a solvent vapor zone.

"Projected maximum emissions" means the highest annual rate, in tons per year, at which the stationary source is projected to emit VOC based on anticipated production, throughput, heat input, or material utilization rates that does not include emission reductions from add-on controls.

"Refrigerated chiller" means a second set of freeboard condenser coils located slightly above the primary condenser coils that creates a cold air blanket above the vapor zone.

"Solvent" means any substance containing an organic compound (or combination of organic compounds) that is liquid at atmospheric pressure and ambient temperature and is used as a diluent, thinner, dissolver, viscosity reducer, or cleaning agent, or other additive used for a similar purpose. It does not include substances used as fuel, antiseptics, or anesthetics.

"Solvent carryout" means solvent carried out of a degreaser that adheres to or is entrapped in the part being cleaned.

"Vapor-air interface" means the area of contact between the solvent vapors and any air that is contiguous with the air outside the degreaser. The area of the vapor-air interface shall be calculated as the product of the lengths between internal solvent cleaner walls behind the condensing coils.

"Vapor-phase solder reflow unit" means a device in which parts are immersed in VOC-rich vapor generated by boiling a liquid for heating to melt or soften solder connections of electronic components.

105.4 EXEMPTIONS

Unless and until the Control Officer objects to an owner or operator's use of an exemption in accordance with Section 105.10, metal solvent degreasing operations that meet the criteria in this section are exempt from one or more requirements of Section 105 if the

owner or operator complies with the notification, recordkeeping, and reporting requirements in Section 105.10, as applicable.

(a) Sections 105.5–105.9 (related to emissions standards, compliance obligations, and registration requirements) and Sections 105.10.1(a), 105.10.2, and 105.10.3 (related to testing notification, recordkeeping, and reporting requirements) do not apply when VOC emissions from the metal solvent degreasing operations are controlled by RACT emissions standard(s) at least as stringent as Section 105 under another applicable SIP-approved section of the AQRs.

105.5 EMISSIONS STANDARDS FOR COLD CLEANERS

An owner or operator of a cold cleaner shall meet the following requirements.

(a) Equipment and operation specifications:

(1) Assure that solvent spray is a fluid stream (not a fine, atomized, or shower-type spray) and occurs at a pressure that does not cause excessive splashing.

(2) Equip with drainage recycling so whatever solvent drains off parts removed from the cleaner will return to the cleaner.

(A) If the solvent volatility is greater than 32 mm Hg measured at 100°F (37.8°C), the recycling of solvent must occur under the cover while draining unless the cleaner cannot be fitted with internal recycling drainage capacity.

(B) If the internal recycling facility cannot be fitted, an external facility shall be used.

(3) If the solvent volatility is greater than 15 mm Hg measured at 100°F (37.8°C), or if the solvent is agitated or heated, ensure the cover is designed so the operator can easily operate it with one hand.

(b) Emission control requirements:

(1) Use at least one of the following if the solvent volatility is greater than 32 mm Hg measured at 100°F (37.8°C) or the solvent is heated above 120°F (48.9°C):

(A) Freeboard that gives a freeboard ratio of 0.75 or more;

(B) Water cover (solvent must be insoluble in and heavier than water); or

(C) An equivalent system of control or ECS, such as a refrigerated chiller or carbon adsorption.

(c) Work practice requirements:

(1) Dispose of waste, or transfer waste solvent to another party, so that no greater than 20% by weight of waste solvent evaporates into the atmosphere.

(2) Store waste solvent in covered, nonabsorbent, nonleaking containers.

(3) Employ a cover that remains closed except during parts entry and removal.

(4) Drain cleaned parts until dripping ceases (at least 15 seconds).

105.6 EMISSIONS STANDARDS FOR OPEN TOP VAPOR DEGREASERS

An owner or operator of an open top vapor degreaser shall meet the following requirements.

(a) Equipment and operation specifications:

(1) Equip with a cover that the operator can easily open and close without disturbing the vapor zone, and that completely covers the solvent tank when work is not performed in the degreaser.

(2) Equip with the following safety switches:

(A) Condenser flow switch and thermostat to shut off sump heat if condenser coolant is either not circulating or too warm;

(B) Spray safety switch to shut off spray pump if vapor level drops more than 4 inches (10.2 cm) below the bottom condenser coil to prevent spraying above the vapor level; and

(C) Vapor level control thermostat that shuts off sump heat if the vapor zone rises above the design level.

(3) Use sprays that have a pressure low enough to prevent splashing outside the tank, provide a continuous liquid flow (rather than a fine atomized or shower-type spray), and are located below the vapor-air interface.

(4) Maintain exhaust ventilation at or below 65 cubic feet per minute per square foot (cfm/ft^2) of degreaser area unless necessary to

meet Occupational Safety and Health Administration (OSHA) or control device requirements.

(b) Emissions control requirements:

(1) Use one or more of the following:

(A) Freeboard with freeboard ratio of 0.75 or more (if the degreaser opening is more than 10 ft^2, use powered or mechanically assisted cover);

(B) Refrigerated chiller;

(C) Enclosed design so the cover or door opens only when the dry part enters or exits the degreaser;

(D) Carbon adsorption system with ventilation greater than or equal to 50 cfm/ft^2 of air/vapor interface area (if cover is open) that is exhausting less than 25 ppm of solvent by volume averaged over one complete adsorption cycle; or

(E) Other ECS demonstrated to have equivalent or better performance than any requirement in paragraphs (b)(1)(A)–(D) of this section.

(c) Work practice requirements:

(1) Employ a cover that remains closed except during parts entry and removal.

(2) Minimize solvent carryout using the following measures:

(A) Rack parts so that entrainment of solvent is avoided and full drainage is accomplished.

(B) Move parts in and out of the degreaser at a vertical speed of less than 11 ft (3.4 m) per minute.

(C) Degrease the workload in the vapor zone until condensation ceases (at least 30 seconds).

(D) Tip out any pools of solvent on the cleaned parts before removal.

(E) Dry parts within the degreaser above the vapor zone until visually dry (at least 15 seconds).

(F) Removal of the part(s) should not cause the vapor level to drop more than 4 inches (10 cm).

(3) Prohibit degreasing of porous or absorbent materials, such as cloth, leather, wood, or rope.

(4) Avoid workloads that occupy more than half of the degreaser's open top area.

(5) Avoid spraying above the vapor level.

(6) Repair solvent leaks immediately or shut down the degreaser.

(7) Dispose of waste, or transfer waste solvent to another party, so that no more than 20% by weight of waste solvent evaporates into the atmosphere.

(8) Store waste solvent in covered, nonabsorbent, nonleaking containers.

(9) Avoid using ventilation fans near the degreaser opening except as necessary for workplace safety.

(10) Avoid visually detectable water in the solvent exiting the water separator.

105.7 EMISSIONS STANDARDS FOR CONVEYORIZED DEGREASERS

An owner or operator of a conveyorized degreaser shall meet the following requirements.

(a) Equipment and operation specifications:

(1) Equip and maintain downtime covers for closing off entrances and exits of the degreaser immediately after the conveyor and exhaust are shut down until the degreaser is restarted.

(2) Equip with a drying tunnel or other means (such as rotating baskets) sufficient to prevent cleaned parts from carrying out solvent liquid or vapor.

(3) Minimize openings such that entrances and exits silhouette workloads so the average clearance between the largest parts and the edge of the degreaser opening is less than either 4 inches (10.2 cm) or 10% of the width of the opening.

(4) Maintain exhaust ventilation at or below 65 cfm/ft^2 of degreaser area unless necessary to meet OSHA or control device requirements.

(5) If using a vapor type of conveyorized degreaser, equip with the following safety switches:

(A) Condenser flow switch and thermostat to shut off sump heat if condenser coolant is either not circulating or too warm;

(B) Spray safety switch to shut off spray pump if the vapor level drops more than 4 inches (10.2 cm) below the bottom condenser coil to prevent spraying above the vapor level; and

(C) Vapor level control thermostat that shuts off sump heat if the vapor zone rises above the design level.

(b) Emissions control requirements:

(1) Use either a drying tunnel or another means (such as a rotating basket) to prevent cleaned parts from carrying out solvent liquid or vapor.

(2) Use at least one of the following if the degreaser has an air/solvent interface area or an air/vapor interface area of 20 ft^2 (1.9 m^2) or more:

(A) Refrigerated chiller;

(B) Carbon adsorption system with ventilation greater than or equal to 50 cfm/ft^2 of air/vapor interface area (when downtime covers are open) and exhausting less than 25 ppm of solvent by volume averaged over a complete adsorption cycle; or

(C) Other ECS demonstrated to have equivalent or better performance than any requirement in paragraphs (b)(2)(A) or (B) of this section.

(c) Work practice requirements:

(1) Minimize solvent carryout using the following measures:

(A) Rack parts so that entrainment of solvent is minimized and full drainage is accomplished.

(B) Move parts in and out of the degreaser at a vertical speed of less than 11 ft (3.4 m)/min.

(2) Dispose of waste, or transfer waste solvent to another party, so that no greater than 20% by weight of waste solvent evaporates into the atmosphere.

(3) Store waste solvent in covered, nonabsorbent, nonleaking containers.

(4) Avoid using ventilation fans near the degreaser opening except as necessary for workplace safety.

(5) Avoid visually detectable water in the solvent exiting the water separator.

(6) Repair solvent leaks immediately or shut down the degreaser.

105.8 COMPLIANCE OBLIGATIONS

To demonstrate compliance with the emissions standards in Section 105, an owner or operator of metal solvent degreasing operations shall:

(a) Conduct periodic (at least quarterly) inspections to assure compliance with applicable work practice requirements in Sections 105.5–105.7.

(b) Provide operator training to newly hired workers on the applicable work practice requirements in Sections 105.5–105.7.

(c) Post the applicable work practice requirements in Sections 105.5–105.7 on or near the cleaner in a permanent and conspicuous manner.

105.8.1 Compliance When Using an Emissions Control System

An owner or operator of metal solvent degreasing operations using an ECS shall:

(a) Develop, maintain, and comply with an operations and maintenance plan, in accordance with manufacturer recommendations where available, if using an ECS to comply with Sections 105.5(b), 105.6(b), and/or 105.7(b). Such plan shall:

(1) Identify monitoring devices, monitoring frequencies, and key system operating parameters, i.e., those needed to ensure that good operation and engineering practices are associated with operation of the ECS, such as temperature, pressure, and/or flow rate.

(2) Include schedules for inspection, schedules for anticipated ongoing maintenance, and proposed recordkeeping practices regarding the key system operating parameters.

(3) Include a monitoring plan to ensure proper operation of the ECS using the key operating parameters identified.

(4) Include provisions for minimizing emissions during periods of startup, shutdown, and malfunction.

(5) Determine the control efficiency of the ECS, excluding chillers, used to comply with Section 105 through manufacturer design specifications or performance testing. The following reference materials may assist in determining the control efficiency of the ECS:

(A) "Guidelines for Determining Capture Efficiency," EPA Office of Air Quality Planning and Standards, January 9, 1995.

(B) EPA Test Methods 1–4 in 40 CFR Part 60, Appendices A–1 through A–3, to determine flow rates.

(C) "Method 204–Criteria for and Verification of a Permanent or Temporary Total Enclosure," at 40 CFR Part 51, Appendix M; or, as applicable, EPA Test Methods 204A, 204B, 204C, or 204D.

(D) "Method 18–Measurement of Gaseous Organic Compound Emissions by Gas Chromatography," at 40 CFR Part 60, Appendix A–6.

(E) "Method 25–Determination of Total Gaseous Nonmethane Organic Emissions as Carbon," at 40 CFR Part 60, Appendix A–7, or, as applicable, EPA Test Methods 25A or 25B.

(b) Install, calibrate, operate, and maintain monitoring devices on an ECS used to comply with Section 105 according to manufacturer specifications and the operations and maintenance plan.

(c) Operate the monitoring devices required by paragraph (b) of this section at all times an ECS operates.

105.9 REGISTRATION REQUIREMENTS

An owner or operator of metal solvent degreasing operations shall comply with the registration requirements of this section, as indicated below.

(a) Except as provided in paragraph (d) of this section, an owner or operator of metal solvent degreasing operations shall comply with the following registration requirements:

(1) No later than [insert date180 days after rule effective date] or 45 days after becoming subject to any requirements in Section 105, whichever is later, submit a registration application to the Control

Officer in the manner and form prescribed that includes, at a minimum, the following information:

(A) Name, email address, and telephone number of the owner or operator and the Responsible Official;

(B) Company name and address (and source name and address, if different);

(C) Type of metal degreaser(s) used;

(D) Projected maximum emissions of VOC (in tons per calendar year) from metal solvent degreasing operations at the stationary source;

(E) Calculations to support the values reported in paragraph (a)(1)(D) of this section;

(F) Type of ECS used to comply with Section 105, if any;

(G) Copy of the ECS operations and maintenance plan developed to comply with Section 105.8.1, if required;

(H) A declaration signed by the Responsible Official under penalty of perjury that the statements and information in the registration are true, accurate, and complete. Signature on the declaration statement shall subject the Responsible Official to liability for perjury under NRS 199.145; and

(I) Other information as required by the Control Officer.

(2) Submit an updated registration to the Control Officer within 60 days of a material change.

(b) The Control Officer may require updated information after the initial registration to determine that the source continues to operate below the applicability threshold in Section 105.2(a).

(c) Owners or operators may submit a revised registration application with reduced projected maximum emissions from metal solvent degreasing operations at the stationary source if less than 3.0 tons of VOC were emitted and reported in each of the previous three consecutive calendar years.

(d) In lieu of complying with the registration requirements of Section 105.9, but by the deadlines established in paragraph (a)(1), a stationary source regulated by a minor source permit, an authority to construct permit, or a Part 70 operating permit shall apply for a permit revision

to incorporate Section 105 requirements in accordance with the requirements in Sections 12.1, 12.4, and 12.5.

105.10 NOTIFICATION, RECORDKEEPING, AND REPORTING REQUIREMENTS

An owner or operator of metal solvent degreasing operations shall comply with the notification, recordkeeping, and reporting requirements of this section, as indicated below. The Control Officer may deny exemption use or applicability status upon finding that the metal solvent degreasing operation does not meet the eligibility criteria for exemption(s) or applicability, the stationary source has a poor regulatory compliance history, or the RACT emissions standard does not provide comparable emission reductions to Section 105.

105.10.1 Notification Requirements

(a) Owners or operators using a performance test to determine the control efficiency of an ECS to comply with Section 105 shall comply with the following requirements and with the compliance dates in Section 105.11:

(1) Conduct a performance test within 180 days of initial operation of the ECS or [insert date 180 days after rule effective date], whichever is later.

(2) Submit a performance testing protocol to the Control Officer in accordance with department guidelines containing test, reporting, and notification schedules, test protocols, and anticipated test dates at least 45 days, but no more than 90 days, before the anticipated test date.

(3) Submit a report to the Control Officer in accordance with department guidelines describing the results of a performance test within 60 days of completing the test.

(b) Owners or operators relying on the exemption in Section 105.4(a) shall submit a notice to the Control Officer that identifies the exemption claimed by the owner or operator within 30 days of the applicable compliance date in Section 105.11.

105.10.2 Recordkeeping Requirements

An owner or operator of metal solvent operations shall comply with the following recordkeeping requirements.

(a) Owners or operators required to comply with Section 105 shall, at a minimum:

(1) Maintain records to document eligibility for applicability thresholds or for any exemption claimed under Section 105.4.

(2) Retain all records for a period of five years from their creation.

(3) Make records available and producible onsite to the Control Officer's authorized representative upon request and without prior notice during the owner or operator's hours of operation.

(4) Each month, record the type and amount of cleaning material used in the previous month. The owner or operator may track the actual use of cleaning material or use purchase and inventory records (assuming that all purchases not retained in inventory are used).

(5) Maintain a list of cleaning materials used that includes, at a minimum:

(A) Material name and manufacturer for each material used in a metal solvent degreaser;

(B) VOC content of each cleaning material, listed as lb/gal or g/L of VOC, along with density and mixed ratios for each component; and

(C) Initial boiling point of a cleaning material if a refrigerated freeboard chiller is used.

(6) Maintain a record of calendar year emission calculations.

(b) Owners or operators subject to equipment and operation specification requirements in Sections 105.5–105.7 shall comply with the following:

(1) Maintain records showing that the degreaser complies with the applicable equipment specification requirements in Sections 105.5–105.7.

(c) Owners or operators using an ECS to comply with Section 105 shall comply with the following:

(1) Maintain a record of monitoring of the key system operating parameters specified in the operations and maintenance plan.

(2) Record and maintain monitoring data collected to comply with Section 105.8.1(b).

(d) Owners or operators required to comply with applicable work practice requirements in Sections 105.5–105.7 and compliance obligations in Section 105.8 shall maintain inspection and training logs.

105.10.3 Reporting Requirements

(a) Owners or operators subject to Section 105.2(a) shall complete and submit to the Control Officer an annual emissions inventory for VOCs in the manner and form prescribed.

(b) The inventory must be submitted to and received by the department on or before March 31 of each year (or other specified date upon prior notice from the Control Officer), and shall include emission factors and calculations used to determine emissions in the previous calendar year.

(c) The inventory shall include, at a minimum:

(1) Actual annual emissions of VOC (in tons per calendar year) for the previous calendar year from metal solvent degreasing operations at the stationary source; and

(2) Calculations to support the values reported in paragraph (c)(1) of this section.

(d) Any information submitted pursuant to this section shall contain a certification by the Responsible Official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the information in the statement or inventory is true, accurate, and complete.

105.11 COMPLIANCE DATES

(a) Except as provided in paragraphs (c)–(d) of this section, an owner or operator of existing metal solvent degreasing operations shall comply with the requirements in Section 105 by [insert date 180 days after rule effective date], or by the date the metal solvent degreasing operations first begin normal operations or meet the applicability criteria in Section 105.2, whichever of the three dates is later.

(b) An owner or operator of new metal solvent degreasing operations shall comply with Section 105 upon commencing normal operations.

(c) An owner or operator of existing metal solvent degreasing operations who elects to comply with Section 105 by installing a new ECS, including a carbon adsorber or refrigerated chiller, must comply with the emission control requirements of Sections 105.5(b), 105.6(b), or

105.7(b), as applicable for the type of metal solvent degreaser, no later than [insert date 540 days after rule effective date].

(d) The Control Officer may establish an alternative compliance date for meeting Sections 105.5–105.7 not later than [insert date three years after rule effective date], considering the technical feasibility and time needed to comply, through issuance of a minor source permit or an authority to construct permit, or by revising a Part 70 operating permit. The filing of a complete application for a minor source permit, authority to construct permit, or Part 70 significant permit revision requesting an alternative compliance date stays the compliance date in paragraph (a) of this section until the proposed alternative compliance date, or until the Control Officer denies the request or issues the minor source permit, authority to construct permit, or revised Part 70 operating permit.

History: Adopted Month DD, YYYY.