

Bay Area Air Quality Management District

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**Permit Evaluation
and
Statement of Basis
for**

**Renewal of
MAJOR FACILITY REVIEW PERMIT**

**for
Wincup
Facility #A1317**

Facility Address:

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Corte Madera, CA 94925

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September 2005

Application Engineer: Craig Ullery
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Application Number: 9672

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Permit Evaluation/Statement of Basis for Renewal of Major Facility Review Permit

A. Background

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Volume 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review because it is a “major facility” as defined by BAAQMD Regulation 2-6-212. It is a “major facility” because it has the potential (uncontrolled) to emit more than 100 tons per year of a regulated air pollutant.

Major Facility Operating permits (Title V permits) must meet specifications contained in 40 CFR Part 70 as contained in BAAQMD Regulation 2, Rule 6. The permits must contain all applicable requirements (as defined in BAAQMD Regulation 2-6-202), monitoring requirements, recordkeeping requirements, and reporting requirements. The permit holders must submit reports of all monitoring at least every six months and compliance certifications at least every year.

In the Bay Area, state and District requirements are also applicable requirements and are included in the permit. These requirements can be federally enforceable or non-federally enforceable. All applicable requirements are contained in Sections I through VI of the permit.

Each facility in the Bay Area is assigned a facility identifier that consists of a letter and a 4-digit number. This identifier is also considered to be the identifier for the permit. The identifier for this facility is A1317.

This facility received its initial Major Facility Review permit on November 1, 1999. This application is for a renewal of the Title V permit. The standard sections of the permit have been upgraded to include new standard language used in all Title V permits. Also, various other corrections have been made to the permit. The proposed permit shows all changes to the permit in strikeout/underline format.

The primary responsible official, secondary responsible official, and facility contact have changed.

All of these revisions are described below in the permit content section. The proposed permit shows all changes to the permit in strikeout/underline format.

The facility has submitted applications since the Major Facility Review permit was issued on November 1, 1999. Following is a list of the applications:

<u>Application #</u>	<u>Description</u>	<u>Date of Receipt</u>
611	Abatement Device	11/15/99 (Cancelled)
2292	Pre-Puff Storage	1/17/01
7833	Pre-Puff Storage	6/30/03

8345	Title V Revision	9/25/03
8944	Printers	1/20/04
9596	Solvent Cleaning	4/9/04
9672	Title V Renewal	4/21/04

Application #611 was cancelled.

Application 2292 is for pre-puff storage bins and bags in existence at the facility but not identified by the District's Enforcement & Compliance Division as permissible sources until 2002. The engineering evaluation provides more detail and can be found in Appendix A.

Application 7833 was submitted for removal and replacement of like pre-puff storage bins. The engineering evaluation provides more detail and can be found in Appendix B.

Application No. 8345 was the Title V revision application for sources addressed in application 7833.

Application No. 8944 is for grouping of existing printers into three groups to streamline conditions. The engineering evaluation provides more detail and can be found in Appendix C.

Application No. 9596 is for a cleaning operation associated with the printing lines. The engineering evaluation provides more detail and can be found in Appendix D.

Application 9672 is for renewal of the Title V permit, which is the subject of this action.

B. Facility Description

The facility is a manufacturer of expandable polystyrene foam products, such as cups and containers. Expandable polystyrene pellets expand when heated and release a volatile organic compound (VOC) used as a blowing agent. Emissions from the pre-puff operations and from the storage bins are routed to the S-1 and S-2 boilers for destruction.

The 1996 plant inventory emissions are as follows:

Source	Description	NOx (tons/yr)	CO (tons/yr)	SO2 (tons/yr)	VOC (tons/yr)	PM (tons/yr)
S-1	Boiler	5.475	1.460	0	0.183	0.183
S-2	Boiler	8.760	2.190	0	0.183	0.183
S-4	Foam Cup Molding Lines 1- 10	0	0	0	11.133	0
S-5	Foam Cup Molding Lines 11 -16	0	0	0	7.848	0
S-6	Foam Cup Molding Lines 17 -25	0	0	0	3.833	0
S-7	Foam Cup					

	Molding Lines 27 - 30	0	0	0	4.015	0
S-8	Printer Lines 11-15 and 27-30	0	0	0	0	0
S-9	Printer Lines 1-5 and 7	0	0	0	0.365	0
S-10	Thermoforming Sheet Lines 1 - 6	0	0	0	0.183	0
S-11	Pre-Expander	0	0	0	0.548	0
S-12	Pre-Expander	0	0	0	0.548	0
S-13	Pre-Expander	0	0	0	0.548	0
S-14	Pre-Expander	0	0	0	0.548	0
S-15	Pre-Expander	0	0	0	0.548	0
S-16	Diesel Fuel Tank (Exempt)	0	0	0	0	0
S-17	Solvent Cleaner	0	0	0	0.548	0
S-18	UV Printer	0	0	0	0	0
S-19	UV Printer	0	0	0	0	0
S-20	UV Printer	0	0	0	0	0
Exempt Sources					0	
Total		14.235	3.65	0	31.031	0.366

The 2004 plant inventory emissions are as follows:

Source	Description	NOx (tons/yr)	CO (tons/yr)	SO2 (tons/yr)	VOC (tons/yr)	PM (tons/yr)
S-1	Boiler	8.578	2.190	0	0.183	0.183
S-2	Boiler	7.118	1.825	0	0.183	0.183
S-4	Foam Cup Molding Lines 1-10	0	0	0	10.585	0
S-5	Foam Cup Molding Lines 11-16	0	0	0	8.213	0
S-6	Foam Cup Molding Lines 17-25	0	0	0	4.928	0
S-7	Foam Cup Molding Lines 27-30	0	0	0	6.570	0
S-10	Thermoforming Sheet Lines 1 - 6	0	0	0	0.183	0
S-11	Pre-Expander	0	0	0	3.468	0

S-12	Pre-Expander	0	0	0	3.468	0
S-13	Pre-Expander	0	0	0	3.468	0
S-14	Pre-Expander	0	0	0	3.468	0
S-15	Pre-Expander	0	0	0	3.468	0
S-16	Diesel Fuel Tank (Exempt)	0	0	0	0	0
S-17	Solvent Cleaner	0	0	0	0.913	0
S-27	Pre-Puff Storage Bin	0	0	0	0	0.375
S-28	Pre-Puff Storage Bin	0	0	0	0	0.375
S-29	Pre-Puff Storage Bin	0	0	0	0	0.375
S-30	Pre-Puff Storage Bin	0	0	0	0	0.375
S-31	Pre-Puff Storage Bin	0	0	0	0	0.375
S-32	Pre-Puff Storage Bin	0	0	0	0	0.375
S-35	Pre-Puff Storage Bin	0	0	0	0	0.094
S-36	Pre-Puff Storage Bin	0	0	0	0	0.169
S-37	Pre-Puff Storage Bin	0	0	0	0	0.375
S-38	UV Printers	0	0	0	0	0
S-39	UV Printers	0	0	0	0	0
S-40	UV Printers	0	0	0	0	0
S-41	Solvent Cleaning Operation	0	0	0	1.095	0
Exempt Sources					0	
Total		15.696	4.015	0	49.281	3.254

The change in plant emissions between 1996 and 2004 are:

Pollutant	Change in Plant Emissions (tons/yr)
NOx	+1.461
CO	+0.365
SO2	0
VOC	+18.250
PM	+2.888

The increase in NO_x, CO, and VOC emissions can be attributed to increased production from 1996 to 2004.

In 2002, Wincup began capturing the emissions from S-27 through S-37 Pre-Puff storage bins by venting the bins and routing the emissions to S-1 and S-2 boilers for abatement. S-11 through S-15 pre-expanders are also currently abated by the S-1 and S-2 boilers.

C. Permit Content

The legal and factual basis for the permit follows. The permit sections are described in the order presented in the permit.

I. Standard Conditions

This section contains administrative requirements and conditions that apply to all facilities. The standard conditions also contain references to BAAQMD Regulation 1 and Regulation 2. These are the District's General Provisions and Permitting rules.

Changes to permit:

- Regulation 6 Rule 6 in Standard Condition I.A have been updated.
- The rule dates in Standard Condition I.A have been updated and corrected.
- Standard Condition I.B.1 has been amended to state that the permit continues in force after the expiration date if a complete application has been submitted in accordance with the renewal deadlines. This is the "application shield" pursuant to BAAQMD Regulation 2-6-407.
- The following language was added as Standard Condition I.B.12: "The permit holder is responsible for compliance, and certification of compliance, with all conditions of the permit, regardless whether it acts through employees, agents, contractors, or subcontractors. (Regulation 2-6-307)." The purpose is to reiterate that the Permit Holder is responsible for ensuring that all activities at the facility comply with all applicable requirements.
- Standard Condition I.E has been changed to IE1 and IE2. IE1 states that the permit holder must provide any information, records, and reports requested or specified by the APCO and IE2 is the original standard language of IE.
- The reference to Regulation 3 "Fees" was removed from the regulatory basis in Standard Conditions E "Records" and F "Monitoring Reports". BAAQMD Regulation 3 does not form a fundamental basis for these requirements.
- Standard Condition I.H for emergency provisions now contains applicable language.
- Standard Condition I.J has been added that states that the maximum capacity for each source as shown in Table II-A is the maximum allowable capacity.
- References to Regulation 8 Rule 4 were deleted and replaced with Regulation 8 Rule 52, Polystyrene Product Manufacturing Operations. Regulation 8 Rule 4 required a minimum 90% VOC destruction efficiency; Regulation 8 Rule 52 requires a minimum 98% VOC destruction efficiency.

II. Equipment

This section of the permit lists all permitted or significant sources. Each source is identified by an S and a number (e.g., S1 or S-1).

Permitted sources are those sources that require a BAAQMD operating permit pursuant to BAAQMD Rule 2-1-302.

Significant sources are those sources that have a potential to emit more than 2 tons of a “regulated air pollutant,” as defined in BAAQMD Rule 2-6-222, per year or 400 pounds of a “hazardous air pollutant,” as defined in BAAQMD Rule 2-6-210, per year.

Major Facility Review permits list all abatement (control) devices.

The equipment section is considered to be part of the facility description. It contains information that is necessary for applicability determinations, such as fuel types, contents or sizes of tanks, etc. This information is part of the factual basis of the permit. As noted, in 2002, Wincup began capturing the emissions from the Pre-Puff storage bins.

Each of the permitted sources has previously been issued an authority to construct or a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. These permits are issued in accordance with state law and the District’s regulations.

Changes to permit:

In application #2292, S-27 through S-32 and S-35 through S-37 Pre-puff storage bins, which always existed at this facility but weren’t identified by the District’s Enforcement and Compliance Division as permissible sources until 2002, received source designations. No increase in emission resulted by creating source designations for these operations.

Condition No. 19810 was added to the S-27 through S-32 and S-35 through S-37 Pre-puff storage bins by request of the District’s Enforcement and Compliance Division to limit emissions from these sources.

In Application #8944, the facility regrouped printing operations previously designated as S-8 and S-18 through 20 and redesignated them as S-38, S-39 and S-40. Clean-up related to these printing operations and included in the former source designation was re-permitted as S-41 (Application #9596) because the facility decided to perform the cleaning operations in a solvent cleaner, which is a permissible source. No increase in emission resulted in the restructuring of the permit designations for these operations.

III. Generally Applicable Requirements

This section of the permit lists requirements that generally apply to all sources at a facility including insignificant sources and portable equipment that may not require a District permit. If a generally applicable requirement applies specifically to a source that is permitted or significant, the standard will also appear in Section IV and the monitoring for that requirement will appear in Sections IV and VII of the permit. Parts of this section apply to all facilities (e.g., particulate, architectural coating, odorous substance, and sandblasting standards). In addition, standards that apply to insignificant or unpermitted sources at a facility (e.g., refrigeration units that use more than 50 pounds of an ozone-depleting compound) are placed in this section.

Unpermitted sources are exempt from normal District permits pursuant to an exemption in BAAQMD Regulation 2, Rule 1. They may, however, be specifically described in a Major Facility Review permit if they are considered significant sources pursuant to the definition in BAAQMD Rule 2-6-239.

Changes to permit:

Language has been added to Section III to clarify that this section contains requirements that may apply to temporary sources. This provision requires contractors that have "portable" equipment permits to comply with all applicable requirements to work at the facility on a temporary basis, even if the permit does not specifically list the temporary source. Examples are temporary sandblasting or soil-vapor extraction equipment.

Section III has been modified to state that SIP standards are now found on EPA's website and are not included as part of the permit.

Table IIB has been amended to indicate the abatement devices are subject to Regulation 8 Rule 52 and 98% VOC control efficiency, not Regulation 8 Rule 4 and 90% control efficiency.

Table III has been updated by adding the following rules and standards to conform to current practice:

- SIP Regulation 2, Rule 1, General Requirements
- SIP Regulation 5, Open Burning
- BAAQMD Regulation 8, Rule 40 Aeration of Contaminated Soil and Removal of Underground Storage Tanks
- BAAQMD Regulation 8, Rule 47, Air Stripping and Soil Vapor Extraction Operations
- SIP Regulation 8, Rule 51, Adhesive and Sealant Products
- California Health and Safety Code Section 41750 et seq., Portable Equipment
- California Health and Safety Code Section 44300 et seq., Air Toxics "Hot Spots" Information and Assessment Act of 1987
- BAAQMD Regulation 2, Rule 5 New Source Review of Toxic Air Contaminants

The dates of adoption or approval of the rules and their "federal enforceability" status in Table III have also been updated.

IV. Source-Specific Applicable Requirements

This section of the permit lists the applicable requirements that apply to permitted or significant sources. These applicable requirements are contained in tables that pertain to one or more sources that have the same requirements. The order of the requirements is:

- District Rules
- SIP Rules (if any) are listed following the corresponding District rules. SIP rules are District rules that have been approved by EPA for inclusion in the California State Implementation Plan (SIP). SIP rules are "federally enforceable" and a "Y" (yes) indication will appear in the "Federally Enforceable" column. If the SIP rule is the current District rule, separate citation of the SIP rule is not necessary and the "Federally Enforceable" column will have a "Y" for "yes". If the SIP rule is not the current District rule, the SIP rule or the necessary portion of the SIP rule is cited separately after the District rule. The SIP portion will be

federally enforceable; the non-SIP version will not be federally enforceable, unless EPA has approved it through another program.

- Other District requirements, such as the Manual of Procedures, as appropriate.
- Federal requirements (other than SIP provisions)
- BAAQMD permit conditions. The text of BAAQMD permit conditions is found in Section VI of the permit.
- Federal permit conditions. The text of Federal permit conditions, if any, is found in Section VI of the permit.

Section IV of the permit contains citations to all of the applicable requirements for particular sources. The text of the requirements is found in the regulations, which are readily available on the District's or EPA's websites, or in the permit conditions, which are found in Section VI of the permit. All monitoring requirements are cited in Section VII. Section VII is a cross-reference between the limits and monitoring requirements. As noted, in 2002, Wincup began capturing the emissions from the Pre-Puff storage bins.

Complex Applicability Determinations

The facility is not subject to 112(j) of the Clean Air Act because it is not a major source of hazardous air pollutants. The VOC compounds emitted from this operation consist primarily of pentane gas that is released during the expansion of the polystyrene pellets.

Changes to permit:

Section IV has been modified to state that SIP standards are now found on EPA's website and are not included as part of the permit.

The dates of adoption or approval of the rules and their "federal enforceability" status have been updated.

Changes have been made to the citations for BAAQMD Regulation 1 because the SIP version has changed.

Changes have been made to reflect facility is subject to Regulation 8 Rule 52 and not Regulation 8 Rule 4.

For S1 and S2 Boilers, source-specific applicable requirements for particulates have now been added to Table IV of the Title V permit.

In application #2292, S-27 through S-32 and S-35 through S-37 Pre-puff storage bins, which always existed at this facility but weren't identified by the District's Enforcement and Compliance Division as identifiable sources until 2002, received source designations. No increase in emission resulted by creating source designations for these operations.

Condition No. 19810 was added to the S-27 through S-32 and S-35 through S-37 Pre-puff storage bins by request of the District's Enforcement and Compliance Division to limit emissions from these sources.

In Application #8944, the facility regrouped printing operations previously designated as S-8 and S-18 through 20 and redesignated them as S-38, S-39 and S-40. Clean-up related to these printing operations and included in the former source designation was re-permitted as S-41 (Application #9596) because the facility decided to perform the cleaning operations in a solvent cleaner, which is an identifiable source that requires a permit. No increase in emissions resulted from the restructuring of the permit designations for these operations.

V. Schedule of Compliance

A schedule of compliance is required in all Major Facility Review permits pursuant to BAAQMD Regulation 2-6-409.10 which provides that a major facility review permit shall contain the following information and provisions:

“409.10 A schedule of compliance containing the following elements:

- 10.1 A statement that the facility shall continue to comply with all applicable requirements with which it is currently in compliance;
- 10.2 A statement that the facility shall meet all applicable requirements on a timely basis as requirements become effective during the permit term; and
- 10.3 If the facility is out of compliance with an applicable requirement at the time of issuance, revision, or reopening, the schedule of compliance shall contain a plan by which the facility will achieve compliance. The plan shall contain deadlines for each item in the plan. The schedule of compliance shall also contain a requirement for submission of progress reports by the facility at least every six months. The progress reports shall contain the dates by which each item in the plan was achieved and an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.”

The BAAQMD Compliance and Enforcement Division have conducted a review of compliance over the past year and have _____ records of compliance problems at this facility during the past year.

VI. Permit Conditions

The existing permit conditions are derived from previously issued District Authorities to Construct (A/C) or Permits to Operate (P/O). Permit conditions may be imposed or revised as a result of the facility submitting permit applications. Permit conditions may also be imposed or revised as part of the annual review of the facility by the District pursuant to California Health and Safety Code (H&SC) § 42301(e), through a variance pursuant to H&SC § 42350 et seq., an order of abatement pursuant to H&SC § 42450 et seq., or as an administrative revision initiated by District staff. After issuance of the Title V permit, permit conditions will be revised using the procedures in Regulation 2, Rule 6, Major Facility Review. Permit conditions may also be derived from periodic monitoring requirements pursuant to BAAQMD Regulation 2-5-503, Monitoring.

Each permit condition is identified with a unique numerical identifier, up to five digits. Each part of the condition is also identified by a part number and each subpart is identified by a letter (for example, Condition 672, part 1a).

The regulatory basis is listed following each condition. The regulatory basis may be a rule or regulation. The District is also using the following terms for regulatory basis:

- **BACT:** This term is used for a condition imposed by the Air Pollution Control Officer (APCO) to ensure compliance with the Best Available Control Technology in Regulation 2-2-301.
- **Cumulative Increase:** This term is used for a condition imposed by the APCO that limits a source's operation to the operation described in the permit application pursuant to BAAQMD Regulation 2-1-403.
- **Offsets:** This term is used for a condition imposed by the APCO to ensure compliance with the use of offsets for the permitting of a source or with the banking of emissions from a source pursuant to Regulation 2, Rules 2 and 4.
- **PSD:** This term is used for a condition imposed by the APCO to ensure compliance with a Prevention of Significant Deterioration permit issued pursuant to Regulation 2, Rule 2.
- **TRMP:** This term is used for a condition imposed by the APCO to ensure compliance with limits that arise from the District's Toxic Risk Management Policy.
- **Recordkeeping:** This term is used for a condition imposed by the APCO to ensure compliance with equipment and process operating limits.

Any changes to existing permit conditions are clearly shown in "strike-out/underline" format in the proposed permit. When the permit is issued, all "strike-out" language will be deleted and all "underline" language will be retained, subject to consideration of comments received.

In application #2292, S-27 through S-32 and S-35 through S-37 Pre-puff storage bins, which always existed at this facility but weren't identified by the District's Enforcement and Compliance Division as permittable sources until 2002, received source designations. No increase in emission resulted by creating source designations for these operations.

Condition No. 2055 was amended in application 2292 to also require abatement of the Pre-puff storage bins by the boilers. Condition No. 19810 was added to the S-27 through S-32 and S-35 through S-37 Pre-puff storage bins by request of the District's Enforcement and Compliance Division to limit emissions from these sources.

In Application #8944, the facility regrouped printing operations previously designated as S-8 and S-18 through 20 and redesignated them as S-38, S-39 and S-40. Clean-up related to these printing operations and included in the former source designation was re-permitted as S-41 (Application #9596) because the facility decided to perform the cleaning operations in a solvent cleaner, which is a permittable source. Condition no. 21882 was imposed on S-41 to limit throughput. No increase in emission resulted in the restructuring of the permit designations for these operations.

Condition no. 12321 for S-18 through S-20 and S-21 through S-24 UV printers was deleted because the sources were grouped under new source numbers S-38, 39, and 40 and condition no. 21500 limited ink, solvent and clean-up throughput. No increase in emissions resulted from the restructuring of the permit designations for these operations.

VII. Applicable Limits and Compliance Monitoring Requirements

This section of the permit is a summary of numerical limits and related monitoring requirements for each source. The summary includes a citation for each monitoring requirement, frequency of

monitoring, and type of monitoring. The applicable requirements for monitoring are completely contained in Sections IV, Source-Specific Applicable Requirements, and VI, Permit Conditions, of the permit. Changes may also occur because the facility submitted an application for a change in their operations.

The tables below contain only the limits for which there is no monitoring or inadequate monitoring in the applicable requirements. The District has examined the monitoring for other limits and has determined that monitoring is adequate to provide a reasonable assurance of compliance. Calculations for potential to emit will be provided in the discussion when no monitoring is proposed due to the size of a source.

Monitoring decisions are typically the result of a balancing of several different factors including: 1) the likelihood of a violation given the characteristics of normal operation, 2) degree of variability in the operation and in the control device, if there is one, 3) the potential severity of impact of an undetected violation, 4) the technical feasibility and probative value of indicator monitoring, 5) the economic feasibility of indicator monitoring, and 6) whether there is some other factor, such as a different regulatory restriction applicable to the same operation, that also provides some assurance of compliance with the limit in question.

These factors are the same as those historically applied by the District in developing monitoring for applicable requirements. It follows that, although Title V calls for a re-examination of all monitoring, there is a presumption that these factors have been appropriately balanced and incorporated in the District’s prior rule development and/or permit issuance. It is possible that, where a rule or permit requirement has historically had no monitoring associated with it, no monitoring may still be appropriate in the Title V permit if, for instance, there is little likelihood of a violation. Compliance behavior and associated costs of compliance are determined in part by the frequency and nature of associated monitoring requirements. As a result, the District will generally revise the nature or frequency of monitoring only when it can support a conclusion that existing monitoring is inadequate.

PM Sources

# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S1 and S2 Boilers	BAAQMD Regulation 6-301	Ringelmann 1.0 for less than 3 min/hr	None
S1 and S2 Boilers	BAAQMD Regulation 6-310.3	0.15 gr/dscf at 6% O2	None

PM Discussion:

BAAQMD Regulation 6 “Particulate Matter and Visible Emissions”

Visible Emissions

In EPA's June 24, 1999 agreement with CAPCOA and ARB, "Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", EPA has agreed that natural-gas-fired combustion sources do not need additional monitoring to verify compliance with Regulation 6, Visible Emissions. Therefore, no monitoring is necessary for this requirement.

Particulate Weight Limitation

BAAQMD Regulation 6-310 limits filterable particulate (FP) emissions from any source to 0.15 grains per dry standard cubic foot (gr/dscf) of exhaust volume. Section 310.3 limits filterable particulate emissions from "heat transfer operations" to 0.15 gr/dscf @ 6% O₂. These are the "grain loading" standards.

S1 and S2 Boilers

S1 and S2 Boilers are subject to BAAQMD Regulation 6-310.3, 0.15 gr/dscf PM @ 6% O₂. No monitoring has been imposed because the margin of compliance is high, as shown by the following calculation.

Natural Gas

The AP-42 factor for natural gas combustion is 7.6 lb/million standard cubic feet of natural gas (MMscf).

Converting to an emission factor per MMbtu:

$$(7.6 \text{ lb/MMscf}) \times (\text{MMscf}/1,050 \text{ MMbtu}) = 0.00724 \text{ lb/MMbtu}$$

The flue gas production rate for natural gas at 0% oxygen is 8,710 dscf. At 6% oxygen, the production rate is:

$$(20.9/20.9-6) (8710 \text{ dscf}) = 12,217 \text{ dscf}$$

The calculated particulate loading is:

$$(0.00724 \text{ lb PM/MMbtu}) \times (7000 \text{ gr/lb}) / (12,217 \text{ dscf/MMbtu}) = 0.004 \text{ gr/dscf}$$

The ratio of the limit to the calculated grain loading is 37.5:1, therefore, no additional monitoring is necessary to assure compliance.

SO₂ Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
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SO₂ Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S1 and S2 Boilers	BAAQMD 9-1-301	Ground level concentrations of SO ₂ shall not exceed: 0.5 ppm for 3 consecutive minutes AND 0.25 ppm averaged over 60 consecutive minutes AND 0.05 ppm averaged over 24 hours	None
S1 and S2 Boilers	BAAQMD 9-1-302	300 ppm (dry)	None

SO₂ Discussion:

BAAQMD Regulation 9-1-301

Area monitoring to demonstrate compliance with the ground level SO₂ concentration requirements of Regulation 9-1-301 is at the discretion of the APCO (per BAAQMD Regulation 9-1-501). This facility does not have equipment that emits large amounts of SO₂ and therefore is not required to have ground level monitoring by the APCO.

All facility combustion sources are subject to the SO₂ emission limitations in District Regulation 9, Rule 1 (ground-level concentration and emission point concentration). In EPA's June 24, 1999 agreement with CAPCOA and ARB, "Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", EPA has agreed that natural-gas-fired combustion sources do not need additional monitoring to verify compliance with Regulation 9, Rule 1, since violations of the regulation are unlikely. Therefore, no monitoring is necessary for this requirement for S1 and S2 Boilers, which will exclusively burn natural gas.

Following is a list of revisions to Section VII:

- The language at the beginning of the section has been made clearer.
- A note has been added at the beginning of the section to clarify that this section is a summary of the limits and monitoring, and that in the case of a conflict between Sections I-VI and Section VII, the preceding sections take precedence.
- Regulation 6-304 tube cleaning does not apply to these boilers and was deleted
- Table VII-C was eliminated because S-8 printing lines was grouped with other printers and given a new source designation
- Table VII-F was eliminated because S-18 through 20 printing lines was grouped with other printers and given a new source designation
- Table VII-G was eliminated because S-21 through 24 printing lines was grouped with other printers and given a new source designation
- Table VII-F was added due to permitting of S-27 through 32 and S-35 through 37 bin silos
- Table VII-G was added due to regrouping of S-8, S-18-20 and S-21 through 24 into S-38, 39, and 40 UV Printers

- Table VII-H was added due to permitting of solvent cleaning operations for the UV printers and designation of this operation as S-41.

VIII. Test Methods

This section of the permit lists test methods that are associated with standards in District or other rules. It is included only for reference. In most cases, the test methods in the rules are source test methods that can be used to determine compliance but are not required on an ongoing basis. They are not applicable requirements.

If a rule or permit condition requires ongoing testing, the requirement will also appear in Section VII of the permit.

Changes to permit

EPA Reference Method 5 (40 CFR 60, Appendix A), Determination of Particulate Emissions from Stationary Sources, has been added as an alternative method for BAAQMD Regulation 6-310.

IX. Revision History

Changes have been documented in the Title V permit and SOB.

D. Alternate Operating Scenarios:

No alternate operating scenario has been requested for this facility.

E. Permit Shield

The District rules allow two types of permit shields. The permit shield types are defined as follows: (1) A provision in a major facility review permit that identifies and justifies specific federally enforceable regulations and standards are not applicable to a source or group of sources, or (2) A provision in a major facility review permit that identifies and justifies specific federally enforceable applicable requirements for monitoring, recordkeeping and/or reporting which are subsumed because other applicable requirements for monitoring, recordkeeping, and reporting in the permit will assure compliance with all emission limits.

The second type of permit shield is allowed by EPA's White Paper 2 for Improved Implementation of the Part 70 Operating Permits Program. The District uses the second type of permit shield for all streamlining of monitoring, recordkeeping, and reporting requirements in Major Facility Review permits. The District's program does not allow other types of streamlining in Major Facility Review permits.

This facility has no permit shields.

F. Compliance Status:

An office memorandum from the Director of Compliance and Enforcement dated _____ 2005, to the Director of Engineering, presents a review of the compliance record of Wincup (Site # A1317). The office memorandum is presented in Appendix E. The Compliance and

Enforcement Division staff reviewed the records for the period from _____ 2003 through _____ 2004. This review was initiated as part of the District evaluation of an application by the facility for a Title V permit renewal. During the period subject to review, activities known to the District include:

- The District did _____ receive any alleged complaints.
- The District did _____ issue any Notices of Violation during this review period.
- The facility is _____ operating under a Variance or an Order of Abatement from the District Board of Directors.
- _____ monitor excesses were reported or documented.

The owner certified that all equipment was operating in compliance on _____. _____ ongoing non-compliance issues have been identified to date.

G. Glossary

Additions and corrections have been made to the glossary.

GLOSSARY

ACT

Federal Clean Air Act

APCO

Air Pollution Control Officer

AP-42

EPA's Compilation of Air Pollutant Emission Factors

ARB

Air Resources Board

BAAQMD

Bay Area Air Quality Management District

BACT

Best Available Control Technology

Basis

The underlying authority that allows the District to impose requirements.

CAA

The federal Clean Air Act

CAAQS

California Ambient Air Quality Standards

CAPCOA

California Air Pollution Control Officers Association

CEQA

California Environmental Quality Act

CFR

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

CO

Carbon Monoxide

Cumulative Increase

The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Cumulative increase is used to determine whether threshold-based requirements are triggered.

District

The Bay Area Air Quality Management District

dscf

Dry Standard Cubic Feet

EPA

The federal Environmental Protection Agency.

Excluded

Not subject to any District regulations.

Federally Enforceable, FE

All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60 (NSPS), Part 61 (NESHAPs), Part 63 (MACT), and Part 72 (Permits Regulation, Acid Rain), including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

FP

Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

HAP

Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by 40 CFR Part 63.

IERC

Interchangeable Emission Reduction Credit, as defined by BAAQMD Regulation 2-9-212.

Major Facility

A facility with potential emissions of: (1) at least 100 tons per year of regulated air pollutants, (2) at least 10 tons per year of any single hazardous air pollutant, and/or (3) at least 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity of hazardous air pollutants as determined by the EPA administrator.

MFR

Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Federal Clean Air Act and implemented by District Regulation 2, Rule 6.

MOP

The District's Manual of Procedures.

NAAQS

National Ambient Air Quality Standards

NESHAPS

National Emission Standards for Hazardous Air Pollutants. See in 40 CFR Parts 61 and 63.

NMHC

Non-methane Hydrocarbons (Same as NMOC)

NMOC

Non-methane Organic Compounds (Same as NMHC)

NO_x

Oxides of nitrogen.

NSPS

Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Federal Clean Air Act, and implemented by 40 CFR Part 60 and District Regulation 10.

NSR

New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the Federal Clean Air Act and implemented by 40 CFR Parts 51 and 52 and District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

Offset Requirement

A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. Applies to emissions of POC, NO_x, PM₁₀, and SO₂.

Phase II Acid Rain Facility

A facility that generates electricity for sale through fossil-fuel combustion and is not exempted by 40 CFR 72 from Titles IV and V of the Clean Air Act.

POC

Precursor Organic Compounds

PM

Particulate Matter

PM₁₀

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

PSD

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of those air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

SIP

State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

SO₂

Sulfur dioxide

THC

Total Hydrocarbons (NMHC + Methane)

Title V

Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

TOC

Total Organic Compounds (NMOC + Methane, Same as THC)

TPH

Total Petroleum Hydrocarbons

TRMP

Toxic Risk Management Plan

TSP

Total Suspended Particulate

VOC

Volatile Organic Compounds

Units of Measure:

bhp	=	brake-horsepower
btu	=	British Thermal Unit
cfm	=	cubic feet per minute
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
m ²	=	square meter
min	=	minute
mm	=	million
MMbtu	=	million btu
MMcf	=	million cubic feet
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scfm	=	standard cubic feet per minute
yr	=	year

Appendix A
Engineering Evaluation
Application #2292

WINCUP

S-25 through S33 EPS Pre Puff Storage Bins, and

S-34 EPS Pre Puff Storage Bag

Application No. 2292

April 1, 2003

INTRODUCTION

Wincup manufactures foam cups from Expanded Polystyrene (EPS) pellets and emits pentane, a VOC, in the process. The pellets are expanded in several steps; S-25 through S-33 EPS Pre Puff Storage Bins, and S-34 EPS Pre Puff Storage Bag contain partially expanded pellets prior to their being molded into foam cups and emit residual pentane. S-25 through 33 bins is vented to S-1 and 2 boilers where pentane emissions are abated. P/O #202 requires overall abatement of S-11 through S-15 pre-expanders to be no less than 90%, and that abatement factor will be applied to S-25 through S-33 EPS Pre Puff Storage Bins. S-34 EPS Pre Puff Storage Bag is a mesh bag and all residual pentane emissions are released into the workspace.

EMISSIONS

Sampling performed on 9/14/00 by Wincup indicated 0.482% pentane emitted from the EPS Pre Puff Storage Bins; rounding this figure to 0.5% will provide an estimate of emissions from this step. Emissions from S-25 through S-33 EPS Pre Puff Storage Bins and S-34 EPS Pre Puff Storage Bag are provided in Table 1.

Total VOC emissions from these sources are 5.813 tpy. Attachment 2 indicates the facility currently has zero (0) VOC emissions; hence this amount represents the cumulative increase for this application.

COMPLIANCE

S-25 through S-33 EPS Pre Puff Storage Bins and S-34 EPS Pre Puff Storage Bag will comply with Regulation 8 Rule 52 Section 301; emissions will not exceed 2.8 lb VOC/100 lb raw material throughput for these operations.

Emissions do not trigger a toxics risk screening analysis.

This project is over 1000 feet from the nearest school and therefore is not subject to the public notification requirement of Regulation 2-1-412.

This application is considered to be ministerial under the District's CEQA Regulation 2-1-311 because the evaluation is a ministerial action conducted using the fixed standards and objective measurements outlined in the District's Permit Handbook, Chapter 5.4.

BACT, NSR, Offsets, PSD, NSPS, and NESHAPS are not triggered.

RECOMMENDATION

Issue a Permit to Operate for:

- S-25 EPS Pre Puff Storage Bin, Handi-Kup, 192 cu.ft,
emissions abated by S-1 and S-2 Boilers
- S-26 EPS Pre Puff Storage Bin, Handi-Kup, 192 cu.ft,
emissions abated by S-1 and S-2 Boilers
- S-27 EPS Pre Puff Storage Bin, Handi-Kup, 192 cu.ft,
emissions abated by S-1 and S-2 Boilers
- S-28 EPS Pre Puff Storage Bin, Handi-Kup, 192 cu.ft,
emissions abated by S-1 and S-2 Boilers
- S-29 EPS Pre Puff Storage Bin, Handi-Kup, 256 cu.ft,
emissions abated by S-1 and S-2 Boilers
- S-30 EPS Pre Puff Storage Bin, Handi-Kup, 256 cu.ft,
emissions abated by S-1 and S-2 Boilers
- S-31 EPS Pre Puff Storage Bin, Handi-Kup, 256 cu.ft,
emissions abated by S-1 and S-2 Boilers
- S-32 EPS Pre Puff Storage Bin, Handi-Kup, 256 cu.ft,
emissions abated by S-1 and S-2 Boilers
- S-33 EPS Pre Puff Storage Bin, Handi-Kup, 50 cu.ft,
emissions abated by S-1 and S-2 Boilers
- S-34 EPS Pre Puff Storage Bag, Handi-Kup, 175 cu.ft

PERMIT CONDITIONS

- 1) Throughput of EPS Pre Puff material shall not exceed 1.8 million lbs. in each source 25 through 28 in any consecutive 12-month period. Throughput of EPS Pre Puff material shall not exceed 2.2 million lbs. in each source 29 through 32 in any consecutive 12-month period. Throughput of EPS Pre Puff material shall not exceed 400,000 lbs. in source 33 in any consecutive 12-month period. Throughput of EPS Pre Puff material shall not exceed 685,000 lbs. in source 34 in any consecutive 12-month period.
[cumulative increase]
- 2) Emissions from sources 25 through 33 shall be abated at all times by S-1 and S-2 boilers.
[cumulative increase]
- 3) Records of material throughput in each source shall be maintained in a District approved logbook and shall be made readily available upon District staff request. Records shall be maintained for a period of 5 years from the date of entry. [recordkeeping]

TABLE 1

Source	Max. Annual Throughput, lb	VOC lb/yr @ 0.5%	VOC lb/yr abated @90%	*Maximum VOC lb/day	Lb VOC /100 lbs raw mat'l
25	1.8E6	9,000	900	2.52	0.005
26	1.8E6	9,000	900	2.52	0.005
27	1.8E6	9,000	900	2.52	0.005
28	1.8E6	9,000	900	2.52	0.005
29	2.2E6	11,000	1,100	3.08	0.005
30	2.2E6	11,000	1,100	3.08	0.005
31	2.2E6	11,000	1,100	3.08	0.005
32	2.2E6	11,000	1,100	3.08	0.005
33	4.0E5	2,000	200	0.56	0.005
34	6.85E5	3,425	0	9.59	0.50

* Based on 357 workdays annually, per Wincup data forms

Appendix B
Engineering Evaluation
Application # 7833

WINCUP

S-35, 36, and S-37 EPS Pre Puff Storage Bins

Application No. 7833

September 3, 2003

INTRODUCTION

Wincup manufactures foam cups from Expanded Polystyrene (EPS) pellets and emits pentane, a VOC, in the process. The pellets are expanded in several steps; existing S-25 through S-33 EPS Pre Puff Storage Bins, and S-34 EPS Pre Puff Storage Bag contain partially expanded pellets prior to their being molded into foam cups and emit residual pentane. S-25 through S-34 were permitted in application no.2292.

Wincup is requesting to replace S-25 and S-26 EPS Pre Puff Storage bins with S-35 and S-36 EPS Pre Puff Storage bins, remove S-33 EPS Pre Puff Storage bin (no replacement), and remove S-34 EPS Pre Puff Storage Bag and replace it with S-37 EPS Pre Puff Storage bin. There will be no increase in emissions due to this change.

While Wincup has improved, somewhat, the capture of pentane emissions from the head space in all S-27 through S-32, and S-35 through S-37 EPS Pre Puff Storage bins, a plant visit and District source test conducted on 8/26/03 indicates that the total capture efficiency is somewhat unquantifiable due to some pentane continuing to be emitted into the workspace and outside the bin vents on the roof. Therefore, Wincup (Doug Fuller) agrees that attempting to quantify any additional pentane capture and abatement would require more focused and detailed source testing on these sources than is currently necessary and Wincup is satisfied with not requesting additional abatement credit, at this time.

Due to the new configuration of the EPS Pre Puff Storage Bins (Wincup installed an “electric eye” which reduces the capacity of the bins), the maximum throughput of EPS pre-puff material in sources 27, 28, and 35 through 37 bins. This reduced throughput has been reflected in condition number 1 amendments. Source 29 through 32 throughputs are not affected.

EMISSIONS

Sampling performed on 9/14/00 by Wincup indicated 0.482% pentane emitted from the EPS Pre Puff Storage Bins; rounding this figure to 0.5% will provide an estimate of emissions from this step. Emissions from S-27 through S-32, and S-35 through S-37 EPS Pre Puff Storage bins are provided in Table 1. Total VOC emissions from these sources are 5.813 tpy. These emissions were previously charged to the facility in Application no. 2292.

COMPLIANCE

S-27 through S-32, and S-35 through S-37 EPS Pre Puff Storage bins will comply with Regulation 8 Rule 52 Section 301; emissions will not exceed 2.8 lb VOC/100 lb raw material throughput for these operations.

Emissions do not trigger a toxics risk screening analysis.

This project is over 1000 feet from the nearest school and therefore is not subject to the public notification requirement of Regulation 2-1-412.

This application is considered to be ministerial under the District's CEQA Regulation 2-1-311 because the evaluation is a ministerial action conducted using the fixed standards and objective measurements outlined in the District's Permit Handbook, Chapter 5.4.

BACT, NSR, Offsets, PSD, NSPS, and NESHAPS are not triggered.

RECOMMENDATION

Issue a Permit to Operate for:

- S-35 EPS Pre Puff Storage Bin, Handi-Kup, 189 cu.ft,
emissions abated by S-1 and S-2 Boilers
- S-36 EPS Pre Puff Storage Bin, Handi-Kup, 189 cu.ft,
emissions abated by S-1 and S-2 Boilers
- S-37 EPS Pre Puff Storage Bin, Handi-Kup, 189 cu.ft,
emissions abated by S-1 and S-2 Boilers

PERMIT CONDITIONS

Condition No. 19810, created in application no. 2992, is amended as follows in application no. 7833:

- 4) The owner/operator shall not allow throughput of EPS Pre Puff material to exceed ~~4.8~~ 1.5 million lbs. in each source ~~25 27, through 28~~ and source 35 through 37 in any consecutive 12-month period. Throughput of EPS Pre Puff material shall not exceed 2.2 million lbs. in each source 29 through 32 in any consecutive 12-month period. ~~Throughput of EPS Pre Puff material shall not exceed 400,000 lbs. in source 33 in any consecutive 12-month period. Throughput of EPS Pre Puff material shall not exceed 685,000 lbs. in source 34 in any consecutive 12-month period.~~ [cumulative increase]
- 5) The owner/operator shall abate emissions from sources ~~25 27~~ through 28 32 and source 35 through 37 at all times by S-1 and S-2 boilers. [cumulative increase]
- 6) The owner/operator shall maintain records of material throughput in each source in a District approved logbook and the records shall be made readily available upon District staff request. Records shall be maintained for a period of 5 years from the date of entry. [recordkeeping]

TABLE 1

Source	Max. Annual Throughput, lb	VOC lb/yr @ 0.5%	VOC lb/yr abated @90%	*Maximum VOC lb/day	Lb VOC /100 lbs raw mat'l
25	1.5E6	9,000	900	2.52	0.005
26	1.5E6	9,000	900	2.52	0.005
27	1.5E6	9,000	900	2.52	0.005
28	1.5E6	9,000	900	2.52	0.005
29	2.2E6	11,000	1,100	3.08	0.005
30	2.2E6	11,000	1,100	3.08	0.005
31	2.2E6	11,000	1,100	3.08	0.005
32	2.2E6	11,000	1,100	3.08	0.005
33	1.8E5	2,000	200	0.56	0.005
34	6.85E5	3,425	0	9.59	0.50
35	1.5E6	9,000	900	2.52	0.005
36	1.5E6	9,000	900	2.52	0.005
37	1.5E6	9,000	900	2.52	0.005

* Based on 357 workdays annually, per Wincup data forms

Appendix C

**Engineering Evaluation
Application # 8944**

WINCUP

Change in Permit Conditions S-8 and S-18 through S-24 U.V. Printers And Associated Clean-up Solvent

Application No. 8944

June 2, 2004

INTRODUCTION

Wincup manufactures foam cups from Expanded Polystyrene (EPS) pellets and also uses printers to code product information. Currently, Wincup is permitted to use 16 printers; S-8 consists of 9 printers, grouped; S-18 through S-24 are single printers. All printers have associated clean-up solvent operations. Wincup is proposing to group the 16 printers and associated clean-up solvent operations into three new source numbers:

S-38 U.V. Printers, 6 Printers

S-39 U.V. Printers, 5 Printers

S-40 U.V. Printers, 5 Printers

EMISSIONS

The attached Table 1 on page 1 shows the 3 year average ink & solvent usage for the 16 printers at S-8, and S-18 through S-24. Average printer ink emissions are 0.03 tpy and average printer clean-up emissions are 3.87 tpy for a total of 3.90 tpy.

Page 2 indicates Wincup's proposal to split the 16 printers into 3 new sources designated S-38, 39, and 40, each to be limited in throughput as indicated in the tables shown to keep within the District's Grouping Guidelines (Policy Memo of 11/7/96).

Total emissions from the clean-up solvent and ink are 2.61 tpy and 0.035 tpy, respectively, for a total of 2.65 tpy. Therefore, there is no emission increase and no emission offsets are required for S-38, 39, and 40.

Page 3 shows the emissions from the proposed new solvent cleaner to be designated S-41. S-41 is the subject of A#9596; it is shown here only because the difference in emissions between the grouped sources of S-38, 39, and 40, and their 3-year average ink and solvent usage amounts to $3.90 - 2.65 = 1.25$ tpy. Emission from S-41 solvent cleaner is 1.05 tpy and offsets will come from contemporaneous emission reductions from the 1.25 tpy remaining after the grouping of S-38, 39, and 40, resulting in a net reduction of 0.20 tpy.

COMPLIANCE

S-38, 39, and 40 U.V. printers will continue to comply with Regulation 8 Rule 4 Section 302; emissions from each will not exceed 5 tons annually.

Emissions do not trigger a toxics risk screening analysis.

This project is over 1000 feet from the nearest school and therefore is not subject to the public notification requirement of Regulation 2-1-412.

This application is considered to be ministerial under the District's CEQA Regulation 2-1-311 because the evaluation is a ministerial action conducted using the fixed standards and objective measurements outlined in the District's Permit Handbook, Chapter 5.7.

BACT, NSR, Offsets, PSD, NSPS, and NESHAPS are not triggered.

RECOMMENDATION

Issue a Permit to Operate for:

S-38 U.V. Printers, 6 Printers

S-39 U.V. Printers, 5 Printers

S-40 U.V. Printers, 5 Printers

PERMIT CONDITIONS

Permit conditions for S-38, 39, and 40 U.V. Printers, Wincup, Plant #1317, A#8944

1. Owner/operator shall not exceed 666.67 gallons ink throughput at each source in any consecutive 12-month period. [Basis: Cumulative increase]
2. Owner/operator shall not exceed 248.33 gallons solvent throughput at each source in any consecutive 12-month period. [Basis: Cumulative increase]
3. Owner/operator shall not exceed 2.65 tpy POC emissions from ink and clean-up solvent usage combined in any consecutive 12-month period. [Basis: Cumulative increase]
4. Owner/operator shall not use any ink with a volatile organic compound (VOC) content in excess of 0.5% VOC by weight. [Basis: Cumulative increase]
5. Owner/operator shall not use any clean-up solvent with a volatile organic compound (VOC) content in excess of 7 lb/gal. [Basis: Cumulative increase]

6. Owner/operator shall obtain written authorization from the District prior to using any clean-up solvent other than “Evap-A”. [Basis: Cumulative increase]
7. Owner/operator shall maintain records of ink and clean-up solvent usage on a monthly basis in a District-approved logbook and made readily available to District staff upon request.
[Basis: Recordkeeping]

Appendix D
Engineering Evaluation
Application #9596

WINCUP

S-41 Solvent Cleaning Operation

Application No. 9596

INTRODUCTION

Wincup manufactures foam cups from Expanded Polystyrene (EPS) pellets and also uses printers to code product information. Previously, Wincup was permitted to use 16 printers -- S-8 consisted of 9 printers, grouped; S-18 through S-24 were single printers. All printers had associated clean-up solvent operations. In application no. 8944, Wincup received District authorization to group the 16 printers and associated clean-up solvent operations into three new source numbers: S-38 U.V. Printers consisting of 6 Printers, S-39 U.V. Printers consisting of 5 Printers, and S-40 U.V. Printers consisting of 5 Printers. In this application, Wincup is proposing to install the following new source:

S-41 Cold Solvent Cleaner Degreaser, McMaster-Carr, Tub-Style Parts Washer, 30 Gallon Capacity

This source will be used to clean the above-grouped UV printers using a new solvent called Wash Up Evap A. This solvent is a blend of safe solvents and surfactants used to clean a variety of inks from printing operations. Wash Up A is very effective on UV inks used on plastic containers and cups. The vapor pressure is low (less than 0.5 mm at 20 degrees Celsius). The solvent is 100% VOC and has a density of 7.02 pounds per gallon . It is anticipated that the VOC emissions emitted per unit (gallons) using Wash Up Evap A would be less than the old Anhydrol solvent because of its low volatility. However, no attempt was made to allow for any perceived credit due to low volatility in this application.

EMISSIONS

Usage: 300 gallons/year
Density: 7.02 pounds/gallon
% VOC: 100

$300 \text{ gal/yr} \times 7.02 \text{ lbs/gal} = 2106 \text{ lbs/year POC (1.05 TPY)}$

$\text{Highest Day} = 1.4 \text{ gals/day} \times 7.02 \text{ lbs/day} = 9.83 \text{ lbs/day}$

CUMULATIVE INCREASE

	Existing		Current
POC:	0 TPY	+	1.05 TPY = 1.05 TPY

BEST AVAILABLE CONTROL TECHNOLOGY (BACT)

BACT is triggered for source that emit more than 10 pounds of any single pollutant on a highest day per Regulation 2-2-301. BACT is not triggered in this application since the source will emit 9.83 lbs/day. If BACT were triggered, the source would likely be in compliance with BACT 2 requirements for cold solvent cleaning operations. BACT 2 requires compliance with Regulation 8, Rule 16 for all solvents, and equipped with cover and freeboard ratio ≥ 0.75 minimizing the use of solvents, and use of lowest practical vapor pressure solvents. In accordance with the memorandum of February 17, 2000, by William deBoisblanc, the applicant will be required to maintain monthly records.

OFFSETS

Pursuant to Regulation 2-2-302, offsets for POC emissions are triggered since Wincup is a major facility (> 100 TPY POC). Wincup will satisfy this offset obligation at a ratio of 1:1 through providing contemporaneous emission reduction credits from the previously grouped printing presses (S-38, S-39 and S-40) in Application #8944.

Baseline

The baseline period for S-38, S-39 and S-40 was determined in accordance with Regulation 2-2-605 which requires using the 3-year period prior to the date the application was deemed complete. Since the application was deemed complete on May 17, 2004, the 3-year period covers May 2001 to April 2004. The actual emissions emitted during this baseline period are 4.23 tons per year. See Attachment I for details. A summary of the baseline emissions is provided below.

THREE-YEAR BASELINE EMISSIONS

(May 2001 through April 2004)

	Anhydrol Cleanup Solvent (TPY)	UV Inks (TPY)
2001 (May to Dec)	2.34	0.018
2002 (Jan to Dec)	6.03	0.024
2003 (Jan to Dec)	3.44	0.024
2004 (Jan to April)	<u>0.82</u>	<u>0.006</u>
Total	12.63	0.074

$$\text{Baseline} = (12.63 + 0.074)/3 = \mathbf{4.23 \text{ TPY POC}}$$

Baseline Adjustments

The emissions reduction must be in excess of those achieved by federal, state or District rules, laws or regulations per Regulation 2-2-201. No adjustment in this area is necessary. The

baseline established for these UV printers (S-38, S-39 and S-40) are not subject to any RACT or BARCT adjustment. The governing regulation for the UV printers is Regulation 8, Rule 4 “General Solvent and Surface Coating Operations”. Each source grouping is subject to a POC mass limit of no more than 5 tons per year per Standard 8-4-302.1. Sources S-38, S-39 and S-40 collectively will not exceed 2.65 tons per year. The applicant will use closed containers to store the spent rags or paper used for cleanup.

The baseline must be adjusted to cover the continuing emissions emitted from S-38, S-39 and S-40 UV Printers since the emissions reduction must be real and permanent per Regulation 2-2-201. These sources were conditioned in Application 8994 (Condition 21500, Part 3) to not exceed 2.65 tons per year of POC emissions. Hence, the adjusted baseline is 1.58 tons/year [4.23 TPY – 2.65 TPY].

Offsets Applied

POC Emissions

1.58 TPY – 1.05 TPY = 0.53 TPY Remaining

COMPLIANCE

S-41 cold solvent cleaning degreaser will comply with Regulation 8 Rule 16. The enclosed data form SC provided by Wincup indicates the cold solvent cleaner will comply with the requirement set forth in Regulation 8-16-303. Wincup will have a container for the solvent and articles being cleaned. The degreaser will have a permanent, conspicuous label posted summarizing the applicable operating requirements. The cold cleaner degreaser (S-41) is of a closed design in which the cover opens only when the dry part is entering or exiting the unit.

Emissions do not trigger a toxics risk screening analysis. Petroleum naphtha is not a toxic compound subject to risk screening requirements.

This project is over 1000 feet from the nearest school and therefore is not subject to the public notification requirement of Regulation 2-1-412.

This application is considered to be ministerial under the District's CEQA Regulation 2-1-311 because the evaluation is a ministerial action conducted using the fixed standards and objective measurements outlined in the District's Permit Handbook, Chapter 5.7.

Offsets, PSD, NSPS, and NESHAPS are not triggered

RECOMMENDATION

Issue a Permit to Operate for:

S-41 Cold Solvent Cleaner Degreaser, McMaster-Carr, Tub-Style Parts Washer,

30 Gallon Capacity

PERMIT CONDITIONS

Permit conditions for S-41 Solvent Cleaning Operation, Wincup, Plant #1317, A#9596

1. Owner/operator shall not exceed 300 gallons solvent throughput in any consecutive 12-month period. [Basis: Cumulative increase]
2. Owner/operator shall not use any clean-up solvent with a volatile organic compound (VOC) content in excess of 7.02 lbs/gal. [Basis: Cumulative increase]
3. Owner/operator shall not exceed 10 lbs/average operating day POC emissions. [Basis: BACT]
4. Owner/operator shall obtain written authorization from the District prior to using any clean-up solvent other than "Wash Up Evap-A". [Basis: Cumulative increase, Toxics]
5. Owner/operator shall maintain records of ink and clean-up solvent usage on a monthly basis in a District-approved logbook. Records shall be maintained on site for a period of at least 5 years from date of entry. The logs shall be made readily available to District staff upon request. [Basis: Recordkeeping]

Appendix E
Compliance Report