5 August 2014

Mr. Xavier Vargas
Plant Manager
Honeywell Safety Products USA, Inc.
10 Thurber Boulevard
Smithfield, RI 02917

Dear Mr. Vargas:

The Department of Environmental Management, Office of Air Resources has reviewed and approved your application for the installation of process equipment at your 10 Thurber Boulevard, Smithfield facility.

Enclosed is a minor source permit issued pursuant to our review of your application (Approval Nos. 2260).

The Office of Air Resources is in receipt of your notification of 27 January 2014 pertaining to a change in the name of your facility located at 10 Thurber Boulevard, Smithfield, RI from Sperian Eye & Face Protection, Incorporated to Honeywell Safety Products USA, Incorporated.

If there are any questions concerning this permit, please contact me by phone at 401-222-2808, extension 7028 or by email at aleida.whitney@dem.ri.gov.

Sincerely,

Aleida M. Whitney
Senior Air Quality Specialist
Office of Air Resources

cc: Smithfield Building Official
Suzanne Persyn, ENVIRON

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES

MINOR SOURCE PERMIT

HONEYWELL SAFETY PRODUCTS USA, INC.

APPROVAL NO. 2260

Pursuant to the provisions of Air Pollution Control Regulation No. 9, this minor source permit is issued to:

Honeywell Safety Products USA, Inc.

For the following:

The operation of surface coating equipment consisting of dip coating lines, flow coating lines, electric curing ovens, and automatic aqueous washers for the coating of plastic parts and products (Approval No. 2260).

Located at: *10 Thurber Boulevard, Smithfield*

This permit shall be effective from the date of its issuance and shall remain in effect until revoked by or surrendered to the Department. This permit does not relieve *Honeywell Safety Products USA, Inc.* **from compliance with applicable state and federal air pollution control rules and regulations. The design, construction and operation of this equipment shall be subject to the attached permit conditions and emission limitations.**

Douglas L. McVay, Chief
Office of Air Resources

Date of issuance

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES

Permit Conditions and Emission Limitations

HONEYWELL SAFETY PRODUCTS USA, INC.

APPROVAL NO. 2260

A. Emission Limitations

1. Isopropyl alcohol (IPA)

   a. The total quantity of IPA emissions discharged to the atmosphere from the entire facility shall not exceed 11.1 pounds per hour.

2. Toluene

   a. The total quantity of toluene emissions discharged to the atmosphere from the entire facility shall not exceed 1.0 pound per hour.

   b. The total quantity of toluene emissions discharged to the atmosphere from the entire facility shall not exceed 4,000 pounds in any consecutive 12-month period.

3. Volatile Organic Compounds (VOCs)

   a. The VOC content of each optical coating used by the owner/operator on plastic parts and products shall not exceed 6.7 pounds of VOC per gallon of coating, minus water, as applied. The term optical coating shall mean a coating applied to an optical lens.

   b. The total quantity of VOC emissions discharged to the atmosphere from the entire facility shall not exceed 8167 pounds of VOC per calendar month based upon a 12-month rolling average.

4. Hazardous Air Pollutants (HAPs)

   a. The total quantity of HAP emissions discharged to the atmosphere from the entire facility shall not exceed 1500 pounds of any one (1) HAP or 4000 pounds of any combination of HAPs per calendar month based upon a 12-month rolling average. Hazardous Air Pollutant shall mean an air pollutant which has been listed pursuant to Section 112(b) of the Clean Air Act Amendments of 1990.

b. The owner/operator shall demonstrate that, based on the coatings, thinners, and/or other additives, and cleaning materials used in the coating operations, the organic HAP emission rate for the coating operations is less than or equal to 0.16 kg (lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period and calculated as a rolling 12-month emission rate and determined on a monthly basis.

5. Listed Toxic Air Contaminants

The total quantity of emissions discharged to the atmosphere from the entire facility, of any listed toxic air contaminant, with the exception of isopropyl alcohol and toluene shall not exceed the minimum quantity for that contaminant as specified in Appendix A of Air Pollution Control Regulation No. 9, during a calendar year. Emissions from activities exempted from the provisions of APC Regulation No. 22 in subsection 22.2.2 are not included in this limitation.

6. Odors

Any air contaminant or combination of air contaminants discharged to the atmosphere from the facility shall not create an objectionable odor beyond the property line of this facility. Odor evaluations shall be conducted according to the provisions of Air Pollution Control Regulation No. 17.

B. Operating Requirements

1. All materials containing VOCs, HAPs and/or Listed Toxic Air Contaminants shall be stored in containers that are closed at all times except when material is being added or removed.

C. Compliance Determination

1. VOC Content of Coating As-Supplied

a. For a coating that is not formulated on-site by thinning or mixing with another material ("as-supplied"), the VOC content of the coating shall be determined by documentation furnished by the coating supplier or an outside laboratory that provides the VOC content, water content, exempt compounds content, solids content and density of the coating.

b. VOC, water, exempt compounds and solids content, by weight, of as-supplied coatings shall be determined with EPA Method 24 or an alternative procedure approved by EPA and the Office of Air Resources. Sampling procedures shall follow the guidelines presented in "Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A", EPA-340/1-91-010.

c. If the owner/operator uses a coating that does not release VOC reaction by products during the cure; for example, if all VOC is solvent; the owner/operator may request permission to use batch formulation information to determine VOC content. If the VOC content of a coating determined by an EPA Method 24 test is greater than that indicated by the formulation data, the EPA Method 24 test shall govern.

2. VOC Content of Coatings Formulated On-Site

a. For a coating that is formulated on-site (by thinning or mixing with another material), the VOC content of the coating shall be determined by:

(1) Maintaining batch formulation information documenting the VOC content of the coating; or,

(2) Using EPA Method 24 or an alternative procedure approved by EPA and the Office of Air Resources. Sampling procedures shall follow the guidelines presented in "Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A," EPA-340/1-91-010.

b. If the VOC content of a coating determined by an EPA Method 24 test is greater than that indicated by the facility's formulation data, the EPA Method 24 test shall govern.

3. Hazardous Air Pollutants (HAPs)

To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, determined according Conditions C.3(a-g) of this permit, must be less than or equal to the emission limitation specified in Condition A.4.b of this permit. A compliance period consists of 12 months. Each month is the end of a compliance period consisting of that month and the preceding 11 months. The owner/operator shall perform the calculations in Conditions C.3(a-g) on a monthly basis using the data from the previous 12 months of operation.

a. *Determine the mass fraction of organic HAP for each material.* Determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each month according to one of the following requirements:

(1) *Method 311 (Appendix A to 40 CFR Part 63).* The owner/operator may use Method 311 for determining the mass fraction of organic HAP. Use the following procedures when performing a Method 311 test:

(a) Count each organic HAP that is measured to be present at 0.1 percent by mass or more for Occupational Safety and

Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, the owner/operator does not have to count it. Express the mass fraction of each organic HAP the owner/operator counted as a value truncated to four places after the decimal point (*e.g.*, 0.3791).

(b) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (*e.g.*, 0.763).

(2) *Method 24 (Appendix A to 40 CFR Part 60).* For coatings, the owner/operator may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, the owner/operator may use the alternative method contained in Appendix A of this permit, rather than Method 24. The owner/operator may use the volatile fraction that is emitted, as measured by the alternative method in Appendix A of this permit, as a substitute for the mass fraction of organic HAP.

(3) *Alternative method.* The owner/operator may use an alternative test method for determining the mass fraction of organic HAP once the Office of Air Resources and USEPA has approved it. The owner/operator must follow the procedure in 40 CFR 63.7(f) to submit an alternative test method for approval.

(4) *Information from the supplier or manufacturer of the material.* The owner/operator may rely on information other than that generated by the test methods specified in Conditions C.3.a(1-3) of this permit, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, the owner/operator does not have to count it. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, the owner/operator may rely on manufacturer's data that expressly states the organic HAP or volatile matter mass fraction emitted. If there is a disagreement between such information and results of a test conducted as specified in Conditions C.3.a(1-3) of this permit, then the test method results will take precedence unless, after consultation, the owner/operator demonstrates to the satisfaction of

the Office of Air Resources and USEPA that the formulation data are correct.

(5) *Solvent blends.* Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, the owner/operator may use the default values for the mass fraction of organic HAP in these solvent blends listed in Appendix B or C of this permit. If the owner/operator uses the tables, the owner/operator must use the values in Appendix B for all solvent blends that match Appendix B entries according to the instructions for Appendix B, and the owner/operator may use Appendix C only if the solvent blends in the materials do not match any of the solvent blends in Appendix B and the owner/operator knows only whether the blend is aliphatic or aromatic. However, if the results of a Method 311 (Appendix A to 40 CFR Part 63) test indicate higher values than those listed in Appendix B or C of this permit, the Method 311 results will take precedence unless, after consultation, the owner/operator demonstrates to the satisfaction of the Office of Air Resources and USEPA that the formulation data are correct.

b. *Determine the mass fraction of coating solids.* The owner/operator must determine the mass fraction of coating solids [kg (lb) of coating solids per kg (lb) of coating] for each coating used during the compliance period (i) by a test, (ii) by information provided by the supplier or the manufacturer of the material, or (iii) by calculation, as specified in paragraphs b(1) through (3) of this section.

(1) *Method 24 (Appendix A to 40 CFR Part 60).* Use Method 24 for determining the mass fraction of coating solids. For reactive adhesives in which some of the liquid fraction reacts to form solids, the owner/operator may use the alternative method contained in Appendix A of this permit, rather than Method 24, to determine the mass fraction of coating solids.

(2) *Alternative method.* The owner/operator may use an alternative test method for determining the solids content of each coating once the Office of Air Resources and USEPA have approved it. The owner/operator must follow the procedure in 40 CFR 63.7(f) to submit an alternative test method for approval.

(3) *Information from the supplier or manufacturer of the material.* The owner/operator may obtain the mass fraction of coating solids for each coating from the supplier or manufacturer. If there is disagreement between such information and the test method

results, then the test method results will take precedence unless, after consultation, the owner/operator demonstrates to the satisfaction of the Office of Air Resources and USEPA that the formulation data are correct.

c. *Determine the density of each material.* Determine the density of each liquid coating, thinner and/or other additive, and cleaning material used during each month from one of the following methods: 1) test results using ASTM Method D1475–98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see 40 CFR 63.14); 2) information from the supplier or manufacturer of the material; or 3) reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475–98 and other such information sources, the test results will take precedence unless, after consultation, the owner/operator demonstrates to the satisfaction of the Office of Air Resources and the USEPA that the formulation data are correct. If the owner/operator purchases materials or monitors consumption by weight instead of volume, material density does not need to be determined. Instead, the owner/operator may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C, and 2 of this section.

d. *Determine the volume of each material used.* Determine the volume (liters) of each coating, thinner and/or other additive, and cleaning material used during each month by measurement or usage records. If the owner/operator purchases materials or monitors consumption by weight instead of volume, the volume of each material used does not need to be determined. Instead, the owner/operator may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C, and 2 of this section.

e. *Calculate the mass of organic HAP emissions.* The mass of organic HAP emissions is the combined mass of organic HAP contained in all coatings, thinners and/or other additives, and cleaning materials used during each month minus the organic HAP in certain waste materials. Calculate the mass of organic HAP emissions using Equation 1 of this section.

$$H_e = A + B + C - R_w \quad (Eq.\ 1)$$

Where:

H_e = Total mass of organic HAP emissions during the month, kg.

A = Total mass of organic HAP in the coatings used during the month, kg, as calculated in Equation 1A of this section.

B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg, as calculated in Equation 1B of this section.

C = Total mass of organic HAP in the cleaning materials used during the month, kg, as calculated in Equation 1C of this section.

R_w = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste treatment, storage and disposal facility (TSDF) for treatment or disposal during the month, kg, determined according to paragraph e(4) of this section. (R_W may be assigned a value of zero if the owner/operator does not wish to use this allowance)

(1) Calculate the kg organic HAP in the coatings used during the month using Equation 1A of this section:

$$A = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \qquad (Eq.\ 1A)$$

Where:

A = Total mass of organic HAP in the coatings used during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$D_{c,i}$ = Density of coating, i, kg coating per liter coating.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating. For reactive adhesives as defined in 40 CFR 63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in Appendix A of this permit.

m = Number of different coatings used during the month.

(2) Calculate the kg of organic HAP in the thinners and/or other additives used during the month using Equation 1B of this section:

$$B = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad (Eq.\ 1B)$$

Where:

B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg.

$Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month, liters.

$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in 40 CFR 63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in Appendix A of this permit.

n = Number of different thinners and/or other additives used during the month.

(3) Calculate the kg organic HAP in the cleaning materials used during the month using Equation 1C of this section:

$$C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad (Eq.\ 1C)$$

Where:

C = Total mass of organic HAP in the cleaning materials used during the month, kg.

$Vol_{s,k}$= Total volume of cleaning material, k, used during the month, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg organic HAP per kg material.

p = Number of different cleaning materials used during the month.

(4) If the owner/operator chooses to account for the mass of organic HAP contained in waste materials sent or designated for shipment to a TSDF in Equation 1 of Condition C.3.e of this permit, then the mass must be determined according to Conditions C.3.e(4)(a-d) of this section.

(a) Include in the determination only waste material that is generated by coating operations for which the owner/operator used Equation 1 of Condition C.3.e of this permit and that will be treated or disposed of by a facility that is regulated as a TSDF under 40 CFR Part 262, 264, 265 or 266. The TSDF may be either off-site or on-site. The owner/operator may not include organic HAP contained in wastewater.

(b) Determine either the amount of the waste materials sent to a TSDF during the month or the amount collected and stored during the month and designated for future transport to a TSDF. Do not include in the determination any waste materials sent to a TSDF during a month if it has already been included in the amount collected and stored during that month or a previous month.

(c) Determine the total mass of organic HAP contained in the waste materials specified in Condition C.3.e(4)(b) of this permit.

(d) Document the methodology used to determine the amount of waste materials and the total mass of organic HAP they contain, as required in Condition D.1.m of this permit. If waste manifests include this information, they may be used as part of the documentation of the amount of waste materials and mass of organic HAP contained in them.

f. *Calculate the total mass of coating solids used.* Determine the total mass of coating solids used, kg, which is the combined mass of coating solids for all the coatings used during each month, using Equation 2 of this section:

$$M_{st} = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{s,i}) \qquad (Eq.\ 2)$$

Where:

M_{st} = Total mass of coating solids used during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$D_{c,i}$ = Density of coating, i, kg per liter coating, determined according to Condition C.3.c of this permit.

$M_{s,i}$ = Mass fraction of coating solids for coating, i, kg solids per kg coating, determined according to Condition C.3.b of this permit.

m = Number of coatings used during the month.

g. *Calculate the organic HAP emission rate.* Calculate the organic HAP emission rate for the compliance period, kg (lb) organic HAP emitted per kg (lb) coating solids used, using Equation 3 of this section:

$$H_{yr} = \frac{\sum_{y=1}^{n} H_e}{\sum_{y=1}^{n} M_{st}} \qquad (Eq.\ 3)$$

Where:

H_{yr} = Average organic HAP emission rate for the compliance period, kg organic HAP emitted per kg coating solids used.

H_e = Total mass of organic HAP emissions from all materials used during month, y, kg, as calculated by Equation 1 of this section.

M_{st} = Total mass of coating solids used during month, y, kg, as calculated by Equation 2 of this section.

y = Identifier for months.

n = Number of full or partial months in the compliance period (for the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13; for all following compliance periods, n equals 12).

4. If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit specified in A.4.b of this permit, this is a deviation from the emission limitation for that compliance period and must be reported as specified in Condition D.14.g of this permit.

5. As part of each semiannual compliance report required by Condition D.13 of this permit, the owner/operator shall identify the coating operation(s) for which the owner/operator used the emission rate without add-on controls option. If there were no deviations from the emission limitations, the owner/operator must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit specified in A.4.b of this permit, determined according to Conditions C.3(a-g) of this permit.

D. Record Keeping and Reporting

1. The owner/operator shall maintain all of the following information each month:

   a. The name, identification number and amount used of each coating, as applied.

b. The name, identification number and amount of each material containing VOCs, HAPs and/or Listed Toxic Air Contaminants used at the facility.

c. For each coating, thinner and/or other additive and cleaning material used, the VOC content in pounds of VOC per gallon of coating (excluding water and exempt compounds), as applied.

d. For each coating, thinner and/or other additive, and cleaning material used during surface coating operations, the HAP content in pounds of HAP per gallon of coating and pounds of HAP per pound of coating solids (excluding water and exempt compounds), as applied.

e. A material safety data sheet (MSDS) for each material containing VOC, HAP and/or Listed Toxic Air Contaminants used at the facility, showing the VOC, HAP and Listed Toxic Air Contaminant content.

f. A copy of each notification and report that is submitted to comply with 40 CFR 63 Subpart PPPP, and the documentation supporting each notification and report.

g. A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner and/or other additive, and cleaning material, and the mass fraction of coating solids for each coating. If the owner/operator conducted testing to determine mass fraction of organic HAP, density, or mass fraction of coating solids, the owner/operator shall keep a copy of the complete test report. If the owner/operator used information provided by the manufacturer or supplier of the material that was based on testing, the owner/operator shall keep the summary sheet of results provided by the manufacturer or supplier. The owner/operator is not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

h. A record of the coating operations on which the owner/operator used each compliance option and the time periods (beginning and ending dates and times) for each option the owner/operator used.

i. A record of the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1, 1A through 1C, and 2 of this permit and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to Condition C.3.d.4 of this permit; the calculation of the total mass of coating solids used each month using Equation 2 of this permit; and the calculation of each 12-month organic HAP emission rate using Equation 3 of this permit.

j. A record of the name and mass of each coating, thinner and/or other additive, and cleaning material used during each compliance period.

k. A record of the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each compliance period.

l. A record of the mass fraction of coating solids for each coating used during each compliance period.

m. If Equation 1 of this permit was used to determine an allowance for organic HAP contained in waste materials sent to or designated for shipment to a TSDF according to Condition C.3.e(4) of this permit, the owner/operator must keep records of the information specified in paragraphs (1) through (3) of this section:

(1) The name and address of each TSDF to which the owner/operator sent waste materials for which the owner/operator used an allowance in Equation 1 of this permit; a statement of which subparts under 40 CFR Parts 262, 264, 265 and 266 apply to the facility; and the date of each shipment.

(2) Identification of the coating operations producing waste materials included in each shipment and the month or months in which the owner/operator used the allowance for these materials in Equation 1 of this permit.

(3) The methodology used in accordance with Condition C.3.e(4) of this permit to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifests for each shipment.

n. The owner/operator shall keep records of the date, time, and duration of each deviation.

2. The owner/operator shall, on a monthly basis, no later than 15 days after the first of the month, determine the total quantity of IPA and toluene discharged to the atmosphere from the entire facility. Hourly emission averages shall be calculated for each pollutant based on the monthly emission and monthly facility operating hours. These hourly averages shall be used for comparison to emission limitations. Monthly and 12-month rolling averages shall be calculated for toluene. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.

3. The owner/operator shall notify the Office of Air Resources in writing, within 15 days of determining that the total quantity of IPA emissions discharged to the atmosphere from the entire facility exceeds 11.1 pounds per hour.

4. The owner/operator shall notify the Office of Air Resources in writing, within 15 days of determining that the total quantity of toluene emissions discharged to the atmosphere from the entire facility exceeds 1.0 pound per hour and/or 4,000 pounds in any consecutive 12-month period.

5. The owner/operator shall, on a monthly basis, no later than the last day of the following month, determine the total quantity of VOC discharged to the atmosphere from all operations at the entire facility. Monthly and 12-month rolling averages shall be calculated. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.

6. The owner/operator shall notify the Office of Air Resources in writing, within 15 days of determining that the total quantity of VOCs discharged to the atmosphere from all operations at this facility exceeds 8,167 pounds per calendar month (12-month rolling average).

7. The owner/operator shall, on a monthly basis, no later than 15 days after the first of the month, determine VOC content of each optical coating used on plastic parts and products, in pounds of VOC per gallon coating, minus water, as applied.

8. The owner/operator shall notify the Office of Air Resources in writing, within 15 days of determining that the VOC content of any optical coating used on plastic parts and products exceeded 6.7 pounds of VOC per gallon coating, minus water, as applied. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.

9. The owner/operator shall, on a monthly basis, no later than the last day of the following month, determine the total quantity of HAP emissions discharged to the atmosphere from all operations at the entire facility. Monthly and 12-month rolling averages shall be calculated. The 12-month rolling average shall be used for comparison with emission limitations. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.

10. The owner/operator shall notify the Office of Air Resources in writing, within 15 days of determining that the total quantity of HAP emissions discharged to the atmosphere from all operations at this facility exceeds 1,500 pounds of any one (1) HAP or 4,000 pounds of any combination of HAPs per calendar month (12-month rolling average).

11. The owner/operator shall, for each calendar year, determine the total quantity of each listed toxic air contaminant in Appendix A of Air Pollution Control

Regulation No. 9 discharged to the atmosphere from all operations at the entire facility, excluding IPA and toluene. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.

12. The owner/operator shall notify the Office of Air Resources in writing, within 15 days of determining that the total quantity of emissions discharged to the atmosphere from the entire facility, of any listed toxic air contaminant, excluding IPA and toluene, exceeds the minimum quantity for that contaminant as specified in Appendix A of Air Pollution Control Regulation No. 9. In accordance with Air Pollution Control Regulation No 22, this notification shall be included in the annual air pollution inventory.

13. The owner/operator shall submit semiannual compliance reports to the Office of Air Resources and USEPA.

    a. Each compliance report must cover the applicable semiannual reporting period from January 1 through June 30 or July 1 through December 31.

    b. Each compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

14. The semiannual compliance report must include the following information:

    a. Company name and address.

    b. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

    c. Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

    d. Identification of the compliance option or options specified in 40 CFR 63.4491 that were used on each coating operation during the reporting period. If the owner/operator switched between compliance options during the reporting period, the owner/operator must report the beginning and ending dates for each option used.

    e. The calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period for the emission limitation specified in Condition A.4.b of this permit.

f. If there were no deviations from the emission limitation specified in Condition A.4.b of this permit, then the semiannual compliance report must include a statement that there were no deviations from the emission limitation during the reporting period.

g. If there was a deviation from the emission limitation specified in Condition A.4.b of this permit, the semiannual compliance report must contain the information in paragraphs (1) through (3) of this section:

(1) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in Condition A.4.b of this permit

(2) The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. The owner/operator shall submit the calculations for Equations 1, 1A through 1C, 2 and 3 specified in Section C of this permit; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to Condition C.3.e(4) of this permit. The owner/operator need not submit background data supporting these calculations (e.g. information provided by materials suppliers or manufacturers, or test reports).

(3) A statement of the cause of each deviation.

15. The owner/operator shall notify the Office of Air Resources in writing of any planned physical or operational change to any equipment that would:

a. Change the representation of the facility in the application.

b. Alter the applicability of any state or federal air pollution rules or regulations.

c. Result in the violation of any terms or conditions of this permit.

d. Qualify as a modification under APC Regulation No. 9.

Such notification shall include:

- Information describing the nature of the change.

- Information describing the effect of the change on the emission of any air contaminant.

- The scheduled completion date of the planned change.

Any such change shall be consistent with the appropriate regulation and have the prior approval of the Director.

16. At least 30 calendar days before changing the method of compliance for 40 CFR 63, Subpart PPPP, National Emission Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products from the emission rate without add-on controls option to the compliant materials option or emission rate with add-on controls option, the owner/operator shall provide written notification to the Office of Air Resources of the planned change. Upon changing the method of compliance from emission rate without add-on controls to the compliant materials option or emission rate with add-on controls option, the owner or operator shall comply with all requirements of 40 CFR 63, Subpart PPPP applicable to surface coating or coating operations subject to the subpart.

17. Deviations from permit conditions shall be reported, in writing, within five (5) business days of the deviation, to the Office of Air Resources. Reports shall describe the probable cause of such deviations, and any corrective actions or preventative measure taken.

18. All records required in this permit shall be maintained for a minimum of five years after the date of each record and shall be made available to representatives of the Office of Air Resources upon request.

E. Other Permit Conditions

1. To the extent consistent with the requirements of this permit and applicable federal and state laws, the facility shall be designed, constructed and operated in accordance with the representation of the facility in the permit application.

2. The emission and dispersion characteristics of all sources of IPA and toluene at the facility shall be consistent with the parameters used in the air quality modeling to demonstrate that the emissions of IPA and toluene do not cause an impact, at or beyond the property line of the facility, which exceeds the Acceptable Ambient Level for that substance. The Office of Air Resources, in its sole discretion, may reopen this minor source permit if it determines that the emission and dispersion characteristics have changed significantly and that emission limitations must be revised and/or added to this permit to ensure compliance with Air Pollution Control Regulation No. 22.

3. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter the facility at all times for the purpose of inspecting any air pollution source, investigating any condition it believes may be causing air pollution or examining any records required to be maintained by the Office of Air Resources.

4. At all times, including periods of startup, shutdown and malfunction, the owner/operator shall, to the extent practicable, maintain and operate the facility in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Office of

Air Resources, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the source.

5. The owner/operator is subject to the requirements of 40 CFR 63.1- 15, Subpart A, "General Provisions" and 40 CFR 63, Subpart PPPP, National Emission Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products. Compliance with all applicable provisions therein is required, unless otherwise stated in this permit.

F. Trial Surface Coating Operations

1. The owner/operator may conduct trial surface coating operations subject to the following conditions:

a. Trial surface coating operations include the production of any product that is not intended for sale.

b. The owner/operator shall comply with the provisions of Air Pollution Control Regulation No. 9 by:

(1) Limiting the total quantity of emissions discharged to the atmosphere from the trial surface coating operations to no more than 10 pounds per hour or 100 pounds per day of VOC, whichever is more stringent;

(2) Limiting the total quantity of emissions discharged to the atmosphere from trial surface coating operations so that facility emissions do not exceed the minimum quantity for a listed toxic air contaminant, as specified in Appendix A of Air Pollution Control Regulation No. 9; and,

(3) Prohibiting the use, in trial surface coating operations, of any toxic air contaminant that has actual facility emissions which exceed the minimum quantity as specified in Appendix A of Air Pollution Control Regulation No. 9 unless allowed under a separate permit.

c. The owner/operator shall comply with the provisions of this permit by limiting emissions from trial surface coating operations to no more than 6.7 pounds of VOC per gallon of coating, minus water, as applied.

d. The owner/operator shall maintain the following records to determine compliance with Air Pollution Control Regulation No. 9 for trial surface coating operations. These records shall be maintained for a period of five (5) years and shall be available for inspection by the Office of Air Resources and the Environmental Protection Agency upon request for the purpose of determining compliance with this condition. These records shall include the following:

(1) The date, start time and end time for each coating trial and the quantity of coating used for each coating trial;

(2) The name, identification number and amount used each hour and each day of each coating, as applied;

(3) For each coating used, the VOC content in pounds of VOC per gallon of coating, as applied, and the quantity of any listed toxic air contaminant in pounds per gallon of coating, as applied;

(4) Records of any and all calculations documenting the as applied VOC content in pounds per gallon of coating and the listed toxic air contaminant content in pounds per gallon of coating; and,

(5) The type and amount of any solvent used for diluents and cleanup operations.

e. The owner/operator shall notify the Office of Air Resources in writing, within 5 days, whenever:

(1) The total quantity of emissions discharged to the atmosphere, from trial surface coating operations exceeds 10 pounds per hour or 100 pounds per day of VOC, whichever is more stringent, unless otherwise allowed by permit approval; or,

(2) The aggregate quantity of emissions discharged to the atmosphere from trial surface coating operations and facility operations exceeds the minimum quantity for any listed toxic air contaminant as specified in Appendix A of Air Pollution Control Regulation No. 9.

f. The owner/operator shall notify the Office of Air Resources in writing, within 5 days, whenever the VOC emissions from trial surface coating operations exceed 6.7 pounds of VOC per gallon of coating, minus water, as applied.

g. The owner/operator shall, while conducting trial surface coating operations, remain in compliance with all applicable provisions of 40 CFR 63, Subpart PPPP, National Emission Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products, unless otherwise stated in this permit.

Appendix A

Determination of Weight Volatile Matter Content and Weight Solids Content of Reactive Adhesives

1.0 APPLICABILITY AND PRINCIPLE

1.1 *Applicability:* This method applies to the determination of weight volatile matter content and weight solids content for most one-part or multiple-part reactive adhesives. Reactive adhesives are composed, in large part, of monomers that react during the adhesive curing reaction, and, as a result, do not volatilize. The monomers become integral parts of the cured adhesive through chemical reaction. At least 70 weight percent of the system, excluding water and non-volatile solids such as fillers, react during the process. This method is not appropriate for cyanoacrylates. For cyanoacrylates, South Coast Air Quality Management District Test Method 316B should be used. This method is not appropriate for one-part moisture cure urethane adhesives or for silicone adhesives. For one-part moisture cure urethane adhesives and for silicone adhesives, EPA Method 24 should be used.

1.2 Principle: One-part and multiple-part reactive adhesives undergo a reactive conversion from liquid to solid during the application and assembly process. Reactive adhesives are applied to a single surface, but then are usually quickly covered with another mating surface to achieve a bonded assembly. The monomers employed in such systems typically react and are converted to non-volatile solids. If left uncovered, as in a Method 24 (ASTM D2369) test, the reaction is inhibited by the presence of oxygen and volatile loss of the reactive components competes more heavily with the cure reaction. If this were to happen under normal use conditions, the adhesives would not provide adequate performance. This method minimizes this undesirable deterioration of the adhesive performance.

2.0 MATERIALS AND APPARATUS

2.1 Aluminum foil, aluminum sheet, non-leaching plastic film or non-leaching plastic sheet, approximately 3 inches by 3 inches. Precondition the foil, film, or sheet for 30 minutes in an oven at 110 ±5 degrees Celsius and store in a desiccator prior to use. Use tongs or rubber gloves or both to handle the foil, film, or sheet.

2.2 Flat, rigid support panels slightly larger than the foil, film, or sheet. Polypropylene with a minimum thickness of $\frac{1}{8}$ inch is recommended for the support panels. Precondition the support panels for 30 minutes in an oven at 110 ±5 degrees Celsius and store in a desiccator prior to use. Use tongs or rubber gloves or both to handle the support panels.

2.3 Aluminum spacers, $\frac{1}{8}$ inch thick. Precondition the spacers for 30 minutes in an oven at 110 ±5 degrees Celsius and store in a desiccator prior to use. Use tongs or rubber gloves or both to handle the spacers.

2.4 Forced draft oven, type IIA or IIB as specified in ASTM E145-94 (Reapproved 2001), "Standard Specification for Gravity-Convection and Forced-Ventilation Ovens" (incorporated by reference, see §63.14).

2.5 Electronic balance capable of weighing to ±0.0001 grams (0.1 mg).

2.6 Flat bottom weight (approximately 3 lbs) or clamps.

Material and Apparatus Notes

1—The foil, film, or sheet should be thick or rigid enough so that it can be easily handled in the test procedure.

3.0 PROCEDURE

3.1 Two procedures are provided. In Procedure A the initial specimen weight is determined by weighing the foil, film, or sheet before and after the specimen is dispensed onto the foil, film, or sheet. In Procedure B the initial specimen weight is determined by weighing the adhesive cartridge (kit) before and after the specimen is dispensed.

3.2 At least four test specimens should be run for each test material. Run the test at room temperature, 74 degrees Fahrenheit (23 degrees Celsius).

Procedure A

1. Zero electronic balance.

2. Place 2 pieces of aluminum foil (or aluminum sheet, plastic film, or plastic sheet) on scale.

3. Record weight of aluminum foils. (A).

4. Tare balance.

5. Remove top piece of aluminum foil.

6. Dispense a 10 to 15 gram specimen of premixed adhesive onto bottom piece of aluminum foil. Place second piece of aluminum foil on top of the adhesive specimen to make a sandwich.

7. Record weight of sandwich (specimen and aluminum foils). (B).

8. Remove sandwich from scale, place sandwich between two support panels with aluminum spacers at the edges of the support panels to make a supported sandwich. The spacers provide a standard gap. Take care to mate the edges.

9. Place the supported sandwich on a flat surface.

10. Place the weight on top of the supported sandwich to spread the adhesive specimen to a uniform thickness within the sandwich. Check that no adhesive squeezes out from between the pieces of aluminum foil or through tears in the aluminum foil.

11. Allow to cure 24 hours.

12. Remove the sandwich from between the support panels. Record the weight of the sandwich. This is referred to as the 24 hr weight. (C).

13. Bake sandwich at 110 degrees Celsius for 1 hour.

14. Remove sandwich from the oven, place immediately in a desiccator, and cool to room temperature. Record post bake sandwich weight. (D).

Procedure B

1. Zero electronic balance.

2. Place two pieces of aluminum foil (or aluminum sheet, plastic film, or plastic sheet) on scale.

3. Record weight of aluminum foils. (A).

4. Tare balance.

5. Place one support panel on flat surface. Place first piece of aluminum foil on top of this support panel.

6. Record the weight of a pre-mixed sample of adhesive in its container. If dispensing the adhesive from a cartridge (kit), record the weight of the cartridge (kit) plus any dispensing tips. (F).

7. Dispense a 10 to 15 gram specimen of mixed adhesive onto the first piece of aluminum foil. Place second piece of aluminum foil on top of the adhesive specimen to make a sandwich.

8. Record weight of the adhesive container. If dispensing the adhesive from a cartridge (kit), record the weight of the cartridge (kit) plus any dispensing tips. (G).

9. Place the aluminum spacers at the edges of the bottom support panel polypropylene sheet. The spacers provide a standard gap.

10. Place the second support panel on top of the assembly to make a supported sandwich. Take care to mate the edges.

11. Place the supported sandwich on a flat surface.

12. Place the weight on top of the supported sandwich to spread the adhesive specimen to a uniform thickness within the sandwich. Check that no adhesive squeezes out from between the pieces of aluminum foil or through tears in the aluminum foil.

13. Allow to cure 24 hours.

14. Remove the sandwich from between the support panels. Record the weight of the sandwich. This is referred to as the 24 hr weight. (C).

15. Bake sandwich at 110 degrees Celsius for 1 hour.

16. Remove sandwich from the oven, place immediately in a desiccator, and cool to room temperature.

17. Record post-bake sandwich weight. (D).

Procedural Notes

1—The support panels may be omitted if the aluminum foil (or aluminum sheet, plastic film, or plastic sheet) will not tear and the adhesive specimen will spread to a uniform thickness within the sandwich when the flat weight is placed directly on top of the sandwich.

2—Clamps may be used instead of a flat bottom weight to spread the adhesive specimen to a uniform thickness within the sandwich.

3—When dispensing from a static mixer, purging is necessary to ensure uniform, homogeneous specimens. The weighing in Procedure B, Step 6 must be performed after any purging.

4—Follow the adhesive manufacturer's directions for mixing and for dispensing from a cartridge (kit).

4.0 CALCULATIONS

4.1 The total weight loss from curing and baking of each specimen is used to determine the weight percent volatile matter content of that specimen

Procedure A

Weight of original specimen (S) = (B)−(A)

Weight of post-bake specimen (P) = (D)−(A)

Total Weight Loss (L) = (S)−(P)

Procedure B

Weight of original specimen (S) = (F)−(G)

Weight of post-bake specimen (P) = (D)−(A)

Total Weight Loss (L) = (S)−(P)

Procedure A and Procedure B

Weight Percent Volatile Matter Content

(V) = [(Total weight loss)/(Initial specimen weight)] × 100 = [(L)/(S)] × 100

4.2 The weight volatile matter content of a material is the average of the weight volatile matter content of each specimen of that material. For example, if four specimens of a material were tested, then the weight percent volatile matter content for that material is:

$$V = [V1 + V2 + V3 + V4]/4$$

Where:

Vi = the weight percent volatile matter content of specimen i of the material.

4.3 The weight percent solids content of the material is calculated from the weight percent volatile content of the material.

Weight Percent Solids Content (N) = 100−(V)

Calculation Notes

1—The weight loss during curing and the weight loss during baking may be calculated separately. These values may be useful for identifying sources of variation in the results obtained for different specimens of the same material.

2—For both Procedure A and Procedure B, the weight loss during curing is (S)−[(C)−(A)] and the weight loss during baking is (C)−(D).

Appendix B

Default Organic HAP Mass Fraction for Solvents and Solvent Blends

The owner/operator may use the mass fraction values in the following table for solvent blends for which the owner/operator does not have test data or manufacturer's formulation data and which match either the solvent blend name or the chemical abstract series (CAS) number. If a solvent blend matches both the name and CAS number for an entry, that entry's organic HAP mass fraction must be used for that solvent blend. Otherwise, use the organic HAP mass fraction for the entry matching either the solvent blend name or CAS number, or use the organic HAP mass fraction from Appendix C of this permit if neither the name or CAS number match.

Table 3 to Subpart PPPP of Part 63			
	CAS. No.	**Average organic HAP mass fraction**	**Typical organic HAP, percent by mass**
1. Toluene	108-88-3	1.0	Toluene
2. Xylene(s)	1330-20-7	1.0	Xylenes, ethylbenzene
3. Hexane	110-54-3	0.5	n-hexane
4. n-Hexane	110-54-3	1.0	n-hexane
5. Ethylbenzene	100-41-4	1.0	Ethylbenzene
6. Aliphatic 140		0	None
7. Aromatic 100		0.02	1% xylene, 1% cumene
8. Aromatic 150		0.09	Naphthalene
9. Aromatic naphtha	64742-95-6	0.02	1% xylene, 1% cumene
10. Aromatic solvent	64742-94-5	0.1	Naphthalene
11. Exempt mineral spirits	8032-32-4	0	None
12. Ligroines (VM & P)	8032-32-4	0	None
13. Lactol spirits	64742-89-6	0.15	Toluene
14. Low aromatic white spirit	64742-82-1	0	None
15. Mineral spirits	64742-88-7	0.01	Xylenes
16. Hydrotreated naphtha	64742-48-9	0	None
17. Hydrotreated light distillate	64742-47-8	0.001	Toluene
18. Stoddard solvent	8052-41-3	0.01	Xylenes
19. Super high-flash naphtha	64742-95-6	0.05	Xylenes
20. Varsol® solvent	8052-49-3	0.01	0.5% xylenes, 0.5% ethylbenzene
21. VM & P naphtha	64742-89-8	0.06	3% toluene, 3% xylene
22. Petroleum distillate mixture	68477-31-6	0.08	4% naphthalene, 4% biphenyl

Appendix C

Default Organic HAP Mass Fraction for Petroleum Solvent Groups[a]

The owner/operator may use the mass fraction values in the following table for solvent blends for which the owner/operator does not have test data or manufacturer's formulation data.

Table 4 to Subpart PPPP of Part 63		
Solvent type	**Average organic HAP mass fraction**	**Typical organic HAP, percent by mass**
Aliphatic[b]	0.03	1% Xylene, 1% Toluene, and 1% Ethylbenzene.
Aromatic[c]	0.06	4% Xylene, 1% Toluene, and 1% Ethylbenzene.

[a] Use this table only if the solvent blend does not match any of the solvent blends in Appendix B of this permit by either solvent blend name or CAS number and the owner/operator only knows whether the blend is aliphatic or aromatic.

[b] Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

[c] Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

S:\shared\PERMIT\2014\PCMIN-SPERIAN 13.doc